

ATTACHMENT 5

**Final IS-MND, Public Comment
with Response, and MMRP**



COUNTY OF SANTA BARBARA

Planning and Development

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Final Initial Study-Mitigated Negative Declaration

Brookside Avenue Fire Station

November 17, 2021



Owner/Applicant:

County of Santa Barbara
Fire Department
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Santa Barbara, CA 93110

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FINAL INITIAL STUDY-MITIGATED NEGATIVE DECLARATION

In accordance with Section 15074 of the California Environmental Quality Act (CEQA) Guidelines, the County of Santa Barbara (County), as the lead agency, has reviewed the comments received on the Draft Initial Study-Mitigated Negative Declaration (IS-MND) for Brookside Avenue Fire Station (project).

The Draft IS-MND was circulated for a 30-day public review period that began October 5, 2021 and concluded on November 4, 2021. During that time, one comment letter was received on the Draft IS-MND, which is included as Attachment H of this Final IS-MND, along with the County's response to the comment letter.

The Draft IS-MND with any necessary revisions collectively comprise the Final IS-MND for the project. Any changes made to the text of the Draft IS-MND to correct information, data, or intent, other than minor typographical corrections or minor working changes, are noted in the Final IS-MND as changes from the Draft IS-MND. Changes in the Draft IS-MND text are signified by ~~strikeout~~ where text is removed and by underline where text is added.

In addition, the Mitigation Monitoring and Reporting Program (MMRP) for the Brookside Avenue Fire Station accompanies the Final IS-MND. Public Resources Code Section 21081.6(a)(1) requires that a lead agency adopt an MMRP before approving a project to mitigate or avoid significant impacts that have been identified in an IS-MND. The MMRP is included as Attachment I of the Final IS-MND.

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1.0 REQUEST/PROJECT DESCRIPTION

1.1 OVERVIEW

The County of Santa Barbara (County) is proposing to construct a new approximately 8,600-square foot (s.f.) fire station with three apparatus bays at the western terminus of Brookside Avenue, immediately north of Union Valley Parkway on Assessor's Parcel Number (APN) 107-321-013. The proposed Brookside Avenue Fire Station (herein referred to as "proposed project" or "project") would serve the Orcutt and Santa Maria Valley area west of U.S. Highway 101 (U.S. 101). The community of Orcutt is located in unincorporated Santa Barbara County, immediately south of the city of Santa Maria (Figure 1). The project site is located in Key Site 27 of the Orcutt Community Plan Area and includes a portion of the Orcutt Open Space Area in the northwest corner. The parcel is overlain with the Airport Approach Zone (F[APR]) but outside the Airport No Build Zone. Figure 2 shows the boundaries of the Orcutt Community Plan Area, and Figure 3 shows the project site.

The proposed project would comply with policies from the Fire Protection subsection of the Orcutt Community Plan. The project is compatible with current land use and zoning designations and would not require a comprehensive plan amendment or rezone.

1.2 PROJECT OBJECTIVE

The purpose of the proposed project is to increase safety in the Orcutt and Santa Maria area. As addressed in the Fire Protection subsection of the Orcutt Community Plan, additional firefighter, equipment, and construction of or expansion of existing stations will be necessary to meet the future fire protection service needs of the community as buildout in the Orcutt Planning Area (OPA) occurs. In addition, areas on the periphery of the OPA experience limited fire protection services due to limited access. These areas include southeast Orcutt, which experiences complicated access for fire trucks due to many cul-de-sacs and dead-end roads.

Currently, the Orcutt and Santa Maria Valley area is served by County Fire Station 21, located at 335 Union Avenue, which also serves the communities of Tanglewood and Casmalia, and County Fire Station 26, located at 1596 Tiffany Park Court, which serves the area bounded to the south by Solomon Grade, to the north by Santa Maria Way, to the west by Bradley Road, and to the east by Dominion Road. The best practices standard of response time for fire service is commonly considered to be five minutes per the National Fire Protection Association (NFPA) standards. Fire Stations 21 and 26 do not currently meet the five-minute response time standard in developed portions or the Urban Core (a 3,600-acre sub-area of major commercial and residential uses in the OPA) along with Key Sites 25 through 32 and 34. In addition, South, West, and East Orcutt sub-areas within the Orcutt Community Plan contain fire-related hazards. Most of South Orcutt is outside the five-minute response time radius, except for the portion adjacent to Clark Avenue west of U.S. 101. South Orcutt contains foothills with dense vegetation on steep slopes that create high fire hazards during dry times. Within West Orcutt, some high fire hazard areas are located in the northeastern corner of Key Site 22 and scattered throughout the Casmalia Hills. East Orcutt contains high fire hazard areas in the southeastern portion, and most of East Orcutt is outside the five-minute response zone, except for about half of the Lake Marie Estates.

The proposed project would improve safety and emergency response times to the Orcutt and Santa Maria Valley area by increasing the number of local fire stations from two to three. Increasing the number of fire stations in the OPA to three would substantially improve fire services in the OPA and surrounding unincorporated areas. This expansion would enable the Santa Barbara County Fire Department (SBCFD) to achieve the following objectives:

- Add a new three-person fire station crew on duty around the clock;

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- Meet the NFPA five-minute response time for fire service throughout the OPA;
- Substantially improve emergency response times for fires, accidents, and emergency medical response calls in the OPA and surrounding unincorporated areas

1.3 PROJECT DESCRIPTION

This Initial Study-Mitigated Negative Declaration (IS-MND) evaluates the potential environmental impacts related to the construction of a new fire station in the OPA. The proposed project consists of a 8,600-s.f. fire station with a maximum roof height of 32 feet. The project also includes three drive-through bays for fire trucks and associated apparatus that would connect to three driveways: one at the western terminus of Brookside Avenue and two along Union Valley Parkway. Emergency vehicles (i.e., fire engines and ambulances) would egress onto Union Valley Parkway through the westernmost driveway and return to the station via the second driveway along Union Valley Parkway. The interior of the proposed fire station would include amenities such as bedrooms, bathrooms, a communal kitchen, dining area, fire station captain's office, day room, workout area, laundry room with extractor units, among other amenities. In addition, the project would include 15 parking spaces on site, including two accessible spaces. Areas adjacent to the fire station would include native and drought tolerant landscaping. Additionally, the project frontage along Union Valley Parkway would be lined with raised landscaped berms and other screening features, per DevStd KS27-2 in the Orcutt Community Plan (County of Santa Barbara 1997a). Figure 4 shows the conceptual site plan for the proposed fire station.

The project would include one or two aboveground fuel tanks for the storage of up to 250 gallons of gasoline and up to 1,000 gallons of diesel. If only one fuel tank is on the site, the tank would be bifurcated to hold both gasoline and diesel fuels. An emergency diesel-powered generator would also be located on the northeast side of the proposed fire station. The generator would be tested weekly by station personnel and run twice annually for testing. The emergency generator is conservatively estimated to have a 150-kilowatt (kW) capacity, and it would be completely shielded by a Level 2 sound-attenuated enclosure that would include a roof, similar to a trash enclosure. Additional exterior structures would include a trash and recycling enclosure and storage area for lawn and gardening tools to the north of the main building.

Construction Activities

Preliminary construction, including grading and site preparation, would occur approximately over a four-month period. All grading would be balanced on-site with a maximum excavation depth of 10 feet. Subsequent building construction would occur over a 12- to 14-month period. It is anticipated project construction would begin the summer of 2027 and the station would begin operations by early 2029.

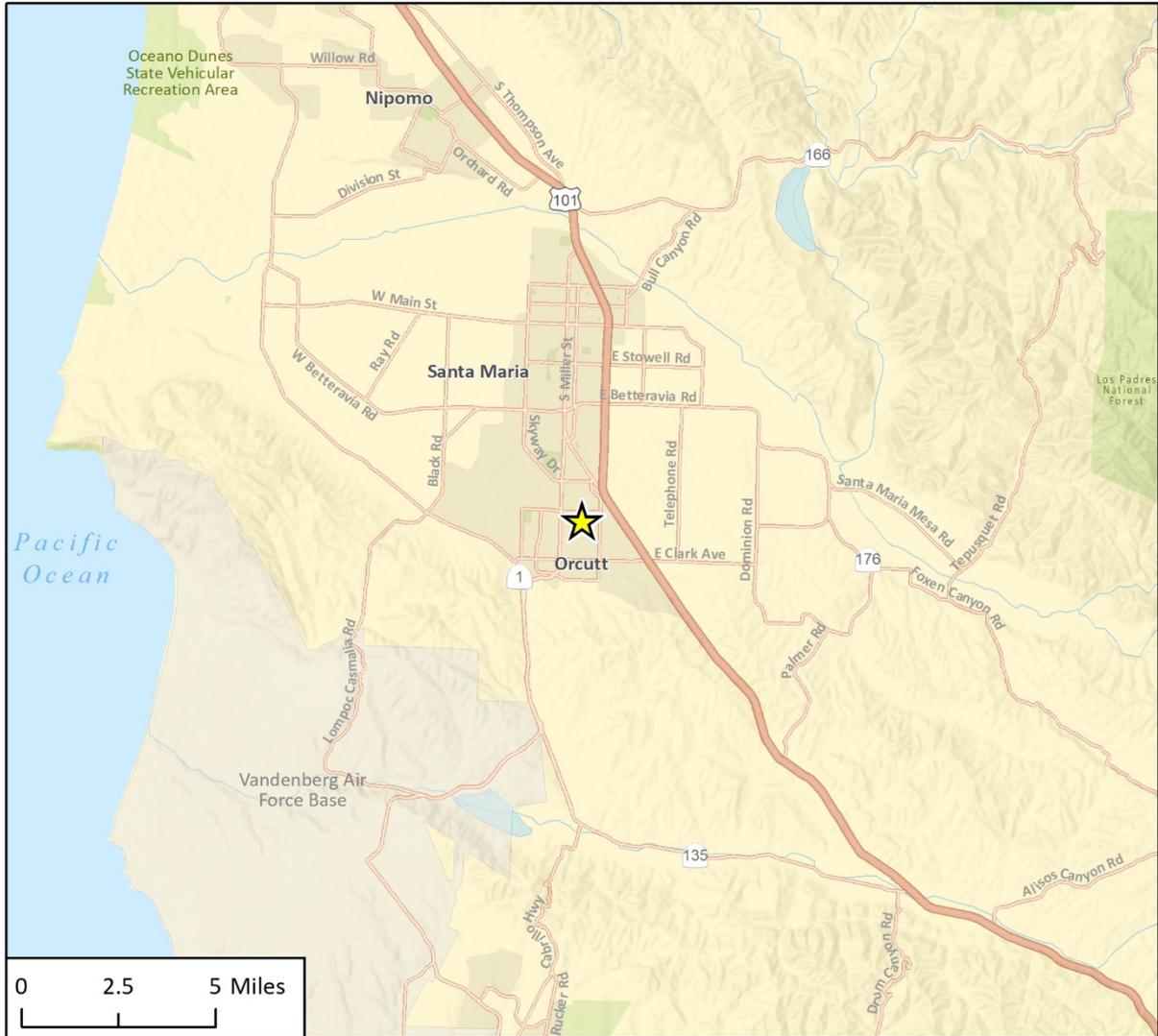
Existing Allowed Uses

The project site currently contains 4.6 acres of vacant lands, with a residential zoning designation of DR-3.3 (Design Residential) and a Comprehensive Plan designation of RES-3.3 (Residential). The project site is located within the Airport Approach Zone (F[APR]), which imposes additional development standards, but outside the Airport No Build Zone. The project is compliant with the current land use and zoning designations and is considered an allowed use.

1.4 PROJECT APPROVALS

The proposed project would include the construction and operation of a new fire station in the community of Orcutt in unincorporated Santa Barbara County. Approval of this IS-MND by the County Board of Supervisors will be required prior to commencement of construction for the project. Grading and occupancy permits will be required for construction and operation of the proposed fire station. No approvals by agencies other than the County of Santa Barbara would be required.

Figure 1 Regional Location Map



★ Project Location

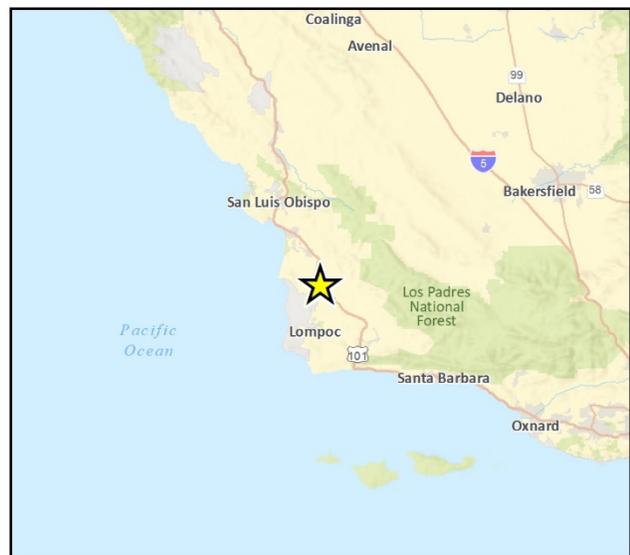
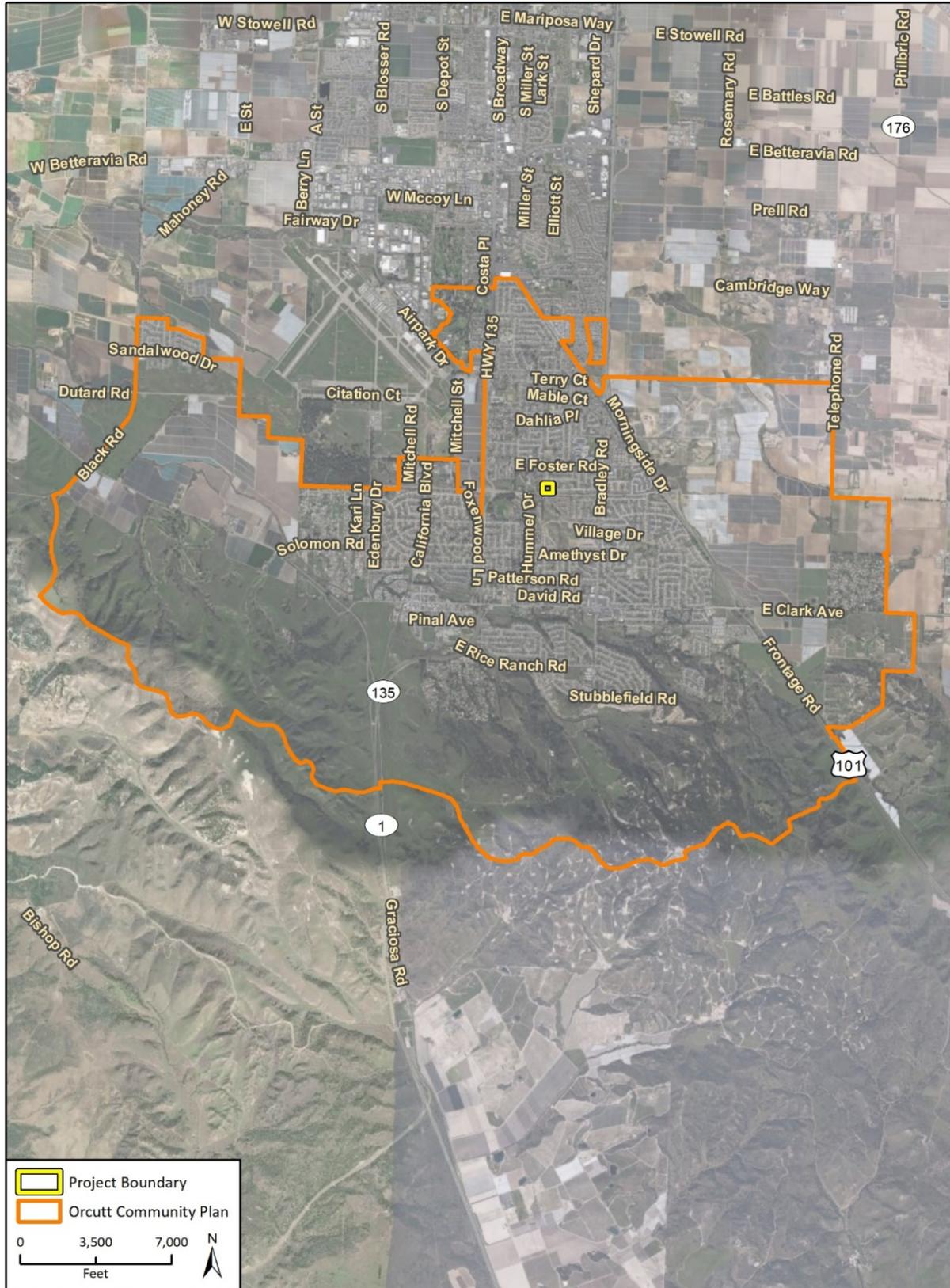


Fig 3 Regional Location

Figure 2 Orcutt Community Plan Area

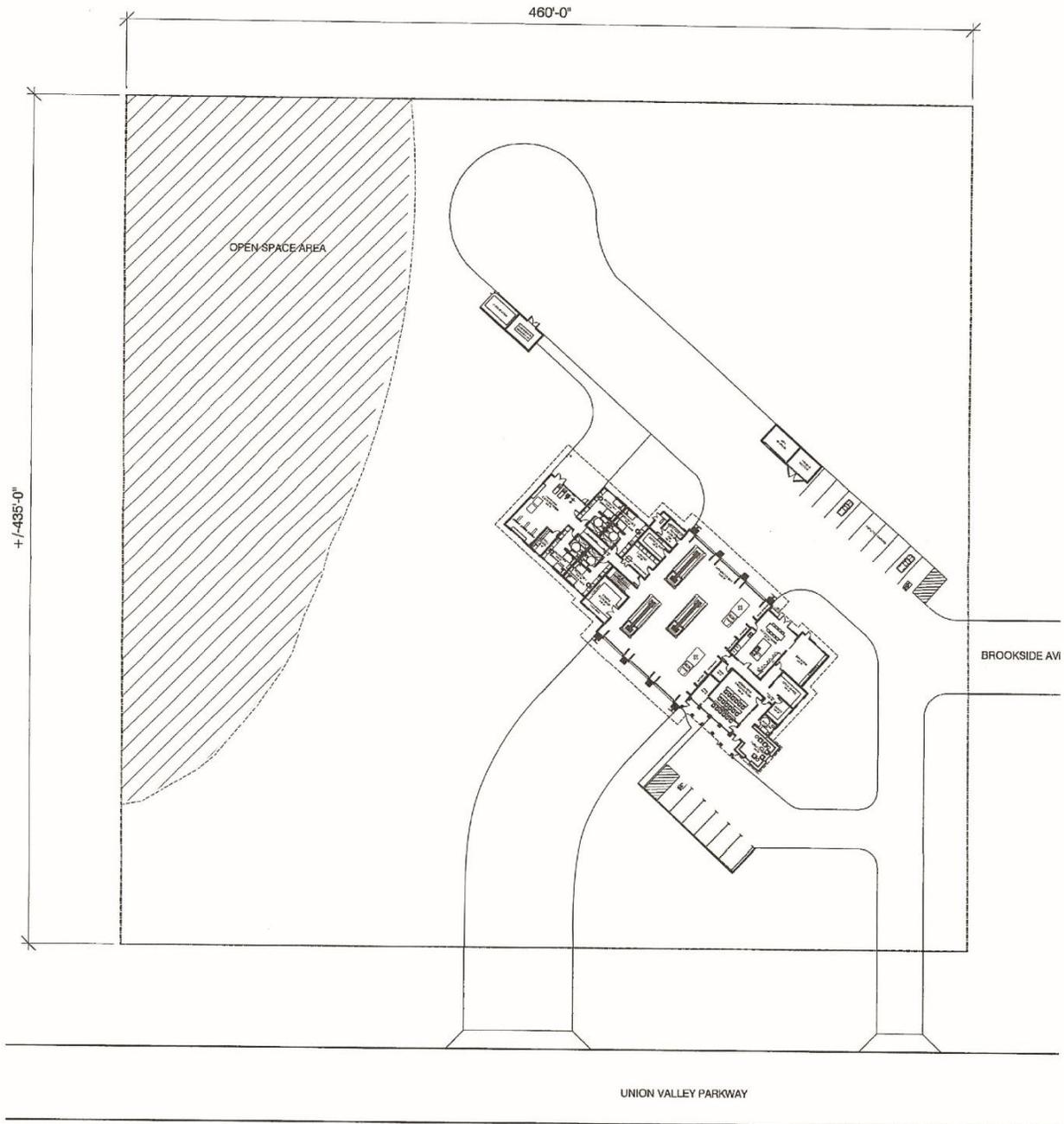


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Additional data provided by Santa Barbara County, 2021

Figure 3 Project Location



Figure 4 Conceptual Site Plan



2.0 PROJECT LOCATION

The project site (APN 107-321-013) is located in the center of the Urban Core area of the community of Orcutt in unincorporated Santa Barbara County and west of U.S. 101. The project site is located at the western terminus of Brookside Avenue, immediately north of Union Valley Parkway. The Orcutt Community Planning Area contains 43 “Key Sites.” The County previously identified within each Key Site the areas suitable for development, as well as constrained areas within each Key Site. The project site is part of Key Site 27 and contains a portion of the Orcutt Open Space Area. The Orcutt Community Plan anticipates future development of the site would not include the northwestern corner, which contains a eucalyptus grove in undeveloped open space.

Figure 1 (above) shows the regional location of the project site to understand its context within the greater Santa Barbara County area and adjacent counties. Figure 2 (above) shows the location of the project site within the OPA. Figure 3 (above) shows the boundaries of the project site and roadways within and adjacent to the site. Table 1 summarizes land use, access, and public services applicable to the project site.

Table 1 Land Use and Public Services

Project Site Information	
Comprehensive Plan Designation	Residential (Res-3.3)
Zoning District, Ordinance	Design Residential (DR-3.3)
Project Site Size	4.6 acres
Present Use and Development	Vacant, undeveloped land
Surrounding Uses/Zoning	North: Zoning: Residential (DR-4.6 and 8-R-1) Land Use: Residential (Res-3.3 and Res-4.6) South: Zoning: Residential (DR-3.3) and Recreation (REC) Land Use: Planned Development-3.3, Recreation and Open Space (REC), and Residential (Res-4.6) East: Zoning: Residential (10-R-1) Land Use: Residential (Res 3.3) and Educational Facility (Community Facility land use type) West: Zoning: Residential (DR-3.3) and Commercial (C-2) Land Use: Planned Development – 3.3 and Residential (RES-3.3)
Access	Western terminus of Brookside Avenue and Union Valley Parkway
Public Services	Water Supply: Golden State Water Company, sourced from the Santa Maria Groundwater Basin Sewage: Laguna County Sanitation District Wastewater Reclamation Facility Fire: Santa Barbara County Fire Department, Stations 21 and 26 Other: N/A District: Fourth Supervisorial District

3.0 ENVIRONMENTAL SETTING

3.1 PHYSICAL SETTING

The project site (APN 107-321-013) is located just north of Union Valley Parkway at the western terminus of Brookside Avenue. The site is 4.6 acres of vacant, undeveloped land containing low-lying grasslands, a eucalyptus grove on the western portion of the site, a culvert and a water utility box on eastern portion of the site, a natural gas pipeline and gas pipeline marker in the southwestern corner of the site and concrete debris in the northeastern corner of the site.

An elevated knoll exists on site with slopes between 10 and 20 percent to the north and south of the knoll. Slopes greater than 30 percent exist on the southern perimeter of the site. Soils on the site are composed primarily of Marina sand and Oceano sand soil units. The project site is adjacent to single-family residential neighborhoods and Orcutt Open Space Area.

3.2 ENVIRONMENTAL BASELINE

The environmental baseline from which the project's impacts are determined consists of the physical environmental conditions in the vicinity of the project site, as previously described.

3.3 CUMULATIVE IMPACTS METHODOLOGY

The discussion of cumulative impacts contained in this IS-MND is based on a list of past, present, and probable future projects producing related or cumulative impacts (CEQA Guidelines Section 15130[b][1][A]). Table 2 summarizes the list of projects included in the cumulative impact analysis.

Table 2 Cumulative Projects List

No.	Project Name	Location (APN)	Description	Project Status
Orcutt Community Plan Area				
1	PCEC Solar Photovoltaic System Grading	101-020-074	20 acres of Solar Development	In Process
Santa Maria Valley – Old Town Orcutt and Orcutt Community Plan				
2	Orcutt Union Plaza Phase II Amendment	105-121-006	Includes 19 residential units/lots and 16,880 s.f. of commercial use	In Process

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No.	Project Name	Location (APN)	Description	Project Status
3	OUSD Senior Housing (Key Site 17) Development Plan	105-134-004, 105-134-005, 105-330-005, 105-330-006	7,745-s.f. community center building primarily for use by residents, 7,252-s.f. non-residential daycare center for 36 students and 10 employees, 0.75-acre public park, 108 dwelling units (20 for employees, the rest for seniors), and special care home with 116 beds (memory care and assisted living)	Proposed
Santa Maria Valley – Orcutt Community Plan				
4	Addamo Winery/Diamante [TM 14,616]	129-151-042	Includes 5 residential units/lots	Under Construction
5	Rice Ranch Development Plan	101-010-013, 101-020-004, 105-140-016	Includes 725 residential units/lots	Under Construction
6	Clark Avenue Commercial	103-750-038	Includes 12,875 s.f. of commercial use	Approved
7	Key Site 20 Development Plan	107-250-008	Includes 69 residential units/lots	In Process
8	Terrace Villas [TM 14,770]	129-300-001 through -20	Includes 16 residential units/lots	Approved
9	Key Site 3 Development Plans	129-151-02	Unknown	In Process
10	Oasis General Plan Amendment	105-020-063, 105-020-064	Includes 15,333 s.f. of commercial use	In Process
11	Orcutt Public Marketplace	129-120-024	Includes 252 residential units/lots and 211,264 s.f. of commercial use	Proposed
12	Vintage Ranch Tract Map [TM 14,812]	101-400-008	Includes 41 residential units/lots	In Process
13	Key Site 30 MR-O Apartments and Fine Grading	107-250-008	Includes 214 residential units/lots	Under Construction
14	Orcutt Gateway Retail Center (Key Site 2)	129-280-001	Includes 49,921 s.f. of commercial use	In Process

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No.	Project Name	Location (APN)	Description	Project Status
15	The Neighborhoods of Willow Creek & Hidden Canyon Specific Plan	113-250-015 through -017	143 residential units/lots on APNs 113-250-015 through -017, and 146 residential units/lots on APN 113-250-016	In Process
16	Key Site 3 New Multi-Family Residential Project	129-151-026	Includes 160 residential units/lots	In Process
17	Orcutt Gas Station	107-011-026	Includes 7,868 s.f. of commercial use	In Process
18	Guy Tentative Parcel Map [TPM 14,836]	129-151-019	TPM 14,836 to subdivide a 10-acre parcel into two 5-acre parcels	In Process
19	Freebourn Tentative Parcel Map [TPM 14,847]	111-251-001	Tentative Parcel Map to divide existing 3.89-acre parcel into 3 residential lots	In Process
Source: County of Santa Barbara Planning and Development Department, Cumulative Projects List for the Entire County(March 5, 2021)				

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4.0 POTENTIALLY SIGNIFICANT EFFECTS CHECKLIST

The following checklist indicates the potential level of impact and is defined as follows:

Potentially Significant Impact: A fair argument can be made, based on the substantial evidence in the file, that an effect may be significant.

Less Than Significant Impact with Mitigation: Incorporation of mitigation measures has reduced an effect from a Potentially Significant Impact to a Less Than Significant Impact.

Less Than Significant Impact: An impact is considered adverse but does not trigger a significance threshold.

No Impact: There is adequate support that the referenced information sources show that the impact simply does not apply to the subject project.

Reviewed Under Previous Document: The analysis contained in a previously adopted/certified environmental document addresses this issue adequately for use in the current case and is summarized in the discussion below. The discussion should include reference to the previous documents, a citation of the page(s) where the information is found, and identification of mitigation measures incorporated from the previous documents.

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4.1 AESTHETICS/VISUAL RESOURCES

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. The obstruction of any scenic vista or view open to the public or the creation of an aesthetically offensive site open to public view?			✓		
b. Change to the visual character of an area?			✓		
c. Glare or night lighting which may affect adjoining areas?			✓		
d. Visually incompatible structures?			✓		

Existing Setting:

The project site is located in an area designated as having “moderate” scenic value by the Open Space Element of the Santa Barbara County Comprehensive Plan (2009). No officially designated State or local scenic highways located near the project site. U.S. 101, which is an eligible scenic highway, is located approximately one mile east of the project site, and the site is not visible from the highway. Public views of the project site are limited to motorists on Union Valley Parkway and Brookside Avenue. Views of the project site from Union Valley Parkway consist of slopes on the southern boundary of the project site and the on-site elevated knoll. The eucalyptus grove that is within the Orcutt Open Space Area on the western portion of the project site is highly visible from Union Valley Parkway. Travelers on the western end of Brookside Avenue have a direct view of the project site, which consists of low lying, non-native grasses as well as the eucalyptus grove.

County Environmental Thresholds:

The Visual Aesthetics Impact Guidelines in the County Environmental Thresholds and Guidelines Manual (County Environmental Thresholds) (County of Santa Barbara 2021a) classify coastal and mountainous areas, the urban fringe, and travel corridors as “especially important” visual resources. A project may have the potential to create a significantly adverse aesthetic impact if (among other potential effects) it would impact important visual resources, obstruct public views, remove significant amounts of vegetation, substantially alter the natural character of the landscape, or involve extensive grading visible from public areas. The County Environmental Thresholds address public, not private views.

The following questions are intended to provide information to address the criteria specified in Appendix G. Affirmative answers to the following questions indicate potentially significant impacts to visual resources:

- 1a. Does the project site have significant visual resources by virtue of surface waters, vegetation, elevation, slope, or other natural or man-made features which are publicly visible?
- 1b. If so, does the proposed project have the potential to degrade or significantly interfere with the public’s enjoyment of the site’s existing visual resources?
- 2a. Does the project have the potential to impact visual resources of the Coastal Zone or other visually important area (i.e., mountainous area, public park, urban fringe, or scenic travel corridor)?
- 2b. If so, does the project have the potential to conflict with the policies set forth in the Coastal Land Use Plan, the Comprehensive Plan, or any applicable community plan to protect the identified views?

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3. Does the project have the potential to create a significantly adverse aesthetic impact through obstruction of public views, incompatibility with surrounding uses, structures, or intensity of development, removal of significant amounts of vegetation, loss of important open space, substantial alteration of natural character, lack of adequate landscaping, or extensive grading visible from public areas?

Impact Discussion:

- a. **Less than significant.** The proposed project includes construction of a new 8,600-s.f. fire station that would be 32 feet in height. The project site is not located in an area which would affect coastal or urban fringe views, or scenic views of the Sierra Madre Mountains and Casmalia Hills. The project would be required to comply with Key Site 27 Policy KS27-1 in the Orcutt Community Plan which ensures new developed shall stay consistent with the zoning development standards such as DevStd KS27-1, "The area within the Airport 'No-Build' zone and the grove of eucalyptus trees on the western portion of the site shall remain in natural, undeveloped open space," and DevStd KS27-2, "Project landscaping shall include raised landscaped berms and other screening features along the site's frontage with Union Valley Parkway. Such landscaping shall not include solid masonry walls. The developer shall be responsible through a bond for the maintenance of the [Union Valley Parkway] frontage landscaping for a period of three years or until a maintenance district or other mechanism is formed, whichever is sooner. Eucalyptus trees onsite should be retained in the project development." (County of Santa Barbara 1997a, p.410-411). Because of the requirement to screen development on the project site along Union Valley Parkway, the project would not significantly impact a scenic vista or view open to the public along this roadway. The proposed fire station would be constructed at the terminus of the western end of Brookside Avenue, and thus, would potentially obstruct part of the views of the eucalyptus grove in the Orcutt Open Space Area in the background from the public view at the terminus of Brookside Avenue. However, the number of viewers would likely be relatively minor given that Brookside Avenue terminates in a cul-de-sac which typically result in less vehicular traffic than "through" street. Additionally, the height of the new fire station would be 32 feet, which is compatible with the 40-foot height limitation in section 35.23.060-DR Zone Standards of the County's Land Use & Development Code (County of Santa Barbara 2021). Therefore, the project's impacts to scenic vistas or views open to the public would not be aesthetically offensive to public view, and impacts would be less than significant.
- b, d. **Less than significant.** The proposed project includes construction of a new fire station on currently undeveloped land. The proposed fire station would be 32 feet in height, would be adequately set back from public-right-of-way and the Orcutt Open Space Area, and would be compliant with the Design Residential zoning development standards for the site and surrounding neighborhoods. The height of the two-story fire station would not be substantially different than the one-story houses along Brookside Avenue in the project area, considering the minor difference of one story in height. In addition, the project would include landscaping and berms to separate the project site from adjacent properties. On the southern boundary of the site, eastbound and westbound travelers along Union Valley Parkway would have limited views of the proposed fire station because the frontage of the project site along the roadway would be screened by berming and landscaping, decreasing the impact the structure would have from that roadway. However, the existing slopes along Union Valley Parkway could be considered a visual resource that could be affected by grading of the two driveways proposed along Union Valley Parkway. The project site is part of Key Site 27 of the Orcutt Community Plan and would incorporate Key Site 27 policies and development standards into its design, as mentioned under Response "a." In addition, grading would have a maximum excavation depth of 10 feet and would be designed to blend with the existing topography. As a result, the proposed project would not substantially change the visual character or visual setting for motorists traveling along Union Valley Parkway or Brookside Avenue. Impacts would be less than significant.

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- c. **Less than significant.** The proposed project would require the installation of exterior lighting fixtures as part of the design of the structure for security purposes. Exterior lighting would be designed and located so as to minimize impacts on neighboring properties and the community in general, as required by Policy VIS-O-6 of the Orcutt Community Plan (County of Santa Barbara 1997a). Additionally, Action VIS-O-6.1 and DevStd VIS-O-6.3 of the Orcutt Community Plan would ensure minimal lighting intensity required for public safety would be used on site (County of Santa Barbara 1997a). Specifically, proposed exterior lighting would be located close to the fire station, and directed downward toward the parking lot area and walkways to the building and away from existing nearby residences and open space. The nearest residences are located approximately 150 feet to the east of the proposed fire station location and would not be affected by lighting during operation of the proposed project due to distance, intervening topography, and ambient nighttime lighting already present in the vicinity. In addition, there would occasionally be headlights and emergency lights from fire engines and emergency vehicles exiting the project site, but such lighting would be temporary and would primarily be directed away from residences on Brookside Avenue as fire engines and emergency egress onto Union Valley Parkway. Construction of the project would be limited to daytime, and thus, no night lighting would be required during project construction. Furthermore, construction and operation of the proposed project would not introduce any glare-creating features on the project site. Therefore, the project would not create glare or night lighting that may affect adjoining areas, and impacts would be less than significant.

Cumulative Impacts:

Implementation of the proposed project would not result in a substantial change in the visual character of the area because the proposed project would be visually compatible with its existing surroundings. In addition, none of the cumulative projects listed in Table 2 are located near the project site and would not be visible from the project site. Thus, the project would not contribute to any cumulatively considerable effects to aesthetics.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required.

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4.2 AGRICULTURAL RESOURCES

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Convert prime agricultural land to non-agricultural use, impair agricultural land productivity (whether prime or non-prime) or conflict with agricultural preserve programs?				✓	
b. An effect upon any unique or other farmland of State or Local Importance?				✓	

Existing Setting:

Agricultural lands play a critical economic and environmental role in Santa Barbara County. Agriculture continues to be Santa Barbara County's major producing industry with a gross production value of over \$1.8 billion in 2020 (County of Santa Barbara 2021c). Furthermore, domestic livestock graze 39 percent of the rangelands in Santa Barbara County, which provides the basis for the county's multi-million-dollar livestock industry (Shapero 2019). In addition to the creation of food, jobs, and economic value, farmland provides valuable open space and maintains the county's rural character.

Several thousand acres of agricultural lands dominate the regional project setting and are primarily located approximately one mile east of the project site across U.S. 101. Agricultural operations in this setting generally range from 20 to more than 600 acres in size. Most operations include irrigated crops, such as blueberries, strawberries, blackberries, peas, squash, zucchini, tomatillos, beans, and flowers (County of Santa Barbara 2014).

The proposed project would be constructed on an approximately 4.6-acre lot zoned as Design Residential (DR-3.3). According to the California Department of Conservation (DOC), the project site is partially designated as urban and built-up land on the eastern portion with the remaining portion designated as "other lands" (DOC 2016). The project site is also located within an urban area as mapped by the Orcutt Community Plan (County of Santa Barbara 1997a). The parcel is currently vacant and undeveloped, and includes a eucalyptus grove on the western boundary.

County Environmental Thresholds:

The County's Agricultural Resource Guidelines (County of Santa Barbara 2021a) provides a methodology for evaluating agricultural resources. These guidelines utilize a weighted point system to serve as a preliminary screening tool for determining significance. The tool helps planners determine whether a proposed subdivision would divide a viable agricultural parcel into two or more parcels that are no longer viable for agricultural production. A project that would result in the loss or impairment of agricultural resources could create a potentially significant impact. The point system measures the productive ability of an existing parcel as compared to proposed parcels. The tool compares availability of resources and prevalent uses that benefit agricultural potential but does not quantifiably measure a parcel's actual agricultural production.

Initial Studies use this weighted point system in conjunction with any additional information regarding agricultural resources. The Initial Study assigns values to nine particular characteristics of agricultural productivity of a project site. These factors include parcel size, soil classification, water availability, agricultural suitability, existing and historic land use, comprehensive plan designation, adjacent land uses, agricultural preserve potential, and combined farming operations. If the tabulated points total 60 or more, the parcel is considered agriculturally viable. A project would be considered to have a potentially

significant impact on agricultural resources if a division of land or other development would result in parcels that do not score over 60 points themselves or score substantially lower than the parcel under existing conditions. Any loss or impairment of agricultural resources identified using the point system could constitute a potentially significant impact and warrants additional site-specific analysis.

Impact Discussion:

- a. **Less than significant.** The following subsections discuss the potential impacts associated with the conversion of agricultural land to non-agricultural use.

Agricultural Land Productivity – Weighted Point System. Table 3 lists the points assigned to each of the nine characteristics of agricultural productivity for APN 107-321-013. The subsections following Table 3 summarize the key factors justifying the points assigned to the parcel.

Table 3 Agricultural Suitability and Productivity Analysis

Agricultural Suitability and Productivity	Existing/Pre-Project Conditions
Parcel size <ul style="list-style-type: none"> • Less than 5 acres, 0-3 points • 5-10 acres, 4-6 • 10-40 acres, 7-8 	3
Soil classification <ul style="list-style-type: none"> • Class I, 14-15 points • Class II, 11-13 points • Class III, 8-10 points • Class IV, 6-7 points • Class VI or VII, 1-5 points 	7
Water availability <ul style="list-style-type: none"> • Adequate supply, 12-15 points • May be marginal, 8-11 points • Potentially available, 3-7 points • Does not have developed water, sources of poor quality/quantity, 0-2 points 	15
Agricultural suitability <i>Crops</i> <ul style="list-style-type: none"> • Highly suitable for irrigated crops, 8-10 points • Highly suitable for irrigated ornamentals, pasture, dry farming, 6-8 points • Moderately suitable for irrigated crops, 4-5 points • Low suitability for any crops, 1-3 points <i>Rangeland</i> <ul style="list-style-type: none"> • Highly suitable for pasture or range, 6-10 points • Moderately suitable for pasture or range, 3-5 points • Low suitability for pasture or range, 1-2 points 	5
Existing and historic land use <ul style="list-style-type: none"> • Active agricultural production, 5 points • Maintained range, 5 points • Unmaintained, productive within last 10 years, 3-5 points • Vacant land: fallow or never planted with range of suitabilities of agricultural potential, 1-3 points • Substantial urban or agricultural industrial development on-site, 0 point 	3

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Agricultural Suitability and Productivity	Existing/Pre-Project Conditions
Comprehensive plan designation <ul style="list-style-type: none"> Residential less than 5 acres, 0 point 	0
Adjacent land uses <ul style="list-style-type: none"> Partially surrounded by agriculture/open space with some urban uses adjacent, in a region without adequate agricultural support uses, 3-6 points Immediately surrounded by urban uses, no buffers, 0-2 points 	2
Agricultural preserve potential <ul style="list-style-type: none"> Can qualify for prime agricultural preserve by itself, or is in a preserve, 5-7 points Can qualify for non-prime agricultural preserve by itself, 2-4 points Can qualify for prime agricultural preserve with adjacent parcels, 3-4 points Can qualify for non-prime agricultural preserve with adjacent parcels 1-3 points Cannot qualify, 0 point 	0
Combined farming operations <ul style="list-style-type: none"> Provides a significant component of a combined farming operation, 5 points Provides an important component of a combined farming operation, 3 points Provides a small component of a combined farming operation, 1 point No combined operation, 0 point 	0
TOTAL	35

Parcel Size. The project site is approximately 4.6 acres in size.

Soil Classification. The United States Department of Agriculture (USDA) classifies the soils on the project site as Class 4 when irrigated and Class 6 when not irrigated (USDA 2021).

Water Availability. According to the County Public Health Department, the project site has no permitted water well (County of Santa Barbara 2021d). The site is, however, located adjacent to residential development served by existing potable water connections from the Golden State Water Company, which sources its water from the Santa Maria Groundwater Basin. Therefore, to provide a conservative analysis, it is assumed the project site has adequate water availability.

Agricultural and Rangeland Suitability. The Conservation Element of the County Comprehensive Plan (map titled “Santa Barbara County Agricultural Suitability for Major Crops”) classifies the project site as “suitable only for certain crops” (County of Santa Barbara 2010). Therefore, the project site is classified as “moderately suitable for irrigated crops.”

Existing and Historic Land Use. The project site is currently vacant, and historic aerial imagery dating back to 1985 shows that the parcel has been vacant since at least 1985. Nonetheless, the parcel has soils that are suitable for agriculture; therefore, to be conservative, this parcel is classified as vacant/fallow agricultural lands.

Comprehensive Plan Designation. The County Comprehensive Plan designates the project site as Design Residential (DR-3.3).

Adjacent Land Uses. The project site is primarily surrounded by urban land uses, which include residential uses to the north, west, and east, and residential and recreational/open space land uses to the south.

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Agricultural Preserve Potential. The Santa Barbara County Uniform Rules for Agricultural Preserves and Farmland Security Zones (Uniform Rules) (County of Santa Barbara 2021e) state that a parcel may qualify for an agricultural preserve contract if the parcel satisfies the following requirements:

- Comprehensive Plan designation of Agricultural Commercial, Agriculture I, Agriculture II, or Mountainous Area;
- Zoning designation of Agriculture, Mountainous, or Resource Management;
- Minimum parcel size of 40 acres for prime or superprime land and 100 acres for nonprime land; and
- Land is and will be used principally for the active production of commercial agricultural products (grazing and/or cultivated agriculture) and has a secure water source to support the agricultural activity.

The project site is approximately 4.6 acres in size and is not designated for an agricultural use by the Comprehensive Plan. As a result, this parcel is too small and is not zoned to qualify for the County Agricultural Preserve Program.

Combined Farming Operations. The project site is not currently under agricultural production. Therefore, it is not currently part of a combined farming operation.

Overall Rating. Projects that affect a parcel scoring 60 or more points may have a potentially significant impact on agricultural resources. As shown in Table 3, the project site scored 35 points. Therefore, the project site has relatively low agricultural suitability and productivity, and constructing the proposed project on this parcel would have a less than significant impact on agricultural land productivity and agricultural resources.

*Prime Agricultural Land*¹

The USDA Natural Resources Conservation Service uses land capability classifications to show the suitability of soils for field crops. The classification groups soils in the following three levels: capability class, subclass, and unit. Capability classes, the broadest group, range from Class 1 through Class 8. The numbers indicate progressively greater limitations and narrower choices for agricultural use. For example, Class 1 soils have few limitations that restrict their use. Class 8 soils have limitations that preclude commercial plant production. The County Environmental Thresholds (County of Santa Barbara 2021a) state, “Classes I [1] and II [2] are considered to be prime agricultural soils because they impose few limitations on agricultural production, and almost all crops can be grown successfully on these soils.” The USDA classified the soils on the project site as Class 4 irrigated and Class 6 non-irrigated (USDA 2021). Therefore, these soils do not qualify as prime agricultural soils, and the proposed project would not impact prime agricultural soils.

Agricultural Preserve Program

The project site is not enrolled in the County Agricultural Preserve Program (County of Santa Barbara 2020a). Therefore, the proposed project would not conflict with the County Agricultural Preserve Program.

¹ The County Environmental Thresholds (County of Santa Barbara 2021a) uses the terms “prime agricultural soils” and “prime agricultural land.” The County Environmental Thresholds define “prime agricultural soils” as soils that the USDA has classified as Class 1 or Class 2. The County Environmental Thresholds do not define “prime agricultural land.” Therefore, the impact discussion under item (a) evaluates the project’s potential impacts on prime agricultural soils.

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In summary, the proposed project would not convert prime agricultural soil to non-agricultural use, impair agricultural land productivity, or conflict with agricultural preserve programs. Therefore, the project would result in less than significant impacts on agricultural resources.

- b. **Less than significant.** The DOC's Farmland Mapping and Monitoring Program (FMMP) rates and maps (Important Farmland Maps) agricultural lands according to soil quality and irrigation status. For environmental review under CEQA, the FMMP classifies agricultural lands into the following five categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. Prime Farmland has the best physical and chemical features for agriculture. Farmland of Statewide Importance is similar to Prime Farmland but has greater slopes or other minor shortcomings and only includes irrigated lands. Unique Farmland has lesser quality soils used for the state's leading crops and may include non-irrigated lands. Farmland of Local Importance is land of importance to the local agricultural economy as determined by each county. Grazing Land has vegetation suitable for the grazing of livestock. The FMMP periodically updates the Important Farmland Maps, which were last updated within the vicinity of the project site in 2016.

The FMMP classifies the project site as urban and built-up land, and Google Earth aerial imagery shows the project site has been vacant since at least 1985 (DOC 2016). Therefore, the project would not result in an effect upon any unique or other farmland of State or Local Importance, and impacts would be less than significant.

Cumulative Impacts:

The County's environmental thresholds, in part, define the point at which a project's contribution to a regionally significant issue constitutes a significant effect at the project level. As discussed above, the proposed project would not exceed the thresholds of significance for impacts to agricultural resources. Therefore, the project's contribution to the regionally significant loss of agricultural resources would not be considerable, and the cumulative effect on regional agriculture would be less than significant.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required.

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4.3a AIR QUALITY

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. The violation of any ambient air quality standard, a substantial contribution to an existing or projected air quality violation, or exposure of sensitive receptors to substantial pollutant concentrations (emissions from direct, indirect, mobile and stationary sources)?		✓			
b. The creation of objectionable smoke, ash or odors?				✓	
c. Extensive dust generation?		✓			

Existing Setting:

The project site is located in the community of Orcutt in unincorporated Santa Barbara County. The climate in and around Orcutt, as well as most of southern California, is dominated by the strength and position of the semi-permanent high-pressure center over the Pacific Ocean near Hawaii. It creates cool summers, mild winters, and infrequent rainfall. It drives the cool daytime sea breeze and maintains a comfortable humidity range and ample sunshine after the frequent morning clouds dissipate. However, the same atmospheric processes that create the desirable living climate combine to restrict the ability of the atmosphere to disperse the air pollution generated by the population attracted in part by the desirable climate.

Air pollutant emissions are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

- Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.
- Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and can also be divided into two major subcategories:

- On-road sources that may be legally operated on roadways and highways.
- Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Based on typical wind patterns, locally generated air pollutant emissions are carried offshore at night and toward inland Santa Barbara County by day. Dispersion of pollutants is restricted when the wind velocity for nighttime breezes is low. However, the lack of development in inland Santa Barbara County causes few air quality problems during nocturnal air stagnation. Daytime ventilation is usually much more vigorous. Both summer and winter air quality in the project area is generally very good. The closest air monitoring station to the project site is the Santa Maria-906 South Broadway monitoring station, located in downtown Santa Maria. This station measures ozone (O₃), particulate matter with diameter of 10 micrometers or less (PM₁₀), and sulfur dioxide.

Regulatory Framework:

The federal and State Clean Air Acts (CAA) mandate the control and reduction of certain air pollutants. Under these laws, the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for “criteria pollutants” and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide, volatile organic compounds (VOC)/reactive organic compounds (ROC),² nitrogen oxides (NO_x), PM₁₀, particulate matter of 2.5 microns or less (PM_{2.5}), sulfur dioxide, and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROC and NO_x. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog). By law, the federal standards may be exceeded not more than once per year, while the California standards may not be exceeded at all.

Air Quality Standards and Attainment

The project site is located in the South Central Coast Air Basin (SCCAB), which encompasses San Luis Obispo, Santa Barbara, and Ventura counties and is under the jurisdiction of the Santa Barbara County Air Pollution Control District (SBCAPCD). As the local air quality management agency, the SBCAPCD is required to monitor air pollutant levels to ensure that the NAAQS and CAAQS are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the SCCAB is classified as being in “attainment” or “nonattainment.” In areas designated as non-attainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants, and the human health impacts associated with these criteria pollutants, presented in Table 4 are already occurring in that area as part of the environmental baseline condition. Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. Santa Barbara County is currently designated nonattainment for the state standard for PM₁₀, nonattainment for the state and federal standard for 1-hour and 8-hour ozone, and attainment or unclassifiable for all other federal and state ambient air quality standards (SBCAPCD 2021). These nonattainment statuses are a result of several factors, including mobile and stationary sources in the SCCAB.

Table 4 Health Effects Associated with Non-Attainment Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.

² CARB defines VOC and ROC similarly as, “any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate,” with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROC and VOC are considered comparable in terms of mass emissions, and the term ROC is used in this IS-MND.

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Pollutant	Adverse Effects
Suspended particulate matter (PM ₁₀)	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma). ¹
Source: United States Environmental Protection Agency 2018	

Air Quality Management

Because Santa Barbara County is designated nonattainment for the state ozone and PM₁₀ standards, the SBCAPCD is required to implement strategies to reduce pollutant levels to achieve attainment of the NAAQS and CAAQS. The 2019 Ozone Plan is the current SBCAPCD Board-adopted air quality management plan for the County. The 2019 Ozone Plan incorporates and builds upon the prior Clean Air Plans and predominantly focuses on achieving attainment of the state ozone standards, in addition to the federal ozone standard. The 2019 Ozone Plan focuses on reducing ozone precursor emissions through implementation of transportation control measures that serve to reduce mobile source emissions, which are the primary source of ROC and nitrogen oxides emissions in the county (SBCAPCD 2019). The major sources of ozone precursor emissions in Santa Barbara County are motor vehicles, the petroleum industry, and solvent usage (paints, consumer products and certain industrial processes). Sources of PM₁₀ include mineral quarries, grading, demolition, agricultural tilling, road dust, and vehicle exhaust (County of Santa Barbara 2021a).

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following typical groups who are most likely to be affected by air pollution: children under 14 years of age; elderly over 65 years of age; athletes; and people with cardiovascular and chronic respiratory diseases. Land uses typically associated with sensitive receptors include schools, parks, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and clinics (CARB 2005). The sensitive receptors nearest to the project site include adjacent single-family and multi-family residential land uses located to the north and east. Additional single-family residences to the south of Union Valley Parkway are approximately 300 feet from the project site.

County Environmental Thresholds:

Chapter 5 of the County Environmental Thresholds (2021a) address air quality. Based on the County Environmental Thresholds, air quality impacts would be considered significant if the project:

- Interferes with progress toward the attainment of the ozone standard by releasing emissions which equal or exceed the established long-term quantitative thresholds for NO_x and ROC; or
- Equals or exceeds the state or federal ambient air quality standards for any criteria pollutant (as determined by modeling).

The County Environmental Thresholds (2021a) and the SBCAPCD do not provide thresholds for short-term construction emissions. However, SBCAPCD recommends quantification of construction-related emissions from construction activities and uses 25 tons per year for ROC and NO_x as a guideline for determining the significance of construction impacts. In addition, under SBCAPCD Rule 202.F.3, if the

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combined emissions from all construction equipment used to construct a stationary source which requires an Authority to Construct have the potential to exceed 25 tons of any pollutant, except carbon monoxide, in a 12-month period, the owner of the stationary source shall provide offsets under the provisions of Rule 804 and shall demonstrate that no ambient air quality standard would be violated. Therefore, this analysis uses 25 tons per year as a significance threshold for construction-related emissions of ROC, NO_x, sulfur dioxide, PM₁₀, and PM_{2.5}.

The County's Grading Ordinance (Santa Barbara County Code, Chapter 14) requires standard dust control conditions for most projects. In addition, the County Environmental Thresholds (2021a) require implementation of dust mitigation measures for all discretionary construction activities that involve earth-moving activities regardless of project size or duration because the Santa Barbara County region is designated nonattainment for the state PM₁₀ standard.

The County Environmental Thresholds provide operational emission thresholds, which state that operational air quality impacts would not be considered significant if the project:

- Emit (from all project sources, mobile and stationary), less than the daily trigger (Currently 55 pounds per day for NO_x and ROC, 80 pounds per day for PM₁₀, and 240 pounds per day for attainment pollutants (except PM_{2.5} and carbon monoxide) for offsets set in the APCD New Source Review Rule, for any pollutant; and
- Emit less than 25 pounds per day of oxides of nitrogen (NO_x) or reactive organic compounds (ROC) from motor vehicle trips only; and
- Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone); and
- Not exceed the APCD health risk public notification thresholds adopted by the APCD Board; and
- Be consistent with the adopted federal and state Air Quality Plans.

The County Environmental Thresholds also state that a project will have a significant air quality impact if it causes a carbon monoxide "hotspot" by adding emissions to existing background carbon monoxide levels that exceed the California one-hour standard of 20 parts per million, which typically occurs at severely congested intersections. The County provides the following screening criteria for carbon monoxide impacts:

- If a project contributes less than 800 peak hour trips, then carbon monoxide modeling is not required.
- Projects contributing more than 800 peak hour trips to an existing congested intersection at level of service (LOS) D or below, or that will cause an intersection to reach LOS D or below, may be required to model for CO impacts. However, projects that will incorporate intersection modifications to ease traffic congestion are not required to perform modeling to determine potential carbon monoxide impacts.

The County Environmental Thresholds recommend discussing the following issues if they are applicable to the project:

- Emissions which may affect sensitive receptors (e.g., children, elderly, or acutely ill);
- Toxic or hazardous air pollutants in amounts which may increase cancer risk for the affected population; or
- Odor or other air quality nuisance problems impacting a considerable number of people.

For cumulative impacts, the County Environmental Thresholds state that a project's contribution to the cumulative air quality impact of the region's nonattainment designation for ozone would be cumulatively considerable if a project's total emissions of ozone precursors (NO_x or ROC) would exceed the County's operational threshold of 55 lbs/day. For projects that do not have significant ozone precursor emissions or

localized pollutant impacts, emissions have been taken into account in the 2019 Ozone Plan growth projections; therefore, these projects would not have a cumulatively considerable contribution to the cumulative air quality impact.

Methodology

Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod uses project-specific information, including the project's land uses, square footages for different uses (e.g., Government and Parking Lot), and location, to model a project's construction and operational emissions. The analysis reflects the construction and operation of the project as described under *Project Description*.

Construction emissions modeled include emissions generated by construction equipment used on-site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. CalEEMod estimates construction emissions by multiplying the amount of time equipment is in operation by emission factors. Construction of the proposed project was analyzed based on the general construction schedule timeframe provided by County staff and standard CalEEMod assumptions on construction equipment. Construction would occur over approximately 18 months, and soil material would be balanced on site. It is assumed all construction equipment used would be diesel-powered. This analysis assumes the project would comply with all applicable regulatory standards. In particular, the project would comply with SBCAPCD Rules 345 and 323.1.

Operational emissions modeled include mobile source emissions (i.e., vehicle emissions), energy emissions, area source emissions, and stationary sources emissions (i.e., generator). Mobile source emissions are generated by vehicle trips to and from the project site. According to the Institute of Transportation Engineers *Trip Generation Handbook, 10th edition*, fire and rescue station land uses have an average trip generation rate of 0.48 afternoon peak hour trips per 1,000 s.f. (Institute of Transportation Engineers 2017). Using an industry standard assumption that peak hour traffic is approximately 10 percent of average daily traffic, the average trip generation rate for fire and rescue station land uses is approximately 4.8 trips per 1,000 s.f. (Precision Traffic & Safety Systems 2021). Therefore, for the purposes of emissions modeling, it was assumed the project would generate approximately 41 average daily trips (4.8 trips per thousand square feet x 8.6 thousand square feet). Emissions attributed to energy use include natural gas consumption by appliances as well as for space and water heating. Area source emissions are generated by landscape maintenance equipment, consumer products and architectural coatings. An emergency diesel generator would generate stationary source emissions and tested for a total of 30 hours per year.

Impact Discussion:

- a, c. **Less than significant with mitigation.** The following subsections discuss air pollutant emissions generated by project construction and operation.

Short-term Construction Emissions:

Criteria Air Pollutants

Project construction would involve site preparation, grading, building construction, paving, and architectural coating, which would temporarily generate air pollutant emissions. Project construction activity would emit ozone precursors NO_x and ROC, as well as carbon monoxide, sulfur dioxide, PM₁₀, and PM_{2.5}. The majority of construction-related emissions would result from grading due to the use of heavy-duty construction equipment and fugitive dust generation. Other emissions would result from building construction, paving and the evaporation of ROC from

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architectural coatings (paint). Table 5 summarizes estimated annual construction emissions for the proposed project. As shown therein, project construction would generate approximately less than one ton per year of ROC, sulfur dioxide, PM₁₀, and PM_{2.5} emissions and approximately 1 ton per year of NO_x emissions. Therefore, construction emissions would not exceed the County's threshold of 25 tons per year for ROC, NO_x, sulfur dioxide, PM₁₀, and PM_{2.5}. Furthermore, the County of Santa Barbara considers short-term construction emissions of NO_x to be less than significant because countywide emissions of NO_x from construction equipment is insignificant compared to regional NO_x emissions from other sources, such as vehicles (County of Santa Barbara 2021a). Therefore, impacts would be less than significant.

Table 5 Anticipated Proposed Project Construction Emissions

	Maximum Annual Emissions (tons/year)					
	ROC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Maximum Annual Construction Emissions	< 1	1	2	< 1	< 1	< 1
County Threshold	25	25	n/a	25	25	25
Threshold Exceeded?	No	No	No	No	No	No
Notes: All emissions modeling was completed using CalEEMod. See Attachment A for CalEEMod outputs for modeling results. Some numbers may not sum exactly due to rounding. Emission data shown is from "mitigated" results, which account for compliance with regulations and project design features.						

Fugitive Dust

Project construction activities would be subject to the County's grading ordinance to minimize fugitive dust emissions and associated impacts to air quality. The grading ordinance requires a grading permit and an Erosion and Sediment Control Plan for all new grading, excavations, fills, cuts, borrow pits, stockpiling, compaction of fill, and land reclamation projects on privately owned land where the transported amount of materials exceeds 50 cubic yards or the cut or fill exceeds three feet in vertical distance to the natural contour of the land.³ Soil cut and fill for the proposed project would be balanced on site. Because the County is designated nonattainment for the state standard for PM₁₀, the County and the SBCAPCD require implementation of standard dust control measures for all discretionary projects based on the policies in the 1979 Air Quality Attainment Plan, which was most recently updated in the 2019 Ozone Plan. Although PM₁₀ emissions from project construction activities would not exceed the County's thresholds, the project's impacts related to PM₁₀ emissions and extensive dust generation would be potentially significant because the project, as proposed, would not implement the County's and SBCAPCD's dust control measures. With implementation of Mitigation Measure Air-01 (see below), which requires implementation of the County's and SBCAPCD's dust control measures, the potential impacts would be reduced to a less-than-significant level. Therefore, impacts would be less than significant with mitigation.

Construction Toxic Air Contaminant (TAC) Emissions

³ The County accepts a Stormwater Pollution Prevention Plan (SWPPP) in lieu of an Erosion and Sediment Control Plan, as long as the SWPPP contains the requirements of the County's Erosion and Sediment Control Plan.

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Toxic air contaminants (TACs) are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. Construction-related activities would result in temporary project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. DPM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of DPM (discussed in the following paragraphs) outweighs the potential non-cancer health impacts (CARB 2020) and is therefore the focus of this analysis.

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction of the proposed project would occur over approximately 18 months. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the California Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of proposed construction activities (i.e., 18 months) is approximately five percent of the total exposure period used for 30-year health risk calculations. Current models and methodologies for conducting health-risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities, resulting in difficulties in producing accurate estimates of health risk (Bay Area Air Quality Management District 2017).

The maximum PM₁₀ and PM_{2.5} emissions would occur during the site preparation and grading activities. These activities would last for approximately four months. PM emissions would decrease for the remaining construction period because construction activities such as building construction and architectural coating would require less intensive construction equipment. While the maximum DPM emissions associated with site preparation, and grading activities would only occur for a portion of the overall construction period, these activities represent the worst-case condition for the total construction period. This would represent approximately one percent of the total 30-year exposure period for health risk calculation. Given the aforementioned discussion, DPM generated by project construction would not create conditions where the probability is greater than 10 in one million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than one for the Maximally Exposed Individual. Therefore, project construction would not expose sensitive receptors to substantial TAC concentrations, and impacts would be less than significant.

Long-term Operational Emissions:

Criteria Air Pollutants

Operation of the project would generate criteria air pollutant emissions associated with area sources (e.g., consumer products, landscape equipment), energy sources (i.e., use of natural gas for space and water heating and cooking), and mobile sources (i.e., vehicle trips to and from the project site). Table 6 summarizes the project's maximum daily operational emissions by emission source. As shown therein, operational emissions would not exceed SBCAPCD regional thresholds for criteria pollutants of 55 pounds per day for ROC and NO_x, 80 pounds per day for

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PM₁₀ and 240 pounds per day for attainment pollutants (except PM_{2.5} and carbon monoxide). Therefore, project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be less than significant.

Table 6 Anticipated Proposed Project Operational Emissions

	Maximum Daily Emissions (lbs/day)					
	ROC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	< 1	< 1	< 1	< 1	< 1	< 1
Energy	< 1	< 1	< 1	< 1	< 1	< 1
Mobile	< 1	< 1	1	< 1	< 1	< 1
Stationary	< 1	1	< 1	< 1	< 1	< 1
Total	1	1	1	< 1	< 1	< 1
County Threshold	55	55	n/a	240	80	n/a
Threshold Exceeded?	No	No	No	No	No	No
Mobile Only	<1	<1	1	< 1	<1	< 1
County Threshold	25	25	N/A	N/A	N/A	N/A
Threshold Exceeded?	No	No	N/A	N/A	N/A	N/A
Notes: All emissions modeling was completed using CalEEMod. See Attachment A for CalEEMod outputs for modeling results. Some numbers may not sum exactly due to rounding. Emission data shown is from “mitigated” results, which account for compliance with regulations and project design features.						

Carbon Monoxide Hotspots

Localized carbon monoxide “hotspots” can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local carbon monoxide concentration exceeds the federal ambient air quality standard of 35.0 parts per million (ppm) or the State ambient air quality standard of 20.0 ppm.

The County recommends a local carbon monoxide hotspot analysis if the project would contribute more than 800 peak hour trips to an existing congested intersection at LOS D or below. According to the Institute of Transportation Engineers’ *Trip Generation Handbook, 10th edition*, fire and rescue station land uses have an average trip generation rate of 0.48 afternoon peak hour trips per 1,000 s.f. (Institute of Transportation Engineers 2017). Therefore, the project would generate approximately four peak afternoon trips (0.48 peak hour trips/thousand square feet x 8.6 thousand square feet). Therefore, project-generated traffic would not exceed the screening criteria of adding 800 peak hour trips to an existing congested intersection, and a local carbon monoxide hotspot analysis is not warranted. In addition, according to SBCAPCD, due to the relatively low background ambient carbon monoxide levels in Santa Barbara County, localized carbon monoxide hotspot impacts associated with congested intersections are not expected to exceed the

carbon monoxide health-related air quality standards. Therefore, SBCAPCD no longer requires carbon monoxide hotspot analyses. No impact related to carbon monoxide hotspots would occur.

Operational Toxic Air Contaminant Emissions

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). SBCAPCD adopted similar recommendations in its *Scope and Content of Air Quality Sections in Environmental Documents* (2017). Together, CARB and SBCAPCD guidelines recommend siting distances both for the development of sensitive land uses in proximity to TAC sources and for the addition of new TAC sources in proximity to existing sensitive land uses. Public facility land uses are not considered land uses that generate substantial TAC emissions based on review of the air toxic sources listed in CARB's guidelines. It is expected that quantities of hazardous TACs generated on site (e.g., cleaning solvents, paints, landscape pesticides, etc.) for the types of proposed land use would be below thresholds warranting further study under the California Accidental Release Program. The analysis of vehicle trips to and from the project site would suggest minimal emissions of TACs, particularly DPM, from idling fire trucks, which would not create conditions for contracting cancer for the Maximally Exposed Individual. Because the project would not include substantial TAC sources and is consistent with CARB and SBCAPCD guidelines, it would not result in the exposure of off-site sensitive receptors to significant amounts of carcinogenic or toxic air contaminants. Impacts would be less than significant.

Consistency with Air Quality Plan:

To be determined to be consistent with the 2019 Ozone Plan, a project's direct and indirect emissions must be accounted for in the growth assumptions of the Ozone Plan and the project must be consistent with the policies in the Ozone Plan (SBCAPCD 2019). In addition, to be consistent with Ozone Plan, all projects involving earthmoving activities must implement the standard dust control measures. Proper implementation of these measures is assumed to fully mitigate fugitive dust emissions in the Mitigation Measure Air-01 below. The project would not contain any changes in the value of pollution-producing activity that would affect the growth assumptions of the 2019 Ozone Plan. Therefore, with implementation of Mitigation Measure Air-01, the project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be less than significant with mitigation incorporated.

- b. **No impact.** The proposed project would not include land uses that typically produce objectionable smoke, ash, or odors, such as agricultural uses, wastewater treatment plants, chemical plants, and composting facilities (CARB 2005). Therefore, odor emissions would be limited to emissions associated with typical construction, such as vehicle and engine exhaust. Project construction would not generate smoke or ash emissions. As a result, no impact would occur.

Cumulative Impacts:

Growth within Santa Barbara County contributes to existing exceedances of the state ozone and PM₁₀ ambient air quality standards; therefore, these exceedances represent cumulative air quality impacts. Construction and operation of the project would generate emissions of ozone precursors as well as emissions of PM₁₀. As discussed under Responses "a" and "c", the project would be required to comply with the County's grading ordinance, and implementation of Mitigation Measure Air-01 would require use of standard dust control measures required by the County and SBCAPCD. This measure would reduce PM₁₀ emissions during construction. In addition, operational emissions of ozone precursors (NO_x

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or ROC) and PM₁₀ would not exceed the County's annual operational emission threshold because the project would not induce new vehicle trips. Therefore, with implementation of Mitigation Measure Air-01, the contribution of the project to the County's nonattainment status for the state ozone and PM₁₀ standards would not be cumulatively considerable.

Mitigation and Residual Impact:

The proposed project could result in a potentially significant impact due to dust generation during construction activities. With implementation of Mitigation Measure Air-01, the potential impact would be reduced to a less-than-significant level:

- MM Air-01 Dust Control:** In addition to SBCAPCD's standard fugitive dust control measures, the project proponent shall comply with the following dust control components at all times, including weekends and holidays:
- Dust generated by the development activities shall be kept to a minimum with a goal of retaining dust on the site.
 - During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks, or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.
 - During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site.
 - The construction area shall be wetted down after work is completed for the day and whenever wind exceeds 15 miles per hour.
 - When wind exceeds 15 miles per hour, the site shall be watered at least once each day, including weekends and holidays.
 - Increased watering shall occur as necessary to prevent transport of dust off-site.
 - Soil stockpiled for more than two days shall be covered or treated with soil binders to prevent dust generation. Soil binders shall be reapplied as needed.
 - If the site is graded and left undeveloped for over four weeks, the project proponent shall immediately:
 - (i) Seed and water to revegetate graded areas;
 - (ii) Spread soil binders; and/or
 - (iii) Employ any other method(s) deemed appropriate by the County Planning and Development Department or SBCAPCD.

PLAN REQUIREMENTS: These dust control requirements shall be included in the Stormwater Pollution Prevention Plan (SWPPP).

TIMING: The dust monitor shall be designated prior to grading permit issuance. The dust control components shall apply from the beginning of any grading or construction throughout all development activities.

MONITORING: The County shall ensure measures are included on plans. The County shall spot check and ensure compliance on site. SBCAPCD inspectors shall respond to nuisance complaints.

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4.3b AIR QUALITY - Greenhouse Gas Emissions

Greenhouse Gas Emissions - Will the proposal:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓		
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				✓	

Existing Setting:

Greenhouse gases (GHGs) include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) (California Health and Safety Code § 38505(g)). These gases create a blanket around the Earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as “the greenhouse effect,” human activities have accelerated the generation of GHG emissions above pre-industrial levels (United States Global Change Research Program 2018). The global mean surface temperature increased by approximately 1.8 degrees Fahrenheit (°F; 1 degree Celsius [°C]) in the past 80 years, and is likely to reach a 2.7°F (1.5°C) increase between 2030 and 2050 at current global emission rates (IPCC 2018).

The largest source of GHG emissions from human activities in the United States is from fossil fuel combustion for electricity, heat, and transportation. Specifically, the Inventory of U.S. Greenhouse Gases and Sinks: 1990-2017 (United States Environmental Protection Agency 2019) states that the primary sources of GHG emissions from fossil fuel combustion in 2017 included electricity production (35 percent), transportation (36.5 percent), industry (27 percent), and commercial and residential end users (17 and 19 percent, respectively). Factoring in all sources of GHG emissions, the energy sector accounts for 84 percent of total emissions in addition to agricultural (8 percent), industrial processes (5.5 percent), and waste management (2 percent) sources.

The County of Santa Barbara’s Final Environmental Impact Report (EIR) for the Energy and Climate Action Plan (ECAP) (County of Santa Barbara 2015b) and the 2016 Greenhouse Gas Emissions Inventory Update and Forecast (County of Santa Barbara 2018) contain a detailed description of the proposed project’s existing regional setting as it pertains to GHG emissions. Regarding non-stationary sources of GHG emissions within Santa Barbara County specifically, the transportation sector produces 38 percent of the total emissions, followed by the building energy (28 percent), agriculture (14 percent), off-road equipment (11 percent), and solid waste (9 percent) sectors (County of Santa Barbara 2018).

The overabundance of GHG in the atmosphere has led to a warming of the Earth and has the potential to substantially change the Earth’s climate system. More frequent and intense weather and climate-related events are expected to damage infrastructure, ecosystems, and social systems across the United States (United States Global Change Research Program 2018). California’s Central Coast, including Santa Barbara County, will be affected by changes in precipitation patterns, reduced foggy days, increased extreme heat days, exacerbated drought and wildfire conditions, and acceleration of sea level rise leading to increased coastal flooding and erosion.

Global mean surface warming results from GHG emissions generated from many sources over time, rather than emissions generated by any one project (IPCC 2014). As defined in CEQA Guidelines Section 15355, and discussed in Section 15130, “‘Cumulative impacts’ refers to two or more individual effects

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which, when considered together, are considerable or which compound or increase other environmental impacts.” Therefore, by definition, climate change under CEQA is a cumulative impact.

CEQA Guidelines Section 15064.4(b) states that a lead agency “should focus its analysis on the reasonably foreseeable incremental contribution of the project’s [GHG] emissions to the effects of climate change.” A project’s individual contribution may appear small but may still be cumulatively considerable. Therefore, it is not appropriate to determine the significance of an individual project’s GHG emissions by comparing against state, local, or global emission rates. Instead, the Governor’s Office of Planning and Research recommends using an established or recommended threshold as one method of determining significance during CEQA analysis (California Governor’s Office of Planning and Research [OPR] 2018). A lead agency may determine that a project’s incremental contribution to an existing cumulatively significant issue, such as climate change, is not significant based on supporting facts and analysis (CEQA Guidelines Section 15130(a)(2)).

Regulatory Framework:

In response to climate change, California implemented Assembly Bill (AB) 32, the “California Global Warming Solutions Act of 2006.” AB 32 required the reduction of statewide GHG emissions to 1990 emissions levels (essentially a 15 percent reduction below 2005 emission levels) by 2020 and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. On September 8, 2016, the Governor signed Senate Bill (SB) 32 into law, extending AB 32 by requiring the State to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program and the Low Carbon Fuel Standard, and implementation of recently adopted policies and legislation, such as SB 1383 (aimed at reducing short-lived climate pollutants including methane, hydrofluorocarbon gases, and anthropogenic black carbon) and SB 100 (discussed further below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) of CO₂e by 2030 and two MT of CO₂e by 2050 (CARB 2017).

Other relevant state laws and regulations include:

SB 375: The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state’s ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. Metropolitan Planning Organizations are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the Metropolitan Planning Organization’s Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Santa Barbara County Association of Governments (SBCAG) was assigned targets of a 13 percent reduction in GHGs from transportation sources by 2020 and a 17 percent reduction in GHGs from transportation sources by 2035. The SBCAG 2040 Regional Transportation Plan and Sustainable Communities Strategy (2040 RTP-SCS) demonstrated the SBCAG region would achieve its regional emissions reduction targets for the 2020 and 2035 target years.

SB 100: Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state’s Renewables Portfolio Standard Program. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

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California Building Standards Code (California Code of Regulations Title 24): The California Building Standards Code consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2019 Title 24 standards. Part 6 is the Building Energy Efficiency Standards, which establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California’s energy demand. Part 12 is the California Green Building Standards Code (CALGreen), which includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures.

Greenhouse Gas Emission Reduction Planning

In 2015, the County adopted the Energy and Climate Action Plan (ECAP) (County of Santa Barbara 2015a) and certified the accompanying Final EIR for the ECAP (County of Santa Barbara 2015b). The purpose of the ECAP is to reduce GHG emissions from land use development in the County through selected emission reduction measures. The ECAP sets a GHG reduction target of 15 percent below 2007 (baseline) emissions by 2020, consistent with the State’s target established by AB 32. It contains goals, policies, and emission reduction measures to achieve this target. In this regard, the ECAP was adopted as the County’s “plan to reduce greenhouse gas emissions” in accordance with CEQA Guidelines Section 15183.5.

The County has been implementing the ECAP’s emission reduction measures. However, the 2016 Greenhouse Gas Emissions Inventory Update and Forecast concludes the County is not projected to meet its 2020 GHG reduction target (United States Environmental Protection Agency 2018b; County of Santa Barbara 2015a). Therefore, the County can no longer rely on the ECAP’s EIR or its emission reduction measures when determining the significance of a project’s GHG emissions. The County of Santa Barbara is currently in process of preparing the 2030 Climate Action Plan which is anticipated in 2022, replacing the 2015 Energy Action Plan. Furthermore, in July 2020, the County Board of Supervisors also adopted an updated target to reduce emissions in unincorporated Santa Barbara County by 50 percent below 2007 levels by 2030.

County Environmental Thresholds:

The County of Santa Barbara adopted the ECAP in 2015 as a GHG emission reduction plan. The County has been implementing the plan’s emission reduction measures since 2016. However, the County is not projected to meet the 2020 GHG emission reduction goal contained within the plan, and the plan is currently being updated. Therefore, the Board adopted Interim GHG Emissions CEQA Thresholds of Significance in January 2021.

CEQA Guidelines Section 15064.4(a) states, “A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project.” CEQA Guidelines Section 15064.4(b) further states:

A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

- (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project...

Climate change under CEQA differs from most other types of impacts in that they are examined as a cumulative impact that results not from an individual project’s GHG emissions, but rather from GHG

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emissions emitted on a global scale for many decades and from many different sources. Therefore, analysis of a project's GHG emissions under CEQA focuses solely on the incremental contribution of estimated project emissions to climate change. The CEQA Guidelines address GHG emissions as a cumulative impact given that climate change is a global phenomenon (CEQA Guidelines Section 15064.4.(b)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself" (Cleveland National Forest Foundation v. San Diego Assn. of Governments [2017] 3 Cal. 5th 497,512). A project's significant GHG impacts must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact (CEQA Guidelines Sections 15064.4.(b) and 15183.5). Therefore, GHG emissions impacts should be considered in a broader, cumulative context. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national, or global emissions (CEQA Guidelines Section 15064.4.(b)). The interim GHG emissions thresholds are designed to identify (1) a cumulatively considerable contribution to an existing adverse condition, and (2) a cumulatively significant impact in combination with other projects causing related impacts.

A CEQA lead agency may determine that a project's incremental contribution to an existing cumulatively significant issue, such as climate change, is not significant based on supporting facts and analysis (CEQA Guidelines Section 15130, *Discussion of Cumulative Impacts*, Subsection (a)(2)). The CEQA Guidelines direct that a project's contribution to a significant cumulative impact will be rendered insignificant if the project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact (CEQA Guidelines Section 15130(a)(3)). The lead agency must provide substantial evidence in the environmental document to demonstrate that mitigation required of a project represents the project's "fair-share" contribution towards alleviating the cumulative impact.

Consistent with CEQA Guidelines Section 15064.7, *Thresholds of Significance*, the County developed and adopted thresholds of significance for determining the significance of a project's GHG emissions. CEQA Guidelines Section 15064.7(a) states, "[a] threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect." Projects that comply with an applicable threshold will normally have an insignificant effect on the environment. Projects that exceed or otherwise do not comply with an applicable threshold may have a significant effect on the environment and, as a result, may require project modifications or mitigation measures to avoid or reduce those effects to insignificant levels. The following thresholds reflect this general guidance as well as the specific guidance set forth in CEQA Guidelines Section 15064.4 regarding the significance of impacts from GHG emissions.

Specifically, CEQA Guidelines Section 15064.4 states that lead agencies shall make a good faith effort to estimate or describe a project's GHG emissions. The section further states that in determining the significance of a project's GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national, or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes.

Per CEQA Guidelines Section 15064.4, County staff should consider the following factors, among others, when determining the significance of impacts from GHG emissions on the environment: (1) the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (e.g., CEQA Guidelines Section 15183.5, *Tiering and Streamlining the Analysis of Greenhouse Gas Emissions*, Subsection (b)). The CEQA Guidelines also clarify that the County has the discretion to select a model or

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methodology that it considers most appropriate for estimating GHG emissions, but that it must “support its selection of a model or methodology with substantial evidence” and “explain the limitations of the particular model or methodology selected for use.”

Methodology

The County used the California Emissions Estimator Model (CalEEMod) to estimate potential GHG emissions resulting from construction and operation of the project. CalEEMod calculates annual GHG emissions and criteria pollutants (e.g., carbon monoxide, ozone, and particulate matter) for a given project for CEQA analysis. With regard to GHG emissions, CalEEMod estimates CO₂, CH₄, and N₂O because they are the most common GHGs associated with land use developments. The model reports the annual metric tons (MT) of each pollutant as well as the total annual metric tons in carbon dioxide equivalent (CO₂e). Attachment A shows the CalEEMod outputs for the project.

The assumptions described under Section 4.3a, *Air Quality*, as well as the following assumptions were applied to the quantification of GHG emissions associated with the proposed project:

- **Amortization of Construction Emissions.** The interim thresholds apply to non-exempt discretionary projects under CEQA; specifically, land use development projects (residential and non-residential), as well as land use plans (e.g., specific plans, community plans, or master plans). Construction-related emissions are to be amortized across the lifetime of the project (i.e., dividing total construction emissions by the number of years the project is expected to be operated) (County of Santa Barbara 2021a).
- **Water Use.** CalEEMod does not incorporate water use reductions achieved by CALGreen (Part 11 of Title 24). New development would be subject to CALGreen, which requires a 20 percent increase in indoor water use efficiency and use of indoor water-efficient irrigation systems. Thus, in order to account for compliance with CALGreen, a 20 percent reduction in indoor water use the use of water-efficient irrigation systems was included in the water consumption calculations for new development.
- **Utility Energy Intensity Factors.** The project would be served by Pacific Gas and Electric (PG&E). Therefore, PG&E’s specific energy intensity factors (i.e., the amount of CO₂e per megawatt-hour) are used in the calculations of GHG emissions. However, per SB 100, the statewide Renewable Portfolio Standards (RPS) Program requires electricity providers to increase procurement from eligible renewable energy sources to 60 percent by 2030. To account for the continuing effects of the RPS, the energy intensity factors included in CalEEMod were reduced for year 2030 based on the percentage of renewables reported by PG&E. PG&E energy intensity factors that include this reduction are shown in Table 7.

Table 7 PG&E Energy Intensity Factors

	2021 (lbs/MWh)	2030 (lbs/MWh)¹
Percent procurement	28.5% ²	60%
CO ₂	203.98	114.11
CH ₄	0.033	0.018
N ₂ O	0.004	0.002
¹ RPS goal established by SB 100		
² Source: PG&E 2020		
lbs = pounds; MWh = megawatt-hour; CO ₂ = carbon dioxide; CH ₄ = methane; N ₂ O = nitrous oxide		

Impact Discussion:

- a. **Less than significant.** Temporary construction-related GHG emissions would be generated by the use of heavy-duty construction equipment and vehicle trips to and from the project site during construction activities. Table 8 summarizes the estimated construction-related GHG emissions for each year of project construction activities. As shown therein, project construction would generate approximately 392 MT of CO₂e, which would equal approximately 13 MT of CO₂e when amortized over a 30-year period.

Table 8 Estimated Construction GHG Emissions

Year	Emissions (MT of CO₂e)
2027	137
2028	254
2029	1
Total	392
Amortized over 30 years	13

MT = metric tons; CO₂e = carbon dioxide equivalents
 Notes: Emissions modeling was completed using CalEEMod. See Attachment A for modeling results.

Operation of the proposed project would generate GHG emissions associated with area sources, energy and water usage, vehicle trips, testing of the emergency generator, and wastewater and solid waste generation. As shown in Table 9, annual operational emissions generated by the proposed project combined with amortized construction emissions would total approximately 66 MT of CO₂e per year, which would not exceed the County's screening level threshold of 300 MT of CO₂e per year. Therefore, impacts would be less than significant.

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Table 9 Combined Annual GHG Emissions

Emission Source	Annual Emissions (MT of CO₂e per year)
Construction	13 ¹
Operational	
Area	<1
Energy	15
Solid Waste	23
Water	1
Mobile	12
Stationary	2
Total Emissions	66
Screening Threshold	300
Threshold Exceeded?	No

¹ Construction emissions amortized over a 30-year period.
MT = metric tons; CO₂e = carbon dioxide equivalents
Notes: Emissions modeling was completed using CalEEMod.
See Attachment A for CalEEMod outputs.

- b. **No impact.** There are numerous State plans, policies, and regulations adopted to reduce GHG emissions. The principal state plan and policy is AB 32, the California Global Warming Solutions Act of 2006, and the follow up, SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020 and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Pursuant to the SB 32 goal, the 2017 Scoping Plan was created to outline goals and measures for the State to achieve the reductions. The 2017 Scoping Plan's goals include reducing fossil fuel use and energy demand. The project would comply with the latest Title 24 Green Building Code and Building Efficiency Energy for lighting efficiency.

The SBCAG 2040 RTP-SCS demonstrated the SBCAG region would achieve its regional emissions reduction targets of a 13 percent reduction in GHG emissions from transportation sources by 2020 and a 17 percent reduction in GHG emissions from transportation sources by 2035. The project does not include housing and therefore would not directly induce population growth that would result in additional vehicle miles traveled (VMT). The proposed project would provide a small number of additional employment opportunities in the local area; however, due to the nature of these opportunities, it is expected they would be filled by current residents of the region. Therefore, the provision of additional employment opportunities would not indirectly induce substantial population growth. As a result, the project's daily VMT was accounted for in the 2040 RTP-SCS, and GHG emissions would be consistent with those evaluated in the SBCAG 2040 RTP-SCS.

The County adopted the ECAP in 2015 as its GHG emission reduction plan. The final ECAP progress report will be released in 2021, using data through 2020. Until the 2030 CAP is adopted,

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the County considered projects or plans that have emissions below interim thresholds to be consistent with County GHG emission reduction plans. The interim thresholds are part of the County's GHG emissions reduction strategy and were informed by the County's 2030 target. The interim thresholds provide a pathway to show compliance with County goals. As discussed in Response "a" above, the project would comply with interim thresholds and be consistent with the County's GHG emission reduction strategy.

The County's 2030 GHG emission reduction goal (50 percent reduction from 2007 levels by the year 2030) is consistent with the State's direction under Senate Bill 32 as codified in the California Health and Safety Code, Division 25.5, Part 4, Section 38566 (40 percent reduction below 1990 levels by 2030). CARB's 2017 Scoping Plan (CARB 2017) describes the State's strategy for achieving California's 2030 GHG emission reduction target. The 2017 Scoping Plan does not prescribe or require specific actions by local government agencies; rather, the Scoping Plan provides guidance to local agencies and CARB supports programs that assist local agencies. CARB recommends statewide targets of no more than six MT of CO_{2e} per capita by 2030, and no more than two MT of CO_{2e} per capita by 2050. The statewide per capita targets account for all emissions sectors in the State, the statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the longer term State emissions reduction goal of 80 percent below 1990 levels by 2050. This limit represents California's and these other governments' recognition of their "fair share" to reduce GHG emissions to the scientifically based levels to limit global warming below two degrees Celsius. It is recommended that local governments evaluate and adopt robust and quantitative locally appropriate goals that align with the statewide per capita targets and the State's sustainable development objectives and develop plans to achieve the local goals. The County's interim GHG emission efficiency threshold is considerably lower than the State's 2030 per capita target. Therefore, the project would be consistent with the State's GHG emission reduction strategy and the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. No impact would occur.

Cumulative Impacts:

The geographic scope for related projects considered in the cumulative impact analysis for GHG emissions is global because impacts of climate change are experienced on a global scale regardless of the location of GHG emission sources. Therefore, as discussed under the County Environmental Thresholds, GHGs and climate change are, by definition, cumulative impacts. As discussed under *Existing Setting*, the adverse environmental impacts of cumulative GHG emissions, including sea level rise, increased average temperatures, more drought years, and more large forest fires, are already occurring. As a result, cumulative impacts related to GHG emissions are significant. Thus, the issue of climate change involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. The screening level threshold of 300 MT CO_{2e} per year used to evaluate the project's GHG emissions is also intended to address cumulative GHG impacts. As shown in Table 9, the project's combined construction and operational emissions would not exceed the screening threshold; therefore, the project's contribution to cumulative GHG impacts are considered less than significant.

Mitigation and Residual Impact:

No significant impacts were identified in the above analysis; therefore, mitigation is not required.

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4.4 BIOLOGICAL RESOURCES

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
Flora					
a. A loss or disturbance to a unique, rare or threatened plant community?				✓	
b. A reduction in the numbers or restriction in the range of any unique, rare or threatened species of plants?			✓		
c. A reduction in the extent, diversity, or quality of native vegetation (including brush removal for fire prevention and flood control improvements)?			✓		
d. An impact on non-native vegetation whether naturalized or horticultural if of habitat value?			✓		
e. The loss of healthy native specimen trees?		✓			
f. Introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat?			✓		
Fauna					
g. A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals?		✓			
h. A reduction in the diversity or numbers of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates)?		✓			
i. A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)?		✓			
j. Introduction of barriers to movement of any resident or migratory fish or wildlife species?			✓		
k. Introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife?			✓		

The following impact discussion is based, in part, on a biological resources reconnaissance survey of the biological survey area (BSA) performed by Rincon Consultants, Inc. (Rincon) on July 8, 2021. The BSA includes the entire project site, plus the relatively small portion of land between the project site and Union Valley Parkway (see Figure 2 in Attachment B for the boundary of the BSA). The results of the biological resources reconnaissance survey are included in full as Attachment B (Rincon 2021a).

Existing Setting:

Flora

No native grasslands or other rare or sensitive vegetation communities or habitat types were observed within the BSA during the reconnaissance survey. The BSA contains four vegetation communities and land cover types: non-native annual grassland, eucalyptus grove, iceplant mat/landscaped, and road shoulder/disturbed. These communities and land cover types are described below and shown on Figure 5.

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Non-Native Annual Grassland

Non-native annual grassland within the BSA encompasses approximately 3.89 acres and consists primarily of exotic annual grasses and includes areas dominated by non-native grasses including rip-gut brome (*Bromus diandrus*), wild oat (*Avena fatua*), and veldt grass (*Ehrharta calycina*). Although non-native annual grasses form the dominant plant species composition, annual and perennial forbs, such as jimson weed (*Datura stramonium*) and doveweed (*Croton californicus*), are also scattered within this vegetation type. Additionally, four coast live oak (*Quercus agrifolia*) individuals that appear to have been planted occur within the southernmost region of this vegetation community. The non-native annual grassland within the BSA most closely resembles the *Bromus (diandrus, hordeaceous) – Brachypodium distachyon* Semi-Natural Herbaceous Stands in MCV2 (Rincon 2021a).

Eucalyptus Grove

Within the BSA, this alliance is dominated by blue gum eucalyptus (*Eucalyptus globulus*) as the sole tree species and is characterized by a dense stand of eucalyptus with over 80 percent cover within the tree layer. The herbaceous layer is sparse, and primarily consists of leaf litter with sparse weedy non-native grasses. This alliance is found within the eastern portion of the BSA corresponding with the area designated as Open Space. The BSA contains 1.37 acres of this vegetation community. The eucalyptus grove within the BSA most closely resembles the *Eucalyptus spp. - Ailanthus altissima - Robinia pseudoacacia* Woodland Semi-Natural Alliance in MCV2 (Rincon 2021a).

Iceplant Mat/Landscaped

Iceplant (*Carpobrotus edulis*) dominates a small area in the southern region of the BSA, bordering Union Valley Parkway. Non-native grasses occur in low abundance within this vegetation community. Planted nonnative shrubs also occur amongst the mats of iceplant. The iceplant mat vegetation community within the BSA most closely resembles the *Mesembryanthemum spp. - Carpobrotus spp.* Herbaceous Semi-Natural Alliance in MCV2 (Rincon 2021a). The BSA contains 0.15 acre of this vegetation community.

Road Shoulder/Disturbed

The road shoulder/disturbed land cover type includes areas that have been heavily disturbed or altered from natural vegetation and is associated with the shoulder of Union Valley Parkway. This land cover type consists of sparsely vegetated native and non-native species, such as ripgut brome and telegraph weed, but consist of mostly bare ground. It is not officially identified in A Manual of California Vegetation as a defined vegetation community (Rincon 2021a). The BSA contains 0.26 acre of this land cover type.

Figure 5 Vegetation Communities in the BSA



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Fig 5 Vegetation Communities

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Special-Status Plant Species

Special-status plant species are those that are either listed as endangered or threatened under the Federal or California Endangered Species Acts, or rare under the California Native Plant Protection Act, or considered to be rare or of scientific interest (but not formally listed) by resource agencies, professional organizations (e.g., Audubon Society, California Native Plant Society [CNPS], The Wildlife Society), and the scientific community.

Based on the database queries and literature review of records from the *Santa Maria, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle, the surrounding eight quadrangles, and the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation list of federally listed species reveals 69 special status plant species are known to or have the potential to occur within the vicinity of the BSA. No special status plant species were determined to have a moderate or high potential to occur within the BSA, and only four special status plant species were determined to have low potential to occur within the BSA, Hoover's bent grass (*Agrostis hooveri*; California Rare Plant Rank 1B.2), Douglas' fiddleneck (*Amsinckia douglasiana*; California Rare Plant Rank 4.2), California spineflower (*Mucronea californica*; California Rare Plant Rank 4.2), and large-flowered leptosiphon (*Leptosiphon grandiflorus*; California Rare Plant Rank 4.2); however, it is very unlikely these species would occur due to the prevalence of nonnative grasses on site and the amount of existing disturbances on and adjacent to the site.

Wetlands and Other Jurisdictional Waters

No wetlands or waters are mapped within the BSA by the USFWS National Wetlands Inventory or USGS National Hydrography Dataset and none were observed during an on-site reconnaissance survey.

Fauna

Wildlife species observed within the BSA during biological surveys were limited to common avian species and western fence lizards. There were also abundant small mammal burrows present in the BSA, likely created by gophers (*Thomomys* sp.). A complete list of species observed can be found in Appendix C of the Biological Resources Assessment.

Special-Status Wildlife Species

Based on the database queries of the USFWS Information for Planning and Consultation System, CDFW California Natural Diversity Database (CNDDDB), and CNPS Online Inventory of Rare, Threatened and Endangered Plants of California, special status animal species are known to or have the potential to occur within the vicinity of the BSA. Of those, the following six special status animal species were determined to have low potential to occur within the BSA: monarch - California overwintering population (*Danaus plexippus* pop. 1; Federal Candidate), coast horned lizard (*Phrynosoma blainvillii*; Species of Special Concern), burrowing owl (*Athene cunicularia*; Species of Special Concern), Swainson's hawk (*Buteo swainsoni*; State Threatened), American peregrine falcon (*Falco peregrinus anatum*; Fully Protected), and American badger (*Taxidea taxus*; Species of Special Concern). Because of the marginally suitable habitat or lack of certain habitat features, these species are not likely to occur within the BSA. Two species were determined to have moderate potential to occur on site, northern California legless lizard (*Anniella pulchra*; Species of Special Concern) and western spadefoot toad (*Spea hammondi*; Species of Special Concern). These species are further discussed below.

Northern California Legless Lizard:

The northern California legless lizard is a small slender lizard with no legs, has eyelids, a shovel-shaped snout, smooth shiny scales, and a blunt tail. This species lives mostly underground and occurs with sandy and loose loamy soils or leaf litter. The northern California legless lizard inhabits areas of sparse

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vegetation within chaparral, coastal dunes, and coastal scrub habitats. This species prefers moist, warm soil. The non-native annual grasslands and eucalyptus grove within the BSA contains areas of sandy soil and leaf litter, providing potentially suitable habitat for the northern California legless lizard. In addition, this species is known to occur along Union Valley Parkway in similar habitat types. Based on the habitat requirements, known occurrences in the vicinity of the BSA and suitable habitat found within the BSA, this species has a moderate potential to occur.

Western Spadefoot:

The western spadefoot is almost completely terrestrial, entering water only to breed. Breeding pools that are suitable for breeding are those which do not contain bullfrogs, fish, or crayfish and that pond for at least 30 days for successful completion of larval development. Outside the breeding season, the western spadefoot spends the majority of the time underground to avoid desiccation and prefers open areas with sandy or gravelly soils in a variety of habitats in the vicinity of a suitable breeding pond. The western spadefoot has been documented within the nine-quad search area surrounding the BSA as well as 500 feet from the BSA. This closest occurrence documented by the CNDDDB is described as a seasonal rain-filled depression used for breeding by the species and is located in the southeast corner of the intersection of Union Valley Parkway and Hummel Drive. The BSA does not contain suitable aquatic habitat; however, the upland habitats found within the BSA provide suitable upland habitat for the western spadefoot as they contain sandy soils and suitable vegetation types for western spadefoot occupancy during the non-breeding season in close proximity to a known breeding location. Based on the habitat requirements, known occurrences in the vicinity of the BSA and suitable habitat found within the BSA, this species has a moderate potential to occur.

In addition the special status species discussed above, the grasslands, trees, and shrubs within and adjacent to the BSA have potential to support nesting birds protected by the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGF) Section 3500.

Wildlife Corridors

Regionally, the BSA is not located within an Essential Connectivity Area (ECA) as mapped in the report California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (2010). The project site is within an urban setting, bordered by existing barriers to most regional wildlife movement in the form of existing housing developments along the entire northern and eastern boundaries because of these barriers and edge effects, in combination with the existing disturbances on site, the habitats within the BSA likely do not contribute greatly to regional wildlife movement patterns.

County Environmental Thresholds:

The County Environmental Thresholds (County of Santa Barbara 2021a) include guidelines for the assessment of biological resource impacts. The following thresholds are applicable to this project:

Wetlands:

Projects which result in a net loss of important wetland area or wetland habitat value, either through direct or indirect impacts to wetland vegetation, degradation of water quality, or would threaten the continuity of wetland-dependent animal or plant species are considered to have a potentially significant effect on the environment. Projects which substantially interrupt wildlife access, use and dispersal in wetland areas would typically be considered to have a potentially significant impact. Projects which disrupt the hydrology of wetlands systems would be considered to have a potentially significant impact.

Native Grasslands:

In general, project created impacts to native grasslands may be considered significant if they involve removal of or severe disturbance to a patch or a combined patch area of native grasses that is greater than

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0.25 acre in size. The grassland must contain at least 10 percent relative cover of native grassland species (based on a sample unit). Impacts to patch areas less than 0.25 acre in size that are clearly isolated and not part of a significant native grassland or an integral component of a larger ecosystem are usually considered insignificant.

Other Rare Habitat Types:

The County Environmental Thresholds recognize not all habitat-types found in Santa Barbara County are addressed by the habitat-specific guidelines. Impacts to other habitat types or species may be considered significant, based on substantial evidence in the record, if they substantially: (1) reduce or eliminate species diversity or abundance; (2) reduce or eliminate the quality of nesting areas; (3) limit reproductive capacity through losses of individuals or habitat; (4) fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources; (5) limit or fragment range and movement; or (6) interfere with natural processes, such as fire or flooding, upon which the habitat depends.

Native Trees:

The County considers native specimen trees, regardless of size, to be potentially significant. Rare native trees that are very low in number or isolated in distribution may be particularly significant. The significance evaluation is performed on a case-by-case basis and considers tree size, numbers, location, and relationship to habitat among other factors. Specimen trees are defined as mature trees that are healthy and structurally sound and have grown into the natural stature particular to the species. In general, the County considers the loss of 10 percent or more of the trees of biological value on a project site to be potentially significant.

Impact Discussion:

Flora:

- a. **No impact.** As described under *Existing Setting*, the BSA contains four vegetation communities and land cover types: non-native annual grassland, eucalyptus grove, iceplant mat/landscaped, and road shoulder/disturbed. No native grasslands or other rare or sensitive vegetation communities or habitat types were observed within the BSA during the reconnaissance survey. Therefore, the project would not result in a loss or disturbance to a unique, rare or threatened plant community, and no impact would occur.
- b-d. **Less than significant.** As described under *Existing Setting*, no special status plant species were determined to have a moderate or high potential to occur within the BSA, and only four special status plant species were found to have a low potential to grow on the site: Hoover's bent grass, Douglas' fiddleneck, California spineflower, and large-flowered leptosiphon. However, it was determined very unlikely that these species would occur due to the prevalence of non-native grasses on site and the amount of existing disturbances on and adjacent to the site. Therefore, potential impacts to special status plant species would be less than significant.
- e. **Less than significant with mitigation.** Based on observations made during the biological reconnaissance survey, the only native tree species that occurs within the biological survey area is the coast live oak. Four coast live oak trees are located on the southern boundary of the project site adjacent to Union Valley Parkway. At least one of these trees may be impacted by construction of a proposed driveway that would connect the proposed fire station with Union Valley Parkway, either through direct removal or encroachment into the dripline. Therefore, the project could result in the loss of at least one native tree and this impact would be potentially significant. With implementation of Mitigation Measures Bio-01 and Bio-02 (see below), which require tree protection measures and replacement as needed, the potential impact would be reduced to a less-than-significant level. Therefore, potential impacts to native trees would be less than significant with mitigation.

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- f. **Less than significant.** Operation of the proposed project would likely include the use of herbicides and pesticides as part of landscape maintenance of the project site. However, use of such chemicals would be relatively minor and would follow the requirements and guidelines associated with the products. The project would not introduce animal life, human habitation beyond the few fire station staff, non-native plants, or other factors that would change or hamper existing habitat. Therefore, impacts would be less than significant.

Fauna

- g-i. **Less than significant with mitigation.** As described under *Existing Setting*, six special status wildlife species have a low potential to occur on the BSA: monarch - California overwintering population, coast horned lizard, burrowing owl, Swainson's hawk, American peregrine falcon, and American badger. Because of the marginally suitable habitat or lack of certain habitat features, these species are not likely to occur within the BSA. Two species were determined to have moderate potential to occur on site: northern California legless lizard and western spadefoot.

Suitable habitat for the northern California legless lizard occurs within sandy soils and iceplant mats of the proposed development footprint as well as the eucalyptus grove leaf litter within the BSA. Direct impacts to these species could occur during ground disturbance in the form of harassment and/or injury, if present.

Suitable upland habitat for the western spadefoot can be found throughout the BSA. Much of the impact area within the BSA does occur within suitable upland habitat for the western spadefoot. Potential impacts, if present in upland areas, could occur during ground disturbance in the form of harassment and/or injury, especially since western spadefoot are known to burrow underground. No impacts to aquatic breeding habitat would occur from the proposed project.

Several bird species protected by the CFGC and the MBTA may nest in grasslands, trees, and shrubs within or adjacent to the BSA. Development of the project may result in direct or indirect impacts to nesting bird species, should they be present within and/or in the immediate vicinity of areas of disturbance at the time of construction. Impacts to nesting birds could occur if nests with eggs or young are present within the proposed disturbance area during project implementation that may cause direct impact to the nest, and/or failure or abandonment of the nest.

Impacts to special status animal species are potentially significant but would be reduced to a less-than-significant level with implementation of Mitigation Measures Bio-03 and Bio-04 (see below).

- j. **Less than significant.** The project site is bordered by existing barriers to most regional wildlife movement in the form of existing housing developments along the entire northern and eastern boundaries. In addition, the project site is located largely in an urban setting, is disturbed and construction of the fire station would encompass a relatively small area and not include development of the entire parcel. Designated open space areas would maintain connectivity with adjacent parcels. Therefore, impacts to wildlife movement would be less than significant.
- k. **Less than significant.** The proposed project would permanently introduce a fire station and pave over a small portion of existing disturbed land that may provide marginal habitat for wildlife species, thereby precluding any future functional habitat value for these species. In addition, the project would include fire engines ingressing and egressing the site and emergency sirens which would increase noise in this area. However, as discussed in Section 4.11, *Noise*, ambient noise levels in the study area are generated by vehicular traffic on Union Valley Parkway and secondary noise provided by overflight noise as Union Valley Parkway runs adjacent to the Santa Maria Airport and the project would not substantially alter noise levels on the project site. In addition, new lighting associated to the project would be shielded and directed downward so as not to hinder the normal activities of wildlife. Therefore, impacts would be less than significant.

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Cumulative Impacts:

With implementation of mitigation measures, the proposed project would result in less-than-significant impacts to biological resources. Buildout of the Orcutt area would continue to urbanize this area and could result in additional impacts to biological resources. The Orcutt Community Plan EIR (County of Santa Barbara 1994b) identified potentially significant cumulative impacts to biological resources, including wetlands, riparian, central dune scrub, oak woodlands, central coast scrub, and sandhill chaparral communities resulting from Orcutt Community Plan buildout. The potential biological resources impacts of each project would be addressed on a case-by-case basis as individual projects are reviewed by County decision-makers. Implementation of County policies and development standards related to biological resources such as Orcutt Community Plan Policies BIO-O-1 through BIO-O-5 would minimize these potential cumulative impacts. Although cumulative biological resources impacts would be potentially significant, the proposed project's contribution to such impacts would not be cumulatively considerable and would therefore be less than significant after mitigation.

Mitigation and Residual Impact:

The proposed project could result in potentially significant impacts to biological resources. With implementation of Mitigation Measures Bio-01 through Bio-04, potential impacts would be reduced to a less-than-significant level:

MM Bio-01 Tree Avoidance and Tree Protection Plan

If feasible, the County shall modify the proposed project to either incorporate (to implement OCP Policy BIO-O-3 and OCP EIR BIO-26) and/or avoid oak trees. A County-approved biologist and/or arborist shall prepare a Tree Protection Plan (TPP) to ensure avoidance of impacts to protected trees that are not planned for removal. The TPP shall include the following components:

- a. Prior to the onset of any construction activities, high visibility orange construction fencing shall be installed around existing stands and individuals that are to be retained at a buffer/extent radius of six feet beyond the canopy dripline, wherever the topography allows for such fencing or otherwise marked in the field to protect them from harm during grading and construction.
- b. No construction equipment shall be parked, stored, or operated within 25 feet of any protected tree dripline.
- c. No fill soil, rocks, or construction materials shall be stored or placed within 25 feet of the dripline of a protected tree.
- d. No artificial surface, pervious or impervious, shall be placed within 25 feet of the dripline of any protected tree, except for County-approved project access roads.
- e. Any roots encountered that are one inch in diameter or greater shall be cleanly cut. This shall be done under the direction of a County-approved arborist/biologist.
- f. Any construction activity required within three feet of a protected tree's dripline shall be done with hand tools.
- g. No permanent irrigation shall occur within the dripline of any existing protected tree.
- h. Only designated trees shall be removed. All grading and construction plans shall clearly delineate those trees to be removed and those to remain.

If avoidance of oak trees is not feasible, the County shall also implement Mitigation Measure Bio-02 below.

Plan Requirements and Timing. The County-approved biologist and/or arborist shall submit the TPP to the County. The County shall include as notes or depictions all plan components listed above, graphically

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depicting all those related to earth movement, construction, and temporarily and/or permanently installed protection measures that are indicated in the TPP. The construction contractor shall install the tree protection measures indicated in the TPP and project plans prior to the initiation of on-site project activities.

Monitoring. The County shall demonstrate that trees identified for protection were not damaged or removed or, if damage or removal occurred, that replacement is completed as required by the TPP prior to final building inspection clearance.

MM Bio-02 Tree Replacement Plan (Also Implements OCP EIR BIO-26)

If any protected oak tree will be removed, a Tree Replacement Plan shall be prepared by a certified arborist or landscape architect. The tree replacement plan shall be designed to replace native trees removed by the proposed project at a ratio of 10:1 (trees planted: trees impacted) for protected oak trees. Upon final design, the County or County-approved biologist and/or arborist shall determine the final impacts to protected trees and the subsequent number of replacement plantings needed for restoration for the project. Replacement trees shall be installed on-site. Monitoring of planted trees shall be for a minimum of seven years or until stasis has been determined by a certified arborist. The plan shall include the following components at a minimum:

- a. Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type);
- b. Goal(s) of the compensatory mitigation project;
- c. Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values);
- d. Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan [including species to be used and container sizes]);
- e. Maintenance activities during the monitoring period, including weed removal and irrigation as appropriate (activities, responsible parties, schedule);
- f. Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports);
- g. Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80 percent survival of container plants;
- h. An adaptive management program and remedial measures to address any shortcomings in meeting success criteria;
- i. Notification of completion of compensatory mitigation; and
- j. Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism).

Plan Requirements and Timing. The County-approved biologist and/or arborist shall submit the Tree Replacement Plan to the County. Plan components shall be included on grading and landscaping plans.

Monitoring. The County shall demonstrate that all required components of the approved Tree Replacement Plan are in place as required prior to final inspection clearance and maintained throughout maintenance period.

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MM Bio-03 Northern California Legless Lizard and Western Spadefoot Pre-construction Survey and Relocation

At a minimum of two weeks prior to initiation of ground disturbing activities and vegetation removal, a County-approved biologist shall survey the limits of grading for northern California legless lizards and western spadefoot. Surveys for legless lizards shall include raking of leaf litter and sand under shrub and trees in suitable habitat within the disturbance footprint to a minimum depth of eight inches. If northern California legless lizards and/or western spadefoots are found and would be impacted by the project the County-approved biologist shall capture and relocate the species to designated open space areas on site or at County-approved off-site locations. Captured animals shall be placed into containers with sand or other moist substrates and released in the designated areas within three hours. In addition to preconstruction surveys, the biologist shall be on-site during initial grading activities to relocate any northern California legless lizards and/or western spadefoots that are unearthed during excavation. If in good health, they shall be immediately relocated to the designated relocation area. If injured, the animals shall be turned over to a CDFW-approved specialist until they are in a condition suitable for release into the designated release area or deposited at an approved vertebrate museum.

Plan Requirements and Timing. Prior to ground-disturbing activities, the name, qualifications, scope, and contact information for the surveying biologist must be submitted to the County for approval in advance of the surveys. Proposed relocation areas shall be identified and approved by the County prior to beginning the work. A report of the results of the pre-construction survey and any required capture and relocation efforts shall be submitted to the County for review prior to initiation of ground-disturbing activities. Weekly monitoring reports shall be submitted to the County by the County-approved biologist during initial ground disturbing activities. Biological monitoring requirements are to be implemented during construction. This measure shall be printed on all grading and construction plans.

Monitoring. The County and/or County-approved biologist shall monitor compliance with the above avoidance and minimization measures.

MM Bio-04 Nesting Bird Surveys

If feasible, removal of vegetation within suitable nesting bird habitats will be scheduled to occur in the fall and winter (between September 1 and February 14), after fledging and before the initiation of the nesting season. For vegetation removal activities occurring during the nesting season (generally February 15 to August 31), surveys for nesting birds covered by the CFGC and the MBTA shall be conducted by a qualified biologist no more than 14 days prior to vegetation removal. The surveys shall include the disturbance area plus a 300-foot buffer around the site, or to the topographic divide where substantial topography is present in the buffer. If active nests are located, all construction work shall be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer shall be a minimum of 50 feet for non-raptor bird species and at least 300 feet for raptor species. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed, and young have fledged the nest prior to removal of the buffer. If buffer zones are determined to be infeasible, a full-time qualified biological monitor must be onsite to monitoring construction within the buffer zones to ensure active nests and nesting birds are not impacted.

Plan Requirements and Timing. The surveys shall be conducted no more than 14 days prior to the initiation of vegetation and/or tree removal activities. A report of the nesting bird survey results shall be submitted to the County for review and approval prior to construction activities which involve tree or vegetation removal. These measures are to be implemented during grading and construction activities.

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Monitoring. The County and/or County-approved biologist shall monitor compliance with the above avoidance and minimization measures. Active nests shall be monitored periodically by the County-approved biologist until it has been determined that the nest is no longer being used by either the young or adults.

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4.5 CULTURAL RESOURCES

Will the proposal:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Cause a substantial adverse change in the significance of any object, building, structure, area, place, record, or manuscript that qualifies as a historical resource as defined in CEQA Section 15064.5?				✓	
b. Cause a substantial adverse change in the significance of a prehistoric or historic archaeological resource pursuant to CEQA Section 15064.5?			✓		
c. Disturb any human remains, including those located outside of formal cemeteries?				✓	
d. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in the Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: 1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				✓	

The following impact discussion is based, in part, on a cultural resources technical study prepared by Rincon (2021b), which is included as Attachment C.

Existing Setting:

Archaeological and Historical Resources

For at least the past 10,000 years, the area that is now Santa Barbara County has been inhabited by Chumash Indians and their ancestors. On July 21, 2021, Rincon received the results of a records search of the California Historical Resources Information System, which was conducted by the staff at the Central

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Coast Information Center (CCIC) located at University of California, Santa Barbara. The search was conducted to identify previously recorded cultural resources (prehistoric or historic), as well as previously conducted cultural resources work within a 0.5-mile radius of the project site. The cultural resources records search identified a total of 15 previous studies within the 0.5-mile search radius, three of which (SR-04603, SR-04604, and SR-04605) included portions of the project site. The cultural resources study identified no cultural resources within the 0.5-mile search radius, and no cultural resources located within the project site.

Tribal Cultural Resources

As part of the process of identifying Native American cultural resources within or near the project site, Rincon contacted the Native American Heritage Commission (NAHC) on July 14, 2021 and to request a review of the Sacred Lands File. The NAHC emailed a response on August 2, 2021 and stated the results of the search was negative. The NAHC provided a contact list of nine Native American individuals or tribal organizations that may have knowledge of cultural resources in or near the project site. The County conducted Native American consultation consistent with AB 52 for the project to identify potential concerns or issues associated with Native American cultural resources near the project.

As required by Public Resources Code (CEQA) Section 21080.3.1 (AB 52), the County sent a total of nine (9) consultation letters to California Native American tribes affiliated with the geographic area of the project site: six (6) were emailed on August 12, 2021 and three (3) were sent by U.S. Post Office certified mail on August 13, 2021. Follow-up phone calls were made to all non-responsive recipients on August 19, 2021, and again on September 1, 2021. Of the nine recipients, only the Santa Ynez Band of Chumash Indians informed the County that it would consider the project. On September 27, 2021, the County received written notice from the Santa Ynez Band of Chumash Indians that it did not wish to consult further. Therefore, tribal consultation under AB 52 has concluded for the project.

Pedestrian Survey

Rincon Consultants, Inc. conducted a pedestrian survey of the project site and the area between the project site and Union Valley Parkway on July 28, 2021. Overall ground visibility was considered excellent with approximately 80 to 100 percent exposure. The on-site soil is well-sorted and contained naturally occurring, non-cultural shells consisting of red abalone (*Haliotis rufescens*) and scallop (*Crassadoma* sp.). There was modern trash located throughout the project site consisting of household goods and plastics. One unmodified Pismo clam shell fragment was observed within the study area during the survey. The field survey did not identify any cultural resources in the project site (Rincon 2021b).

County Environmental Thresholds:

Chapter 8 of the County Environmental Thresholds (2021a) contain guidelines for the identification, significance evaluation, and mitigation of impacts to cultural resources, including archaeological, historic, and tribal cultural resources. In accordance with the requirements of CEQA, these guidelines specify that if a resource cannot be avoided, it must be evaluated for importance using the criteria in CEQA Guidelines 15064.5(a)(3)A-D. Generally, a lead agency must consider a cultural resource to be “historically significant” if the resource meets the significance criteria for listing in the California Register of Historical Resources. CEQA considers cultural resources that meet these criteria “historical resources.”

CEQA Guidelines Section 15064.5(b) states that “...a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” As defined in CEQA Guidelines Section 15064.5(b), substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of

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the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.

Impact Discussion:

- a. **No impact.** As discussed above, the CCIC records search did not identify any previously recorded historical resources within the cultural study area. Therefore, the proposed project would not require physical demolition, destruction, relocation, or alteration of historical resources. Therefore, the proposed project would result in no impact to historical resources.
- b. **Less than significant.** As discussed under *Existing Setting*, no archaeological resources were previously recorded within the cultural study area. Nonetheless, it is possible that previously-identified archaeological resources may be encountered during ground-disturbing activities associated with construction of the proposed project (e.g., grading or any other activity that disturbs the surface of the ground). Construction activities may result in the destruction, damage, or loss of undiscovered scientifically-important archaeological resources. However, as part of the County's conditions of approval for the proposed project, the County would require the construction contractor to implement the County's Standard Condition CulRes-09, Stop Work at Encounter, which would require construction workers to stop or redirect work immediately in the event archaeological resources are encountered during grading, construction, or other construction-related activity. The contractor would immediately contact the County and retain a County-qualified archaeologist and Native American representative to evaluate the significance of the find in compliance with the County's Standard Conditions CulRes-01, -05, -07, -08, -09, and/or -10 of the County Archaeological Guidelines, as necessary. Specifically, the construction contractor would immediately contact the County and retain a County-qualified archaeologist and Native American representative to evaluate the significance of the find in compliance with the County Archaeological Guidelines. If the discovery proves to be significant under CEQA and avoidance of impacts to the resource is not feasible, the resource shall be subject to a Phase 3 mitigation program consistent with the County Archaeological Guidelines. The mitigation program may include, but shall not be limited to, data recovery and curation of non-burial related artifacts within a qualified institution within Santa Barbara County (such as the University of California, Santa Barbara's Department of Anthropology). With implementation of the County's Standard Conditions typical for a construction project, impacts would be less than significant.
- c. **No impact.** No evidence of human remains has been encountered within the cultural study area, and no cultural resources have been identified within the cultural study area. Should human remains be discovered during project construction, the construction contractor would be required to comply with State Health and Safety Code Section 7050.5, which requires no further disturbance occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. Therefore, no impact to human remains would occur.
- d. **No impact.** Native American consultation efforts were completed by the County pursuant to the requirements AB 52. These efforts did not identify specific tribal cultural resources within the cultural study area, and the Native American Heritage Commission indicated that there are no known sacred lands in the project vicinity. Therefore, no impact to tribal cultural resources would occur.

Cumulative Impacts:

With implementation of the County's Standard Conditions typical for a construction project, the project would result in less-than-significant impacts to cultural resources. Cumulative development in the

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community of Orcutt includes new residential units and commercial space, all of which are currently proposed, in process, approved, and/or under construction. Buildout of the Orcutt area would continue to urbanize this area and could result in impacts to cultural resources, including previously-unidentified archaeological resources. The Orcutt Community Plan EIR (County of Santa Barbara 1997a) identified potentially significant impacts to historic resources resulting from Orcutt Community Plan buildout due to construction of structures, roadways, utility lines, and parks on historic sites. The Orcutt Community Plan EIR also identified potentially significant impacts to archaeological resources resulting from Orcutt Community Plan buildout due to destruction of pre-historic resources resulting from surface and subsurface grading, as well as increased incidents of pilferage and vandalism. The potential cultural resources impacts of each project would be addressed on a case-by-case basis as individual projects are reviewed by County decision-makers. Implementation of County policies and development standards related to cultural resources such as Orcutt Community Plan Policies OT-O-1, HA-O-1, and HA-O-2 and Comprehensive Plan Land Use Element Historical and Archaeological Sites Policies 1 through 5 would minimize these potential cumulative impacts. Therefore, cumulative cultural resources impacts would be potentially significant, but the project's contribution to such impacts would not be considerable and would therefore be less than significant.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required.

4.6 ENERGY

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Substantial increase in demand, especially during peak periods, upon existing sources of energy?				✓	
b. Requirement for the development or extension of new sources of energy?				✓	

Existing Setting:

PG&E and Southern California Gas provide electric and natural gas services, respectively, to Orcutt. The project site is located in the North County Lighting District, and currently, several streetlights are located within the County rights-of-way along Union Valley Parkway and Brookside Avenue. Motor vehicle fuels such as gasoline and diesel are consumed by vehicles traveling along local roadways, including Union Valley Parkway and Brookside Avenue.

County Environmental Thresholds:

The County Environmental Thresholds (2021a) do not contain significance thresholds for energy impacts. Therefore, this analysis is based on the two questions in the table above, as well as the following checklist questions from Appendix G of the CEQA Guidelines:

1. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
2. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact Discussion:

- a, b. **No impact.** The following subsections discuss energy consumption by project construction and operation.

Short-term Construction Energy Demand

Project construction would require energy resources primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary grid power may also be provided to construction trailers or electric construction equipment. CalEEMod version 2020.4.0 was used to estimate energy demand based on project data, locally appropriate industry-standard assumptions, and CalEEMod default values for projects in Santa Barbara County when project specifics were not known (see Section 4.3a, *Air Quality*, for modeling assumptions). Table 10 summarizes the anticipated energy consumption from construction equipment and vehicles, including construction worker trips to and from the project site. As shown therein, construction of the project would require approximately 835 gallons of gasoline and 43,106 gallons of diesel fuel. Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. Furthermore, in the interest of cost efficiency, construction contractors would not utilize fuel in a manner that is wasteful or unnecessary. Table 10 summarizes the anticipated energy consumption from operational uses and as shown therein, energy use during operation of the proposed fire station would require approximately 1,776 gallons of gasoline and 294 gallons of diesel fuel. Therefore, project construction would not result in potentially significant environmental effects due to the wasteful,

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inefficient, or unnecessary consumption of energy. In addition, due to its temporary and short-term nature, project construction would not result in a substantial increase in demand upon existing sources of energy or require the development or extension of new sources of energy. As such, no impact would occur.

Long-term Operational Energy Demand

Upon completion, the project would result in direct consumption of energy. Table 11 summarizes the anticipated energy consumption from operational uses and as shown therein, energy use during operation of the proposed project would require approximately 1,776 gallons of gasoline and 294 gallons of diesel fuel. As shown in Table 12, electricity and natural gas consumption during operation of the project would require approximately 147,662 kilowatt-hour per year (kWh/yr) of electricity and 139,320 metric million British thermal units per year (MMBTU/yr) of natural gas. As a result, the proposed project would not result in a substantial increase in energy demand or require the development or extension of new sources of energy. Therefore, project operation would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy and the project would not conflict with any state or local plans for renewable energy and energy efficiency, such as the County's ECAP (2015a).

Table 10 Anticipated Proposed Project Construction Energy Use

Source	Fuel Consumption (Gallons)	
	Gasoline	Diesel
Construction Equipment and Hauling Trips	–	43,106
Construction Worker Vehicle Trips	835	–
See Attachment A for CalEEMod default values for fleet mix and average distance of travel, and Attachment C for energy calculation sheets.		

Table 11 Anticipated Proposed Project Operational Energy Use

Source: Transportation Fuels	Fuel Consumption	
	Gallons	MMBtu
Gasoline	1,776	195
Diesel	294	37
See Attachment A for CalEEMod default values for fleet mix and average distance of travel, and Attachment D for energy calculation sheets.		

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Table 12 Electricity and Natural Gas Consumption

Energy Type	County	Provider (SoCal Edison/SoCal Gas)	California	Project Demand	Proportion of Provider Consumption	Proportion of Statewide Consumption
Electricity (GWh/yr)	Santa Barbara	80,913	279,402	0.148	0.0002%	0.0001%
Natural Gas (MMBtu/yr)	Santa Barbara	504,383,950	1,223,351,892	139,320	0.03%	0.01%
Source: California Energy Commission 2021 GWh/yr = gigawatt-hour per year; MMBtu/yr = metric million British thermal unit per year						

Cumulative Impacts:

Because the proposed project would have no impacts on energy resources, the proposed project combined with cumulative development would not contribute to cumulative impacts on the regional demand for energy.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required.

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4.7 FIRE PROTECTION

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Introduction of development into an existing high fire hazard area or exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				✓	
b. Project-caused high fire hazard?				✓	
c. Introduction of development into an area without adequate water pressure, fire hydrants or adequate access for firefighting?				✓	
d. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?					
e. Introduction of development that will substantially impair an adopted emergency response plan, emergency evacuation plan, or fire prevention techniques such as controlled burns or backfiring in high fire hazard areas?				✓	
f. Development of structures beyond safe Fire Dept. response time?				✓	

Existing Setting:

The California Department of Forestry and Fire Protection (CAL FIRE) does not identify the project site or vicinity as being located in a Very High Fire Hazard Severity Zone (CAL FIRE 2008). The closest fire station is the Santa Barbara County Fire Station #21, located at 335 Union Avenue, approximately 2.5 miles southwest of the project site.

Predictions about the long-term effects of climate change in California include increased incidence of wildfires and a longer fire season due to drier conditions and warmer temperatures. Any increase in the number or severity of wildfires has the potential to impact resources to fight fires when they occur, particularly when the state experiences several wildfires simultaneously. Such circumstances place greater risk on development in high fire hazard areas.

Impact Discussion:

a-f. **No impact.** The proposed project includes construction of an approximately 8,600-s.f. fire station. Therefore, the proposed project would not increase the exposure of the public to increased fire hazard. County Fire Stations #21 and 26 currently serve the Orcutt and Santa Maria Valley area, but currently do not meet the five-minute response time standard for all areas. The proposed project would improve fire department response times in the local area by constructing a fire station in close proximity to existing development, which would improve fire protection capacity as compared to baseline conditions. In addition, the proposed project would not require or hamper fire prevention activity or infrastructure; conversely, the proposed project would ultimately result in

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the improved provision of fire protection services to the Orcutt and Santa Maria Valley area west of U.S. 101. No impact would occur.

Cumulative Impacts:

Implementation of the proposed project is not anticipated to result in a substantial change to the project site that would affect the level of fire hazards. In addition, the proposed project would ultimately result in the provision of improved fire protection services within the vicinity of the project site. Thus, the project would not contribute to cumulative impacts to fire protection.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required.

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4.8 GEOLOGIC PROCESSES

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Exposure to or production of unstable earth conditions such as landslides, earthquakes, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar hazards?			✓		
b. Disruption, displacement, compaction or overcovering of the soil by cuts, fills or extensive grading?			✓		
c. Exposure to or production of permanent changes in topography, such as bluff retreat or sea level rise?				✓	
d. The destruction, covering or modification of any unique geologic, paleontologic or physical features?		✓			
e. Any increase in wind or water erosion of soils, either on or off the site?			✓		
f. Changes in deposition or erosion of beach sands or dunes, or changes in siltation, deposition or erosion which may modify the channel of a river, or stream, or the bed of the ocean, or any bay, inlet or lake?				✓	
g. The placement of septic disposal systems in impermeable soils with severe constraints to disposal of liquid effluent?				✓	
h. Extraction of mineral or ore?				✓	
i. Excessive grading on slopes of over 20%?			✓		
j. Sand or gravel removal or loss of topsoil?			✓		
k. Vibrations, from short-term construction or long-term operation, which may affect adjoining areas?			✓		
l. Excessive spoils, tailings or over-burden?			✓		

Existing Setting:

The project site is situated within the Santa Maria Basin, north of the Santa Ynez Mountains, and north-northwest of the Santa Ynez River Valley in the southern Coast Ranges, one of 11 major geomorphic provinces in California (California Geological Survey 2002). The Coast Ranges extend 600 miles from the Oregon border to the Santa Ynez and Big Pine faults in Santa Barbara County. The Coast Ranges are characterized by north-south trending peaks and valleys that range in elevation from 500 feet above mean sea level (amsl) to 7,581 feet amsl at the highest summit (Norris and Webb 1990). The basement rocks of the southern Coast Ranges include the Jurassic to Cretaceous metasedimentary and metavolcanic rocks of the Franciscan Assemblage and Knoxville Formation. During the Cenozoic, the area of the present-day Coast Ranges was covered by seawater and a thick deposit of marine to nonmarine shale, sandstone, and conglomerate accumulated on the Franciscan basement rock (Norris and Webb 1990). Later, during the late Miocene to Pliocene, a mountain-building episode occurred in the vicinity of the present-day Coast Ranges, resulting in their uplift above sea level. During that time, the Santa Maria Basin formed due to

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the interaction of tectonic plates along the west coast, and a thick sequence of predominantly Miocene to Pliocene sediments accumulated unconformably over the Cretaceous bedrock. Subsequently, from the late Pliocene to Pleistocene, extensive deposits of terrestrial alluvial fan and fluvial sediments were deposited in the Coast Ranges (Dibblee and Ehrenspeck 1989; Norris and Webb 1990; Tennyson 1992).

According to the geologic mapping by Dibblee and Ehrenspeck (1989) and Tennyson (1992), the project site is immediately underlain by Quaternary young (Holocene) dune sand deposits (Qd, Qos). Formed by the prevailing northwesterly winds, these Quaternary sand deposits were deposited during the Holocene to latest Pleistocene epochs and are comprised of weakly consolidated, well-sorted fine sand. According to Woodring and Bramlette (1950), three age sets of dunes (old, intermediate, and modern) are present within the Santa Maria Basin, creating generally parallel belts succeeding one another inland in order of increasing age. The modern dune deposits are considered active and are bare or have sparse, scattered vegetation. The intermediate dunes are moderately anchored by vegetation and are perfectly preserved. Overlapped by the intermediate and modern dunes, the old dunes are anchored by vegetation and are mostly poorly preserved. These older dune deposits are the most extensive of the three groups because they also consist of deposits derived from Orcutt Sand.

Quaternary old (Pleistocene) Orcutt Sand deposits are not mapped at the surface of the project site but they may be present at moderate or unknown depths beneath Quaternary young (Holocene) dune deposits (Qd, Qos). Quaternary old (Pleistocene) Orcutt Sand deposits are composed of poorly sorted marine terrace sand and gravel with deposits of tan to brown eolian wind-blown sand, silty clay, and marl.

Paleontological Sensitivity

The paleontological sensitivity of the geologic units that underlie the project site was evaluated using the results of a paleontological locality search and review of existing information in the scientific literature concerning known fossils within those geologic units. Rincon examined fossil collections records from the Paleobiology Database and University of California Museum of Paleontology (UCMP) online database, which contains known fossil localities in Santa Barbara County.

Following the literature review, a paleontological sensitivity classification was assigned to the geologic units within the project site. The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units. The Society of Vertebrate Paleontology (SVP; 2010) developed a system for assessing paleontological sensitivity and classifies sedimentary rock units as having high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources. This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present.

Quaternary young (Holocene) dune sand deposits (Qd, Qos) mapped at the surface of the project site have been assigned a low paleontological sensitivity because Holocene sedimentary deposits, particularly those younger than 5,000 years old, are generally too young to contain fossilized material. In addition, no fossils have been reported from Holocene dune sand deposits (Paleobiology Database 2021; Woodring and Bramlette 1950; UCMP 2021). However, the Quaternary young (Holocene) dune sand deposits may grade downward into Quaternary old (Pleistocene) Orcutt Sand deposits (Qo) at moderate or unknown depths within the project site.

Accurately assessing the boundaries between younger and older units within the project site is generally not possible without site-specific stratigraphic data, some form of radiometric dating, or fossil analysis, so conservative estimates of the depth at which paleontologically sensitive units may occur reduces potential for impacts to paleontological resources. Based on the project site's proximity to exposures of Quaternary old (Pleistocene) Orcutt Sand and alluvial deposits of Pleistocene-age (i.e., Qoa) and existing site conditions, Rincon estimates the transition between younger and older units in the project area likely to occur at depths exceeding 10 feet below ground surface.

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As the oldest and most extensive terrace deposits in the vicinity, Quaternary old (Pleistocene) Orcutt Sand has yielded several invertebrate fossil specimens near the project site, including specimens of freshwater mollusk and ostracod. Quaternary old (Pleistocene) Orcutt Sand has also produced an incomplete femur of a camelid (*Camelops*) and a tapir tooth that was collected along Corralitos Canyon, approximately nine miles northwest of the project site (Woodring and Bramlette 1950). Therefore, Quaternary old (Pleistocene) Orcutt Sand deposits are assigned a high paleontological sensitivity, in accordance with SVP guidelines (2010). Therefore, the paleontological sensitivity of Quaternary dune sand deposits within the project area is determined to be low to high, increasing below depths of 10 feet.

County Environmental Thresholds:

Pursuant to the County Environmental Thresholds (2021a), impacts related to geological resources may have the potential to be significant if the project involves any of the following characteristics:

1. The project site is located on land having substantial geologic constraints, as determined by the Planning and Development Department or the Public Works Department. Areas constrained by geology include parcels located near active or potentially active faults and property underlain by rock types associated with compressible/collapsible soils or susceptible to landslides or severe erosion. “Special Problems” areas designated by the Board of Supervisors have been established based on geologic constraints, flood hazards and other physical limitations to development.
2. The project results in potentially hazardous geologic conditions such as the construction of cut slopes exceeding a grade of 1.5 horizontal to 1 vertical.
3. The project proposes construction of a cut slope over 15 feet in height as measured from the lowest finished grade.
4. The project is located on slopes exceeding 20 percent grade.

Impact Discussion:

- a. **Less than significant.** No major faults traverse the project site, and no Alquist-Priolo fault zones exist on or near the site (DOC 2021a). The project site also has low potential to experience high groundwater levels and compressible and/or collapsible soils (County of Santa Barbara 1979a and 1979b, respectively). Therefore, the risk of ground surface rupture and related hazards on the site is low. Nonetheless, the site is in a seismically active region and is subject to shaking from both local and distant earthquakes.

The proposed project would involve construction and operation of a fire station at the western terminus of Brookside Avenue, adjacent to Union Valley Parkway. The project site is located within an area rated as “low to moderate” on the geological problems index. The project site also has low potential to experience liquefaction, soil creep, slope instability/landslides, and expansive soils and moderate potential to experience seismic tectonic activity, high groundwater levels, and compressible and/or collapsible soils (County of Santa Barbara 2015c). Therefore, although the proposed project may be exposed to fault rupture, the proposed fire station would not increase the potential for fault rupture and related hazards, such as landslides, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar hazards, to occur. In addition, the proposed project would be constructed in accordance with mandatory federal, state, and local laws, policies, regulations, and engineering/construction codes that guide the design of buildings, such as the California Building Standards Code. Therefore, impacts related to unstable earth conditions under the proposed project would be less than significant.

- b. **Less than significant.** The proposed project involve the construction and operation of a fire station. The proposed project would include balanced grading on site with a maximum depth of soil cut of 10 feet. Although it may cause disruption, displacement, compaction, or overcovering of existing soils on the

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site by cuts, fills, or grading, such earthwork would not be extensive, and any impacts from such construction activities would not be significant. In addition, the proposed project would be constructed in accordance with mandatory federal, state, and local laws, policies, regulations, and engineering/construction codes that guide the design of buildings, such as the California Building Standards Code. Therefore, impacts related to the proposed project would be less than significant.

- c. **No impact.** The site is located approximately 12 miles inland from the Pacific Ocean, and implementation of the proposed project would not increase public exposure to bluff retreat or sea level rise. There would be some localized changes in topography associated with the grading required for the project; however, no substantial changes to topography would occur. Therefore, no impact would occur.
- d. **Less than significant with mitigation.** As previously stated, surface geology within the project site consists of Quaternary young (Holocene) dune sand deposits (Qd, Qos) deposits. Such geologic deposits are not considered unique or likely to contain paleontological resources. In addition, the project area does not contain physical features, such as rock outcroppings, that are considered unique.

As discussed under *Existing Setting*, Quaternary young (Holocene) dune sand deposits mapped at the surface of the project site have been assigned a low paleontological sensitivity, in accordance with SVP guidelines (2010). However, Quaternary young (Holocene) dune sand deposits may grade downward into fossil-bearing sediments of Quaternary old (Pleistocene) Orcutt Sand (Qo), which are considered to have a high paleontological sensitivity, at depths exceeding 10 feet below ground surface. Project ground disturbance associated with the proposed fire station would not be expected to extend below depths of 10 feet. Given the nature of the proposed improvements and existing site conditions, project-related ground disturbance (i.e., excavations) is unlikely to impact fossiliferous deposits. Although project implementation is not expected to uncover paleontological resources, a possibility for such resources to be uncovered exists, and therefore, potentially significant impacts could occur related to unknown paleontological resources. Implementation of Mitigation Measure Geo-01 (see below) would reduce potentially significant impacts to paleontological resources to a less-than-significant level.

- e. **Less than significant.** The majority of the project site is currently undeveloped land covered primarily with low-lying vegetation (e.g., shrubs and grasses) and a eucalyptus grove in the northwestern portion of the site. The project would include grading of 30 percent slopes for the two proposed driveways along Union Valley Parkway; however, such grading would not be considered substantial hillside grading given the relatively small area. Potential erosion associated with stormwater flows during construction of the proposed project would be adequately addressed by the County's standard erosion control and drainage requirements (see Section 4.15, *Water Resources/Flooding*). In addition, the proposed project would be constructed in accordance with mandatory federal, state, and local laws, policies, regulations, and engineering/construction codes that guide the design of buildings, such as the California Building Standards Code, to ensure no significant impacts to water quality due to potential soil erosion during construction or operation of the project. Such measures would include compliance of on-site construction activities with the National Pollutant Discharge Elimination System (NPDES) California State Construction General Permit (Order No. 2009-2009-DWQ, as amended) because project construction would disturb more than one acre of land. Compliance with the NPDES California State Construction General Permit would require the creation and implementation of a project-specific SWPPP, which would include best management practices (BMPs) to prevent stormwater pollution and would address erosion and sediment discharge during construction. Inspections would be conducted on the project site once every seven calendar days, or once every 14 calendar days and within 24 hours of a 0.25-inch storm event. Furthermore, the project site is within the County's NPDES Municipal General Permit area and is subject to the Central Coast Regional Water Quality Control Board's (RWQCB) post construction requirements (County of Santa Barbara 2019). With regulatory compliance, potential impacts associated with construction of the proposed project to water quality would be less than significant.

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- f. **No impact.** The site is located approximately 12 miles inland from the Pacific Ocean and there are no nearby surface water bodies. As a result, the proposed project would not result in deposition or erosion of beach sands or dunes or changes in siltation, deposition, or erosion that may modify surface water bodies. No impact would occur.
- g. **No impact.** The proposed project would not include septic disposal systems. No impact would occur.
- h. **No impact.** The proposed project would not include the extraction of mineral or ore. No such activities currently occur on the site. No impact would occur.
- i. **Less than significant.** The project site does not contain slopes exceeding 20 percent that could potentially be impacted by the proposed project. However, the slope between the project site and Union Valley Parkway exceeds 20 percent. The proposed project would include grading of 30 percent slopes for the two driveways along Union Valley Parkway; however, such grading would not be considered substantial hillside grading given the relatively small area. Therefore, the proposed project would not include excessive grading on slopes of over 20 percent. Impacts would be less than significant.
- j. **Less than significant.** The proposed project would not involve sand or gravel removal. Potential soil erosion associated with stormwater flows during the future construction of the proposed project would be adequately addressed by the County's standard erosion control and drainage requirements (see Section 4.15, *Water Resources/Flooding*). In addition, the proposed project would be constructed in accordance with mandatory federal, state, and local laws, policies, regulations, and engineering/construction codes that guide the design of buildings, such as the California Building Standards Code, to ensure no significant impacts to water quality due to soil erosion during construction and operation of the project. Such measures would include implementation of a project-specific SWPPP and water quality management plan. Nonetheless, construction of the proposed project would result in the loss of topsoil on the project site. Due to the relatively small area to be affected, this impact would be less than significant. Once operational, the fire station would not involve activities that would result in the loss of topsoil. This impact would be less than significant.
- k. **Less than significant.** Construction of the proposed project would involve operating heavy, earth moving equipment during construction that would create vibration. According to Caltrans, residential structures can allow vibration levels anywhere from 0.2 to 0.5 inch and distinctively perceptible vibration by humans is 0.24 inch per second (Caltrans 2004). The County of Santa Barbara utilizes a vibration threshold of 0.2 inch per second for assessing the damage to residential structures (County of Santa Barbara 2021a). Construction of the proposed project would involve heavy equipment during construction that would create vibration, such as the vibratory roller that would likely be used for paving. Residential uses exist in the vicinity of the study area, which are vibration-sensitive receivers (County of Santa Barbara 2021a). The greatest anticipated source of vibration during general project construction activities would be from a dozer, which may be used within 25 feet of the nearest off-site structures to the east when accounting for setbacks. A dozer would create approximately 0.089 inch per second peak particle velocity (PPV) at a distance of 25 feet (Federal Transit Administration [FTA] 2018). This would be lower than what is considered a distinctly perceptible impact for humans of 0.24 inch per second PPV, and the structural damage impact of 0.4 inch per second PPV. Therefore, although a dozer may be perceptible to nearby human receptors, temporary impacts associated with the dozer (and other potential equipment) would be less than significant. Once operational, the proposed project would not involve activities that would generate substantial vibration.
- l. **Less than significant.** The site is located within an area rated as "low to moderate" on the geological problems index (County of Santa Barbara 2015c). The proposed project would require some excavation and contouring; however, such earthwork would not be considered substantial excavation or import/export of soils as earthwork would be balanced on site with a maximum soil cut depth of 10 feet. In addition, the proposed fire station would be constructed in accordance with mandatory federal, state, and local laws, policies, regulations, and engineering/construction codes that guide

building design and construction. Therefore, impacts related to spoils, tailings, or over-burden would be less than significant.

Cumulative Impacts:

Since the proposed project would not result in significant geologic impacts and geologic impacts are typically localized in nature, impacts on geologic hazards under the proposed project would not be cumulatively considerable.

The sites of the cumulative projects likely vary in paleontological sensitivity, and there is a potential for discovery of unknown paleontological resources during construction of all cumulative projects. Although the first 10 feet below ground surface of the proposed fire station site has been assigned a low paleontological sensitivity, there is a potential that unknown paleontological resources may be encountered during project construction. Implementation of Mitigation Measure Geo-01 would reduce potentially significant impacts to paleontological resources associated with the proposed project to a less-than-significant level by halting construction activities if paleontological resources are discovered and preparing, identifying, analyzing, and permanently curating any significant resources. However, potentially significant impacts to such resources would be minimized by requiring cumulative projects to by implementation of similar measures. Therefore, cumulative cultural resources impacts could be potentially significant, but the project's contribution to such impacts would not be considerable and would therefore be less than significant.

Mitigation and Residual Impact:

The proposed project could result in potentially significant impacts to paleontological resources. Implementation of Mitigation Measure Geo-01 would reduce the potential for impacts to unanticipated fossils present on site by providing for the recovery, identification, and curation of paleontological resources. With implementation of the following measure, potential impacts would be reduced to a less-than-significant level:

MM Geo-01 Unanticipated Discovery of Paleontological Resources

In the event an unanticipated fossil discovery is made during project development, construction activity shall be halted in the immediate vicinity of the fossil, and a qualified professional paleontologist shall be notified and retained to evaluate the discovery, determine its significance, and determine if additional mitigation or treatment is warranted. Work in the area of the discovery shall resume once the find is properly documented and authorization is given to resume construction work. Any significant paleontological resources found during construction shall be prepared, identified, analyzed, and permanently curated in an approved regional museum repository under the oversight of the qualified paleontologist.

Plan Requirements and Timing. The qualified paleontologist shall evaluate any unanticipated fossil discovery made during ground-disturbing activities on the project site. The find shall be properly documented, and the findings shall be reported to the County. Construction activities shall resume once the paleontologist approves such. Any significant paleontological resources found during construction monitoring shall be prepared, identified, analyzed, and permanently curated in an approved regional museum repository under the oversight of the qualified paleontologist.

Monitoring. The County and/or qualified paleontologist shall monitor compliance with the above avoidance and minimization measures.

4.9 HAZARDOUS MATERIALS/RISK OF UPSET

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. In the known history of this property, have there been any past uses, storage or discharge of hazardous materials (e.g., fuel or oil stored in underground tanks, pesticides, solvents or other chemicals)?			✓		
b. The use, storage or distribution of hazardous or toxic materials?			✓		
c. A risk of an explosion or the release of hazardous substances (e.g., oil, gas, biocides, bacteria, pesticides, chemicals or radiation) in the event of an accident or upset conditions?			✓		
d. Possible interference with an emergency response plan or an emergency evacuation plan?				✓	
e. The creation of a potential public health hazard?			✓		
f. Public safety hazards (e.g., due to development near chemical or industrial activity, producing oil wells, toxic disposal sites, etc.)?				✓	
g. Exposure to hazards from oil or gas pipelines or oil well facilities?				✓	
h. The contamination of a public water supply?			✓		

The following impact discussion is based, in part, on a Phase I Environmental Site Assessment and a Phase II Environmental Site Assessment conducted by Rincon (2020 and 2021c, respectively). These reports are included in full as Attachments E and F, respectively.

Existing Setting:

Based on review of the GeoTracker (State Water Resources Control Board 2021), EnviroStor (California Department of Toxic Substances Control 2021), and EnviroMapper for Envirofacts (United States Environmental Protection Agency 2021) databases, no hazardous material sites or leaking underground storage tanks are located on the project site. In addition, according to a site reconnaissance conducted on April 15, 2020, no hazardous materials were identified on the site, including above and below ground storage tanks, noxious odors, pools of liquid, drums, hazardous substances, and petroleum products. However, the site contains trash/debris, metal pipes labeled “warning Gas Pipeline” and two gas pipeline markers that were interpreted to be natural gas pipelines. A soil vapor sampling was conducted on site, which determined that volatile organic compounds (VOCs), total petroleum hydrocarbons as gasoline (TPHg), and methane were not detected above laboratory reporting limits.

County Environmental Thresholds:

The County’s safety threshold addresses involuntary public exposure from projects involving significant quantities of hazardous materials. The threshold addresses the likelihood and severity of potential accidents to determine whether the safety risks of a project exceed significant levels.

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Impact Discussion:

a, e. **Less than significant impact.** The project site is currently vacant, and Google Earth historic aerial imagery shows the site has been vacant and undeveloped land since at least 1985. Parcels adjacent to the project site are currently designated as residential uses. As discussed under *Existing Setting*, no hazardous materials were identified on the site. Natural gas pipelines occur underground on site. However, soil vapor sampling results indicate the site has not been affected by the natural gas pipelines.

Construction of the proposed fire station would include the use of typical hazardous materials, such as diesel, oil, and other lubricants for the construction equipment. However, storage and use of such materials would be conducted in compliance with typical construction BMPs. Operation of the fire station would likely include the use and storage of gasoline, diesel, oil, and other lubricants for the fire trucks and equipment, as well as herbicides and pesticides for landscape maintenance, and limited quantities of paint, cleansers, and oxygen as part of their normal operations. These hazardous materials would be used, stored, and disposed of as directed by manufacturers' guidelines and requirements. Therefore, the project would not result in a public health hazard, and impacts would be less than significant.

b, c, h. **Less than significant.** Operation of the fire station would likely include the use and storage of oil and other lubricants for the fire trucks and equipment, as well as herbicides and pesticides for landscape maintenance, and limited quantities of paint, cleansers, and oxygen as part of their normal operations. The quantities of these materials are small enough that a Hazardous Materials Business Plan (HMBP) would not be required. In addition, the project would include one or two aboveground fuel tanks for the storage of up to 250 gallons of gasoline and up to 1,000 gallons of diesel (if only one fuel tank would be on the site, the tank will be bifurcated to hold both gasoline and diesel). The SBCFD is responsible for regulating and permitting aboveground fuel storage. Due to the small quantity of hazardous materials used in daily fire station operations, as well as SBCFD regulatory and permit requirements for aboveground fuel storage, the potential risk to the public and the environment resulting from accidental release of such materials would be less than significant.

d. **No Impact.** The proposed project would involve construction of a new fire station in the community of Orcutt and would therefore improve emergency access and the response time of fire protection services at the project site. By constructing a new fire station in the area, the project would also have a beneficial impact on the implementation of emergency response plans. No impact would occur.

f, g. **No impact.** The proposed project would not include new development near land uses that rely on the use of hazardous materials, such as chemical or industrial activity, producing oil wells, or toxic disposal sites. Furthermore, no oil or gas wells, other oil production facilities, or oil or gas pipelines are located on or adjacent to the project site. Based on the DOC Well Finder application, the nearest recorded oil and gas wells are located 800 feet to the south of the project site (DOC 2021c). No impact would occur.

Cumulative Impacts:

Implementation of the proposed project would not potentially result in significant impacts related to hazardous materials during construction. In addition, soil samples taken at the project site concluded safe levels of VOCs, TPHg, and methane occur on site and no mitigation is required. The proposed fire station would improve emergency services response times to the Santa Maria Valley/Orcutt area after construction of the project is completed. The proposed project would also comply with applicable federal, State, and local laws and regulations regarding hazardous materials. Therefore, impacts associated with hazardous materials/risk of upset from the proposed project would not be cumulatively considerable.

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Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required.

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4.10 LAND USE

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Structures and/or land use incompatible with existing land use?				✓	
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			✓		
c. The induction of substantial growth or concentration of population?			✓		
d. The extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project?			✓		
e. Loss of existing affordable dwellings through demolition, conversion or removal?				✓	
f. Displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓	
g. Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓	
h. The loss of a substantial amount of open space?				✓	
i. An economic or social effect that would result in a physical change? (i.e. Closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.)				✓	
j. Conflicts with adopted airport safety zones?				✓	

Existing Setting:

The project site is located at the western terminus of Brookside Avenue, directly north of Union Valley Parkway. The project site currently consists of undeveloped land and contains a portion of the Orcutt Open Space Area. The project site is primarily surrounded by urban land uses, which include residential uses to the north and east, and residential and recreational/open space uses to the south and west.

County Environmental Thresholds:

The County Environmental Thresholds (2021a) contain no specific thresholds for land use. Generally, a potentially significant impact can occur if a project would result in substantial growth-inducing effects or result in a physical change in conflict with County policies adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Discussion:

- a. **No impact.** The proposed project involves construction and operation of a fire station that would be constructed on a vacant parcel zoned as Design Residential 3.3 (DR-3.3) with a land use designation of RES-3.3 (Residential). The proposed project is considered an allowable land use within this zone and land use designation. Additionally, the project would not be incompatible with the nearby residential area directly east of the project site, as discussed in Section 4.1, *Aesthetics/Visual Resources*. Therefore, no impact would occur.
- b. **Less than significant with mitigation.** As discussed in the following subsections, with the implementation of mitigation measures, the proposed project would be consistent with all plans, policies, and regulations adopted for the purpose of mitigating an environmental effect, including the County's Comprehensive Plan and the Orcutt Community Plan. The project would be designed in accordance with the County's Engineering Design Standards, and land use and zoning standards.

Agricultural Resources

As discussed in Section 4.2, *Agricultural Resources*, the project site is zoned Design Residential (DR-3.3). The project site has low agricultural suitability and productivity. The proposed project is classified as urban and built up land by the Farmland Mapping and Monitoring Program. Because the project would not be built on farmland and has low agriculture suitability, there would be no effect on agricultural production or viability. Therefore, the proposed project would not convert prime agricultural soil to non-agricultural use, impair agricultural land or productivity, or conflict with agricultural preserve programs. Therefore, the project would be consistent with Policy LUA-O-2 of the Orcutt Community Plan and Goal I, Policy IA, Goal II, Policy II.D, and Goal III of the Agricultural Element of the Comprehensive Plan.

Air Quality

As discussed in Section 4.3a, *Air Quality*, the project construction activities would be subject to the County's grading ordinance to minimize fugitive dust and associated impacts to air quality the proposed project. Therefore, the project would have a less than significant impact on the violation of any ambient air quality standard, a substantial contribution to an existing or projected air quality violation, or exposure of sensitive receptors to substantial pollutant concentrations (emissions from direct, indirect, mobile, and stationary sources) and extensive dust generation with implementation Mitigation Measure Air-01. Therefore, with mitigation, the proposed project would be consistent with Policy AQ-O-2 of the Orcutt Community Plan.

Biological Resources

As discussed in Section 4.4, *Biological Resources*, the proposed project may result in direct and indirect impacts to special status wildlife species, nesting birds, and native trees. Implementation of Mitigation Measures Bio-01 through Bio-04 would require measures for surveys, and native tree replacement, which would reduce biological resources impacts to a less-than-significant level. Therefore, with mitigation, the project would be consistent with Policy BIO-O-3, DevStd

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BIO-O-3.1, Policy BIO-O-4, DevStd BIO-O-4.1, Policy BIO-O-5, and DevStd BIO-O-5.1 of the Orcutt Community Plan.

Energy

As discussed in Section 4.6, *Energy*, construction and operation of the proposed project would not result in a substantial increase in demand on existing sources of energy and would not require the development or extension of new sources of energy. In addition, the project, which would be a governmental facility, would be required to comply with Goal 1 and Policy 1.3 of the Energy Element of the County's Comprehensive Plan, which promotes such facilities to be energy efficient.

Flooding and Drainage

As discussed in Section 4.15, *Water Resources/Flooding*, the proposed project would include drainage improvements consistent with the Central Coast RWCQB's post-construction stormwater management requirements and would follow relevant performance requirements. The project would be constructed in accordance with mandatory federal, State, and local laws, policies, and regulations, which would require implementation of a project-specific SWPPP that would address erosion, sediment discharge, and water quality and pollution control during all phases of construction through implementation of BMPs. In addition, implementation of Mitigation Measure Wat-01 would be required to address operational impacts to water quality through implementation of a Post-Construction Stormwater Control Plan. Therefore, with mitigation, the project would be consistent with Policy FLD-O-2, DevStd FLD-O-2.1, Policy FLD-O-3, DevStd FLD-O-3.1, and DevStd FLD-O-3.2 of the Orcutt Community Plan and Hillside and Watershed Protection Policies 1 through 7 of the Land Use Element of the Comprehensive Plan.

Historical and Archaeological Resources

As discussed in Section 4.5, *Cultural Resources*, the cultural resources records search did not identify any cultural resources within or near the cultural study area and the pedestrian survey did not identify resources that indicate archaeological remains. Furthermore, the proposed project would be required to implement a standard condition of approval to stop work in the event archaeological remains are encountered during grading, construction, or other construction-related activities, which would reduce potential impacts to previously-unidentified archaeological resources to a less-than-significant level. Therefore, the proposed project would be consistent with Historical and Archaeological Sites Policies 2, 3, and 5 of the Land Use Element of the Comprehensive Plan.

Noise

As discussed in Section 4.11, *Noise*, project construction activities would potentially result in temporarily elevated noise levels in excess of the County's noise threshold of 65 CNEL at sensitive receivers to the east of the project site where residences exist on Brookside Avenue. Implementation of Mitigation Measure N-01 would restrict construction activities to standard construction working hours of 7:00 a.m. to 4:00 p.m. on weekdays and would require the use of noise attenuation measures such as barriers and mufflers to reduce construction noise to below the County's threshold. Therefore, with mitigation, the proposed project would be consistent with Policy NSE-O-2, DevStd NSE-O-2.1, and DevStd NSE-O-2.2 of the Orcutt Community Plan.

Seismic Safety and Safety Element

As discussed in Section 4.6, *Geologic Processes*, the proposed project would not increase the potential for fault rupture and related hazards, such as landslides, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar

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hazards to occur. In addition, the proposed fire station would be constructed in accordance with mandatory federal, State, and local laws, policies, regulations, and engineering/construction codes that guide the construction and design of buildings and structures. Therefore, the proposed project would be consistent with the geologic and seismic goals and policies of the Seismic Safety and Safety Element of the Comprehensive Plan.

Visual/Aesthetic Resources

As discussed in Section 4.1, *Aesthetics/Visual Resources*, the proposed project would not result in significant impacts to scenic vistas, public view corridors, public viewsheds, or the visual character of the project area. Therefore, the project would be consistent with Policy VIS-O-2, DevStd VIS-O-2.1, and Policy VIS-O-4 of the Orcutt Community Plan.

Key Site 27 Development Standards

The project site is located within Key Site 27. Of the Key Site 27 development standards included in the Orcutt Community Plan, Policy KS27-1, DevStd KS27-1, and DevStd KS27-2 would apply to the project. The Airport “No Build Zone” is not overlain on the project site (County of Santa Barbara 2021f) and the proposed fire station would not be built within the Orcutt Open Space Area. Landscaping would be incorporated into the project design. Therefore, the project would be consistent with Policy KS27-1, DevStd KS27-1, and DevStd KS27-2 of the Orcutt Community Plan, which address development standards.

- c. **Less than significant.** A development project can induce growth by removing existing constraints to growth, such as by extending roadways and utility infrastructure to previously unserved areas. In assessing the potential growth inducement of a proposed project, it is important to clearly identify growth induced by the project beyond that already anticipated and planned for by local land use agencies.

The project involves construction and operation of a local fire station that would improve emergency response time and the provision of fire protection services to the Orcutt and Santa Maria Valley area. As described in Section 1.2, *Project Objective*, the purpose of the project is to improve safety and emergency response time in the Orcutt and Santa Maria Valley Area.

The project would generate a small number of new job opportunities that would likely be filled by people from the local region and would not result in a substantial relocation of people to the project area. Currently, the two county fire stations serving the Orcutt and Santa Maria Valley area, Fire Stations 21 and 26 are operated by four staff members each. In addition, the Orcutt Community Plan states a total of nine additional full-time fire fighters will be required by buildout of the plan.

Therefore, the proposed project would not induce substantial growth or concentration of population beyond what was considered in the Orcutt Community Plan Area, and impacts would be less than significant.

- e-g. **No impact.** No dwellings adjoin or exist on the project site. Therefore, the proposed project would not displace or otherwise affect existing dwellings or people. No impact would occur.
- h. **No impact.** A portion of the project site is part of the Orcutt Open Space Area; however, grading and construction for the project would not encroach into this area. Therefore, no impact would occur.
- i. **No impact.** The proposed project involves a fire station that would improve safety and emergency response time to the Orcutt and Santa Maria Valley area. Therefore, the project would not result in any social or economic effects that would cause a physical change in the local community. No impact would occur.

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- j. **Less than significant.** The project site is located approximately 1.4 miles southeast of Santa Maria Airport Runway 30 and is within the Airport Approach Zone (F[APR]) (SBCAG 1993); however, the project site is outside the Airport No Build Zone. According to the County of Santa Barbara Land Use and Development Code, the Airport Clear and Approach zones are land uses that extend from the end of a runway and are subject to particular hazards requiring land use restrictions to promote public safety and preserve navigable airspace. According to subsection F.1(a) of the Land Use Code 35.28.060-Airport Approach (F) Overlay Zone, the highest point of any structure above the elevation of Runway 30 shall not exceed one vertical foot per 34 feet of horizontal distance between the structure and the runway end. The fire station is 1.4 miles away from the end of Runway 30, is within the F(APR), and would have a maximum building height of 32 feet. The project would not interfere with any adopted airport safety zones, and impacts would be less than significant.

Cumulative Impacts:

With mitigation from this IS-MND incorporated, implementation of the project is not anticipated to result in a substantial change to the site's conformance with environmentally protective policies and standards or have significant growth-inducing effects. Buildout of the Orcutt area would continue to urbanize this community and result in additional loss of open space areas. The Orcutt Community Plan EIR, Case No, 95-EIR-01 (1997b), identified potentially significant impacts resulting from Orcutt Community Plan buildout due to increased regional traffic, economic fiscal impacts, conversion of agricultural land, and urbanization of rural and semi-rural areas. Cumulative development in the Orcutt area would also result in short-term construction air and noise emissions, and long-term land use compatibility effects related to quality of life issues, noise and traffic nuisances, aesthetic incompatibility, and agriculture/urban conflicts. The potential land use conflicts of each cumulative project would be addressed on a case-by-case basis as individual projects are reviewed by County decision-makers. Implementation of County policies and development standards related to land use in the Orcutt Community Plan, Comprehensive Plan, and Land Use Development Code would minimize these potential cumulative impacts. Therefore, cumulative land use impacts would be less than significant.

Mitigation and Residual Impact:

The proposed project could result in a potentially significant land use impact due to impacts to air quality, biological resources, noise, and water quality. With implementation of Mitigation Measures Air-01 (see Section 4.3a, *Air Quality*), Bio-01 through Bio-04 (see Section 4.4, *Biological Resources*), N-01 (see Section 4.11, *Noise*), and Wat-01 (see Section 4.15, *Water Resources/Flooding*), impacts would be reduced to a less-than-significant level.

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4.11 NOISE

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Long-term exposure of people to noise levels exceeding County thresholds (e.g. locating noise sensitive uses next to an airport)?			✓		
b. Short-term exposure of people to noise levels exceeding County thresholds?		✓			
c. Project-generated substantial increase in the ambient noise levels for adjoining areas (either day or night)?			✓		

Existing Setting:

Overview of Noise and Vibration

Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

Human Perception of Sound

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not “sound twice as loud” as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (8 times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (10.5 times the sound energy) (Caltrans 2013).

Sound Propagation and Shielding

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in the noise level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions.

Sound levels are described as either a “sound power level” or a “sound pressure level,” which are two distinct characteristics of sound. Both share the same unit of measurement, the dB. However, sound power (expressed as L_{pw}) is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers, such as an eardrum or

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microphone, which is the sound pressure level. Sound measurement instruments only measure sound pressure, and noise level limits are typically expressed as sound pressure levels.

Noise levels from a point source (e.g., construction, industrial machinery, air conditioning units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this “shielding” depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (FHWA 2011). Structures can substantially reduce exposure to noise as well. The FHWA’s guidance indicates that modern building construction generally provides an exterior-to-interior noise level reduction of 10 dBA with open windows and an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows (FHWA 2011).

Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. The noise descriptors used for this study are the equivalent noise level (L_{eq} and the community noise equivalent level (CNEL; may also be symbolized as L_{den}).

L_{eq} is one of the most frequently used noise metrics; it considers both duration and sound power level. The L_{eq} is defined as the single steady-state A weighted sound level equal to the average sound energy over a time period. When no time period is specified, a 1-hour period is assumed. The L_{max} is the highest noise level within the sampling period, and the L_{min} is the lowest noise level within the measuring period. Normal conversational levels are in the 60 to 65 dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise can be measured using Community Noise Equivalent Level (CNEL or LDEN), which is the 24 hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013). The relationship between the peak-hour L_{eq} value and the LDN/CNEL depends on the distribution of noise during the day, evening, and night; however noise levels described by LDN and CNEL usually differ by 1 dBA or less. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 CNEL, while areas near arterial streets are in the 50 to 60+ CNEL range (FTA 2018).

Groundborne Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures and vibration energy may propagate through the buildings or structures. Vibration may be felt, may manifest as an audible low-frequency rumbling noise (referred to as groundborne noise), and may cause windows, items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants at vibration-sensitive land uses and may cause structural damage.

Typically, ground-borne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS) vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or

negative peak of a vibration signal. PPV is often used as it corresponds to the stresses that are experienced by buildings (FTA 2018).

High levels of groundborne vibration may cause damage to nearby building or structures; at lower levels, groundborne vibration may cause minor cosmetic (i.e. non-structural damage) such as cracks. These vibration levels are nearly exclusively associated with high impact activities such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation. The American Association of State Highway and Transportation Officials (AASHTO) has determined vibration levels with potential to damage nearby buildings and structures; these levels are identified in Table 13.

Table 13 AASHTO Maximum Vibration Levels for Preventing Damage

Type of Situation	Limiting Velocity (in/sec)
Historic sites or other critical locations	0.1
Residential buildings, plastered walls	0.2–0.3
Residential buildings in good repair with gypsum board walls	0.4–0.5
Engineered structures, without plaster	1.0–1.5
Source: Caltrans 2020	

Numerous studies have been conducted to characterize the human response to vibration. The vibration annoyance potential criteria recommended for use by Caltrans, which are based on the general human response to different levels of groundborne vibration velocity levels, are described in Table 14.

Table 14 Vibration Annoyance Potential Criteria

Human Response	Vibration Level (in/sec PPV)	
	Transient Sources	Continuous/Frequent Intermittent Sources ¹
Severe	2.0	0.4
Strongly perceptible	0.9	0.10
Distinctly perceptible	0.25	0.04
Barely perceptible	0.04	0.01
in/sec = inches per second; PPV = peak particle velocity Source: Caltrans 2020 ¹ Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.		

Project Noise Setting

The most prevalent source of noise in the project site vicinity is vehicular traffic on Union Valley Parkway, which runs adjacent to the southern portion of the project site. Santa Maria Public Airport aircraft over-flight noise is a secondary noise source in the project site vicinity. Ambient noise levels are generally highest during the daytime and rush hours unless congestion substantially slows speeds, which tends to reduce ambient noise levels.

Sensitive Receivers

The County Environmental Thresholds (2021a) state that noise-sensitive land uses include residential dwellings, transient lodging, hospitals, educational facilities, libraries, churches, and places of public assembly. Noise-sensitive land uses adjacent to the location of the proposed project consist of single-family residential land uses and open space. Single-family residential uses are also located across Union Valley Parkway, approximately 215 feet to the south, and multi-family residential uses are located

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approximately 400 feet to the northwest. Most of the existing sensitive land uses in the immediate area are located north of Union Valley Parkway.

Noise Measurements

To characterize ambient noise levels at and near the project site, two short-term 15-minute sound level measurements were conducted on August 5, 2021, and one 24-hour measurement was conducted on August 5 and 6, 2021. An Extech, Model 407780A, ANSI Type 2 integrating sound level meter was used to conduct the measurements. The sound meter was calibrated prior to measurements. Noise Measurement (NM) 1 was conducted adjacent existing residences at the northeastern edge of the project site to represent noise levels at residential uses to the east of the project site. NM2 was conducted at the southern portion of the project site adjacent to Union Valley Parkway. Long-term Measurement (LT) 1 was measured at the project's northern portion of the site to capture 24-hour noise levels on-site nearest the off-site residences to the north of the project site. Figure 6 shows the measurement locations, Table 15 summarizes the results of the short-term noise measurements, and Table 16 summarizes the results of the long-term noise measurements.

Table 15 Project Site Noise Monitoring Results – Short Term

Measurement Location	Measurement Location	Sample Times	Approximate Distance to Primary Noise Source	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)
NM1	Northeastern portion of project site, adjacent to residential backyard	12:09 – 12:24 p.m.	400 feet from East Union Valley Parkway	49	44	64
NM2	Southern portion of project site adjacent to East Union Valley Parkway	12:30 – 12:45 p.m.	60 feet from East Union Valley Parkway	67	47	78

Detailed sound level measurement data are included in Attachment G and shown on Figure 6.
Traffic counts at NM2: 183 autos (90.6 percent), 1 medium truck (0.5 percent), 18 heavy trucks (8.9 percent)

Table 16 Project Site Noise Monitoring Results – Long Term

Sample Time	dBA L_{eq}	Sample Time	dBA L_{eq}
LT1 – Northern Boundary of Project Site, August 5 and 6, 2021			
12:59 p.m.	48	12:59 a.m.	32
1:59 p.m.	50	1:59 a.m.	37
2:59 p.m.	50	2:59 a.m.	35
3:59 p.m.	51	3:59 a.m.	38
4:59 p.m.	53	4:59 a.m.	42
5:59 p.m.	48	5:59 a.m.	47
6:59 p.m.	47	6:59 a.m.	48
7:59 p.m.	45	7:59 a.m.	47
8:59 p.m.	45	8:59 a.m.	46
9:59 p.m.	43	9:59 a.m.	46
10:59 p.m.	38	10:59 a.m.	46
11:59 p.m.	37	11:59 a.m.	47
24-hour Noise Level, dBA CNEL			50
Source: Rincon Consultants, field measurements conducted on July 6 and 7, 2021, using ANSI Type II Integrating sound level meter. See Attachment G.			

Figure 6 Noise Measurement Locations



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Fig 6 Noise Measurement Locations

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County Environmental Thresholds:

Chapter 13, Noise Thresholds, of the County Environmental Thresholds (2021a) establishes the following noise thresholds:

- A proposed development that would generate noise levels in excess of 65 CNEL and could affect sensitive receivers would generally be presumed to have a significant impact.
- Outdoor living areas of noise sensitive uses that are subject to noise levels in excess of 65 CNEL would generally be presumed to be significantly impacted by ambient noise. A significant impact would also generally occur where interior noise levels cannot be reduced to 45 CNEL or less.
- A project will generally have a significant effect on the environment if it will increase substantially the ambient noise levels for noise-sensitive receivers adjoining areas. This may generally be presumed when ambient noise levels affecting sensitive receivers are increased to 65 CNEL or more. However, a significant effect may also occur when ambient noise levels affecting sensitive receivers increase substantially, by 3 CNEL, but remain less than 65 CNEL, as determined on a case-by-case level.
- A project will generally have a significant effect on the environment if it will increase substantially the ambient interior noise levels for noise-sensitive receivers adjoining areas. This may generally be presumed when ambient interior noise levels affecting sensitive receivers are increased above 45 CNEL or more. A significant effect may also occur when existing ambient interior noise levels exceed 45 CNEL at sensitive receivers and the project results in an increase of interior noise levels by 3 CNEL at those interior areas of sensitive receivers.
- Noise from grading and construction activity proposed within 1,600 feet of sensitive receivers, including schools, residential development, commercial lodging facilities, hospitals or care facilities, would generally result in a potentially significant impact. According to EPA guidelines, average construction noise is 95 dBA at a 50-foot distance from the source. A 6-dBA drop occurs with a doubling of the distance from the source. Therefore, locations within 1,600 feet of the construction site would be affected by noise levels over 65 dBA. To mitigate this impact, construction within 1,600 feet of sensitive receivers shall be limited to weekdays between the hours of 8:00 a.m. to 5:00 p.m. only. Noise attenuation barriers and muffling of grading equipment may also be required. Construction equipment generating noise levels above 95 dBA may require additional mitigation.

Impact Discussion

- a, c. **Less than significant.** Based on the CalEEMod modeling results (Attachment A), average daily operational traffic would be approximately 41 trips per day. Sensitive receivers to the east and adjacent to Union Valley Parkway are located within the 65 to 70 CNEL noise level contour of Union Valley Parkway (see NM2 of Table 14); therefore, noise levels at these locations are already elevated above the County's 65 CNEL standard. Noise generated by operational traffic would not substantially increase noise levels at these receivers given that operational traffic would represent approximately 0.2 percent of existing daily traffic volumes of approximately 17,000 vehicles on the segment of Union Valley Parkway adjacent to the project site (County of Santa Barbara 2020b).

Based on combined data from Trane, Carrier, and Rheem HVAC manufacturing companies, noise from HVAC equipment would typically generate a noise level in the range of 70 dBA L_{eq} at a reference distance of 3 feet from the source. The nearest noise-sensitive receivers, consisting of the single-family residences to the east of the site, would be located at least 185 feet from the nearest rooftop-mounted HVAC equipment based on the location of the fire station, assuming HVAC equipment would be mounted in the center of the proposed fire station rooftop, and the distance between the fire station and off-site residence adjacent to the site's eastern boundary. Because noise from HVAC equipment would attenuate at a rate of approximately 6 dBA per doubling of distance

from the source, rooftop-mounted equipment would generate an estimated noise level of 34 dBA L_{eq} at 185 feet. Furthermore, rooftop HVAC units are traditionally shielded from surrounding land uses with parapets and roofs that block line-of-sight to sensitive receivers would typically provide at least a 5 dBA noise reduction. Project HVAC operation would not exceed 65 dBA CNEL or result in a 3 dBA increase in existing noise levels due to HVAC use at the proposed fire station.

Noise-sensitive receivers in the immediate project vicinity may experience periodic exposure to high noise levels due to siren use. In terms of magnitude of noise exposure, a typical siren emits approximately 100 dB at 100 feet. However, because emergency vehicle response is, by nature, rapid, the duration of exposure to these peak noise levels is estimated to last for a maximum of 10 seconds as emergency vehicles pause at the driveway exit, engage the siren and turn onto the roadway and accelerate rapidly away from the fire station. Therefore, residents of existing nearby homes would be exposed to short-duration high noise levels for approximately ten seconds during an emergency event. Further, the typical practice for emergency siren use is to use sirens to break traffic at intersections or warn drivers of the emergency vehicle approach when traffic is congested. Responses to nighttime emergency calls, when nuisance noise is most noticeable, routinely occur without the use of sirens. Other homes and residents along routes used for emergency access would also be exposed to similar noise levels, although the magnitude and frequency of this exposure would vary by distance from the road and proximity to the project site. The duration of such exposure would likely be less than the projected ten seconds for homes and residents further away from the project site, as the emergency vehicles would generally be assumed to be passing at full speed, with no time required for turning out of the driveway or accelerating. The relatively short duration of events and the low frequency of siren use would not substantially change the existing CNEL for the vicinity and would not exceed 65 CNEL or result in a 3 dBA increase in existing noise levels due to emergency vehicle and siren use at the proposed fire station. Therefore, operational noise impacts due to off-site traffic increases, HVAC operation, and emergency siren use from the proposed fire station would be less than significant.

- b. **Less than significant with mitigation.** Project construction activities would occur approximately 75 feet from adjacent sensitive receivers located to the east and north of the project site. Construction activities and operation of heavy equipment (e.g., graders and bulldozers) and stationary equipment (e.g., generators) would generate short-term noise during project construction. Construction noise impacts were estimated using the FHWA Roadway Construction Noise Model (RCNM) (2006). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Noise impacts from stationary equipment are assessed from the center of the equipment, while noise impacts from mobile construction equipment are assessed from the center of the equipment activity area (e.g., construction site).

RCNM provides reference noise levels for standard construction equipment, with an attenuation of 6 dBA per doubling of distance. Project construction phases would include site preparation, grading, building construction, architectural coating, and paving of the project site. It is assumed that diesel engines would power all construction equipment. For assessment purposes, the “loudest” construction hour has been used for this assessment regardless of phase (i.e., grading, demolition, and building construction), and has been modeled under the conservative assumption that a dozer, an excavator, and a front-end loader would be operating simultaneously. Using RCNM, construction noise levels were estimated at noise-sensitive residential receivers adjacent to the project site, approximately 180 feet from the center of the construction site.

Maximum hourly noise levels during project construction were calculated at approximately 70 dBA L_{eq} at the nearest single-family residences to the north and east of the project site. Therefore, construction noise could contribute to the exceedance of the County’s 65 CNEL noise threshold, especially if construction activities occur during times when sensitive receivers experience lower

ambient noise levels (e.g., evening and nighttime). In addition, DvdStd NSE-O-2.1 of the Orcutt Community Plan states that standard construction working hours of 7:00 a.m. to 4:00 p.m. are required for all development activities, although flexibility to allow extended hours on weekdays or occasional working hours on Saturdays can be permitted on a case-by-case basis (County of Santa Barbara 1997a). With implementation of Mitigation Measure N-01 (see below), which limits construction noise to 65 CNEL at the property line of sensitive receivers and establishes requirements for construction working hours, the potential impact would be reduced to a less-than-significant level. Therefore, impacts related to the short-term exposure of people to noise levels exceeding County thresholds would be less than significant with mitigation.

Cumulative Impacts:

The proposed project would introduce permanent noise sources of low frequency and low duration and are would not contribute to the cumulative effects of other pending and ongoing projects. The proposed project would not cumulatively increase vehicular traffic on Union Valley Parkway. Therefore, the proposed project would not increase long-term ambient noise levels within the project site and immediate vicinity. As such, the impacts of the proposed project combined with the impacts of cumulative projects listed in Table 2 in Section 3.3, *Cumulative Impacts Methodology*, would be less than cumulatively considerable.

Project construction activities would generate short-term noise that could impact noise-sensitive land uses within and near the project site. Project construction would begin in the summer of 2027; therefore, it is possible the proposed project would be constructed at the same time as other cumulative projects located within 1,600 feet of noise-sensitive receivers impacted by construction activities associated with the proposed project. However, Mitigation Measure N-01 would reduce the short-term noise impacts of the proposed project to a less-than-significant level. Therefore, the proposed project's contribution to a significant cumulative noise impact would be less than cumulatively considerable.

Mitigation and Residual Impact:

The proposed project could result in a potentially significant impact if construction noise causes an exceedance of the County's noise threshold of 65 CNEL at residential properties adjacent to the project site. With implementation of Mitigation Measure N-01, the potential impact would be reduced to a less-than-significant level:

MM N-01 Construction Noise Control and Equipment Shielding. The project proponent, including all contractors and subcontractors, shall limit construction activity, including equipment maintenance and site preparation, to the hours of 7:00 a.m. and 4:00 p.m., Monday through Friday. No construction shall occur on weekends or State holidays. Non-noise generating interior construction activities such as plumbing, electrical, drywall and painting (which does not include the use of compressors, tile saws, or other noise-generating equipment) are not subject to these restrictions. Any subsequent amendment to the Comprehensive General Plan, applicable Community or Specific Plan, or Zoning Code noise standard upon which these construction hours are based shall supersede the hours stated herein.

Construction noise shall be limited to 65 CNEL as measured at the property line of existing noise-sensitive residential land uses. The contractor may utilize a combination of techniques to reduce the impact of construction to less than 65 CNEL, such as the following noise attenuation techniques:

- Use new or well-maintained construction equipment that reduces sound levels.

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- Maintain acoustic shielding of stationary construction equipment that generates noise in excess of 65 dBA L_{eq} .
- Implement a phased construction schedule to minimize or avoid multiple noise-generating activities occurring at the same time.
- Locate stationary construction equipment away from noise-sensitive land uses.
- Turn off idling equipment.
- Use other noise-dampening and sound diversion techniques.

PLAN REQUIREMENTS: These requirements shall be noted in plan specifications. Additionally, the project proponent shall provide and post a sign stating these restrictions at all construction site entries.

TIMING: The project proponent and contractor shall demonstrate compliance with noise standards to the County prior to commencement of construction and throughout construction activities. Signs shall be posted prior to commencement of construction and maintained throughout construction.

MONITORING: The project proponent shall demonstrate that required signs are posted prior to grading/building permit issuance and pre-construction meeting. Building inspectors and permit compliance staff shall spot check and respond to complaints.

4.12 PUBLIC FACILITIES

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. A need for new or altered police protection and/or health care services?				✓	
b. Student generation exceeding school capacity?				✓	
c. Significant amounts of solid waste or breach any national, state, or local standards or thresholds relating to solid waste disposal and generation (including recycling facilities and existing landfill capacity)?			✓		
d. A need for new or altered sewer system facilities (sewer lines, lift-stations, etc.)?			✓		
e. The construction of new storm water drainage or water quality control facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓		

Existing Setting:

Public services include law enforcement, fire protection, schools, library, solid waste management, water, wastewater, and specialized facilities such as landfills and jails. Section 4.7, *Fire Protection*, addresses fire hazards and protection. Sections 4.13, *Recreation*, and 4.14, *Transportation/Circulation*, address potential impacts to recreation uses, and to roads and other transportation infrastructure, respectively.

The project site is located within the current service area of the SBCFD Fire Station 26 located at 1600 Tiffany Park Court in Santa Maria and the Santa Barbara County Sheriff's Office at the Santa Maria Station located at 812-A West Foster Road in Santa Maria. The site is also within the boundaries of the Orcutt Union School District, which provides instruction for kindergarten through eighth grade, and the Santa Maria Joint Union High School District (SMJUHSD), which provides high school instruction. Solid waste generated in the vicinity of the project is transported to and disposed of at the Santa Maria Regional Landfill.

County Environmental Thresholds:

The County Environmental Thresholds (2021) includes guidelines for the assessment of impacts to public facilities. The following threshold is applicable to this project:

Solid Waste

Any construction, demolition, or remodeling project of a commercial, industrial or residential development that is projected to create more than 350 tons of construction and demolition debris would have a significant impact on public services.

Impact Discussion

- a, b. **No impact.** The proposed project would involve construction and operation of a fire station in the Orcutt community. The proposed project would not include residential or commercial development or facilities that would require police protection, health care services, or school

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facilities. The proposed project would provide a small number of additional employment opportunities in the local area; however, due to the nature of these opportunities, it is expected that they would be filled by current residents of the region. Therefore, the provision of additional employment opportunities would not indirectly induce substantial population growth that would require additional police protection services, health care services, or school facilities. Therefore, no impact on these public facilities would occur.

- c. **Less than significant.** In an effort to address landfill capacity and solid waste concerns, the California Legislature passed the Integrated Waste Management Act in 1989 (AB 939), which mandated a reduction in waste disposed in landfills by 50 percent by the year 2000. Solid waste generation during construction of the proposed fire station would be short-term and minimal. The project site consists of approximately 4.6 acres of vacant land, and therefore, would not require demolition of existing structures. Furthermore, construction waste generated during project construction activities would be minimal, especially given construction contractors would be required to comply with the California Green Building Standards Code, which requires diversion of at least 65 percent of construction and demolition waste for all projects. Therefore, impacts would be less than significant.

Based on the waste generation factors in the County Environmental Thresholds (2021a), the proposed project would generate approximately 49 tons per year of operational solid waste. This is based on a conservative solid waste generation factor of 0.0057 ton per year per s.f. (8,600-s.f. “miscellaneous services” building x 0.0057 ton). This amount is less than the threshold for operational solid waste of 196 tons per year. Therefore, operational impacts would be less than significant.

- d. **Less than significant.** The proposed project would involve a new fire station, which would include restrooms and a kitchen. Therefore, the project would require the extension of sewer pipelines onto the project site. However, the project’s demand on sewer services would be minimal as only a few staff would occupy the fire station at any given time. The proposed project would not generate demand for new or altered sewage system facilities beyond the extension of a sewer connection to the site. Impacts would be less than significant.
- e. **Less than significant.** The project site is within the County’s NPDES Municipal General Permit area and is subject to the Central Coast RWQCB post-construction requirements, which list a number of on-site performance requirements to reduce pollution discharge (County of Santa Barbara 2019). Furthermore, compliance with the NPDES California State Construction General Permit would require the creation and implementation of a project-specific SWPPP, which would include BMPs to prevent stormwater pollution and would address erosion and sediment discharge during construction. With regulatory compliance, potential impacts associated with construction of new stormwater drainage, water quality control, or the expansion of existing facilities would be less than significant.

Cumulative Impacts:

Implementation of the proposed project would not result in significant impacts to public facilities, as the new fire station would include minimal staff that would likely come from the region. Thus, the project would not contribute to any cumulatively considerable effects to public facilities.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required.

4.13 RECREATION

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Conflict with established recreational uses of the area?				✓	
b. Conflict with biking, equestrian and hiking trails?				✓	
c. Substantial impact on the quality or quantity of existing recreational opportunities (e.g., overuse of an area with constraints on numbers of people, vehicles, animals, etc. which might safely use the area)?				✓	

Existing Setting:

The project site is not located on any existing County-designated recreational facilities; however, Trail UVP-1 is located along the northern sidewalk of Union Valley Parkway in the project area (County of Santa Barbara 1997c). The project site contains a small portion of the Orcutt Open Space Area, which covers most of the western portion of the 4.6-acre project site; however, no trails that are considered a part of the Orcutt Open Space Area exist on or adjacent to the project site. Bicycle lanes currently exist along Union Valley Parkway.

Impact Discussion:

- a. **No impact.** The proposed project would involve an 8,600-s.f. fire station on an approximately 4.6-acre project site. The project would not alter recreational uses in the area and would not impact the Orcutt Open Space Area as the proposed development would not be constructed on the portion of the project site where such exists. No impact would occur.
- b. **No impact.** The project site does not contain trails that are part of the Orcutt Open Space Area. However, Trail UVP-1 is located along the northern sidewalk of Union Valley Parkway in the project area and bicycle lanes are present along Union Valley Parkway adjacent to the project site. The proposed project would not affect the existing sidewalk or bicycle lanes along Union Valley Parkway. Therefore, the project would not conflict with biking, equestrian and hiking trails, and no impact would occur.
- c. **No impact.** The proposed project would involve a new fire station. The proposed project would not include residential uses that would directly generate new population. The proposed project would provide a small number of additional employment opportunities in the local area; however, due to the nature of these opportunities, it is expected they would be filled by current residents of the region. Therefore, the provision of additional employment opportunities would not indirectly induce substantial population growth that would impact the quality or quantity of recreational opportunities. No impact would occur.

Cumulative Impacts:

Implementation of the proposed project would not result in any substantial change to the project site that would affect recreational facilities. Thus, the proposed project would not contribute to any cumulatively considerable effects to recreation.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required.

4.14 TRANSPORTATION

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?				✓	
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)?				✓	
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				✓	
d. Result in inadequate emergency access?				✓	

Existing Setting:

Union Valley Parkway, which runs adjacent to the project site's southern boundary, includes a Class II-designated bicycle lane in each direction, which terminates prior to the existing cul-de-sac east of the U.S. 101 on-/off-ramp to the east and at the intersection of Union Valley Parkway and South Blosser Road to the west. Union Valley Parkway also has a sidewalk along the eastbound lane that terminates at the U.S. 101 on-/off-ramp to the east and at the intersection of Union Valley Parkway and South Blosser Road to the west. No sidewalk exists along the westbound lane of Union Valley Parkway along the frontage of the project site. No bicycle lanes are present along Brookside Avenue; however, there are sidewalks present along both lanes of Brookside Avenue. There are no existing transit facilities along Union Valley Parkway at the project site frontage.

County Environmental Thresholds:

According to the County's Environmental Thresholds and Guidelines Manual, a significant transportation impact would occur when:

- a. **Potential Conflict with a Program, Plan, Ordinance, or Policy.** The Santa Barbara County Association of Governments' (SBCAG) 2040 Regional Transportation Plan and Sustainable Communities Strategy (SBCAG 2017) and the County's Comprehensive Plan, zoning ordinances, capital improvement programs, and other planning documents contain transportation and circulation programs, plans, ordinances, and policies. Threshold question "a" considers a project in relation to those programs, plans, ordinances, and policies that specifically address multimodal transportation, complete streets, transportation demand management (TDM), and other vehicle miles traveled (VMT)-related topics. The County and CEQA Guidelines Section 15064.3(a) no longer consider automobile delay or congestion an environmental impact. Therefore, threshold question "a" does not apply to provisions that address level of service (LOS) or similar measures of vehicular capacity or traffic congestion. A transportation impact occurs if a project conflicts with the overall purpose of an applicable transportation and circulation program, plan, ordinance, or policy, including impacts to existing transit systems and bicycle and pedestrian networks pursuant to Public Resources Code Section 21099(b)(1). In such cases, applicants must identify project modifications or mitigation measures that eliminate or reduce inconsistencies with

applicable programs, plans, ordinances, and policies. For example, some community plans include provisions that encourage complete streets. As a result, an applicant for a multifamily apartment complex may need to reduce excess parking spaces, fund a transit stop, and/or add bike storage facilities to comply with a community plan's goals and policies.

- b. Potential Impact to VMT.** Threshold question “b” establishes VMT as the metric to determine transportation impacts. Because VMT is a new metric, this section begins with background information on VMT and then outlines a three-step process for analyzing and, if necessary, mitigating a project's VMT impacts.

1. Background Information

County VMT

The County uses SBCAG's Regional Travel Demand Model (RTDM) to estimate VMT. The RTDM (TransCAD Version 6.0) is a four-step travel demand model that performs the following classical modeling steps:

1. Trip generation (number of trips),
2. Trip distribution (where those trips go),
3. Mode choice (how the trips are divided among the available modes of travel), and
4. Trip assignment (route trips will take).

Each trip forecasted in the RTDM has a purpose, type, origin, and destination. The RTDM estimates and forecasts travel by traffic analysis zones (TAZ) for a 24-hour period⁴ on a typical weekday. Approximately 360 TAZs have significant portions within the unincorporated areas of the county.

The SBCAG RTDM requires a geographic boundary to define the extent of data to select and analyze. The County's VMT metrics, described in the subsection below, use the unincorporated areas of the county (entire Santa Barbara County, excluding incorporated cities) as the geographic boundary for estimating VMT. This chapter refers to VMT for the unincorporated areas as “county VMT.” County VMT reflects all vehicle-trips that start and/or end in the unincorporated areas of Santa Barbara County.

SBCAG periodically updates the RTDM's data and functions, such as when it prepares a new regional transportation plan/sustainable community strategy (RTP/SCS). The County uses the most up-to-date version of the RTDM to estimate VMT and evaluate transportation impacts.

Project-Level VMT Calculator

The County and Fehr & Peers developed the Project-Level VMT Calculator to help assess a project's VMT. The VMT Calculator incorporates screening criteria, thresholds of significance, mitigation measures, and data from the SBCAG RTDM.

Planners or applicants enter the project type, location, size, zoning, and other key information into the VMT Calculator. The VMT Calculator uses this information to estimate the project's VMT. It then determines whether the project would meet or exceed the applicable threshold of significance. The VMT Calculator can also estimate the effectiveness of possible mitigation measures if the project would exceed the threshold of significance. The County periodically updates the VMT Calculator to use the most up-to-date version of the SBCAG RTDM.

The VMT Calculator can analyze land-use projects that are smaller than one TAZ. However, it does not have the capability to analyze large, complex, and/or unique projects, such as a community plan update,

⁴ Daily includes: AM, Late AM, Lunch, Early PM, PM, Evening, Late Evening, and Night Time.

key site rezone and entitlements, a regionally serving retail project, or a regional-serving community center or agricultural processing facility. Such projects will require a VMT transportation study.

Baseline Environmental Setting

Environmental documents must typically describe the physical setting, or baseline, as it exists when a lead agency publishes a notice of preparation (NOP), or if a lead agency does not publish a NOP, when it commences the environmental review process. To calculate county VMT for every year until 2040, the County interpolated between the SBCAG RTDM's 2010 base year and 2040 future year VMT forecasts to establish specific county VMT values for each year.

VMT Metrics

CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(2) describe the criteria for analyzing transportation impacts for two types of projects: (1) land use projects and (2) transportation projects. The criteria for land use projects may also apply to land use plans. This section summarizes the VMT methodology and metrics for land use projects, such as the proposed project.

The SBCAG RTDM uses an origin-destination (OD) VMT methodology to estimate the VMT of land use projects and plans. The OD VMT methodology estimates the VMT generated by land uses or plans in a defined geographic area, such as the unincorporated county or a specific project site. The SBCAG RTDM estimates OD VMT by tracking all vehicles traveling to and from a defined geographic area and calculating the number of trips and length of those trips to estimate VMT.

State climate-change legislation typically expresses greenhouse gas emissions reduction targets as a quantitative or absolute numeric threshold. For example, SB 32 (2016) requires "that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030." However, these targets do not translate directly into VMT thresholds of significance for individual projects. Therefore, the OPR Technical Advisory recommends that agencies assess a project's VMT impacts using an efficiency metric (e.g., per resident, per employee, or per service population) rather than a quantitative or absolute numeric threshold. The County estimates VMT for land use projects and plans using the following metrics.

- **Total VMT:** VMT generated by all land uses in a defined geographic area. Total VMT reflects all vehicle-trips (passenger and commercial vehicles) assigned on the roadway network. The County applies this metric to retail projects and the cumulative analysis for land use plans.
- **Total VMT per Service Population:** VMT generated by all land uses in a defined geographic area divided by the total number of residents and total number of employees in the geographic area. VMT per service population reflects all vehicle-trips (passenger and commercial vehicles) assigned on the roadway network. The County applies this metric to land use plans.
- **Home-based VMT per Resident:** VMT generated from travel between residents' homes and other destinations, such as work, school, or household errands, in a defined geographic area divided by the total number of residents in the geographic area. This metric excludes trips between two non-residential locations, such as from the store to the coffee shop. Home-based VMT per resident reflects all passenger vehicles (cars and light duty trucks) assigned on the roadway network. The County applies this metric to residential projects.
- **Home-based work VMT per Employee:** VMT generated from travel between employees' homes and work in a defined geographic area divided by the number of employees in the geographic area. Home-based work VMT per employee reflects all passenger vehicles (cars and light duty trucks) assigned on the roadway network. The County applies this metric to employment projects.

2. Analyzing and Mitigating VMT

CEQA Guidelines Section 15064.3 and threshold “b” establish VMT as the most appropriate measure of transportation impacts under CEQA. The following subsections outline a three-step process for determining the significance of VMT impacts and, if necessary, mitigating significant VMT impacts.

Step 1: Project Screening

Many agencies use “screening criteria” to identify projects that would result in less than significant VMT impacts without conducting detailed VMT analyses and studies. The OPR Technical Advisory contains screening criteria for land use and transportation projects. The County uses these screening criteria. The OPR Technical Advisory does not include screening criteria for land use plans. Therefore, the analysis of land use plans must begin with Step 2, below.

The County presumes that land use or transportation projects meeting any of the screening criteria, absent substantial evidence to the contrary, would have less than significant VMT impacts and would not require further analysis. A single-component project (e.g., residence, office, or store) only needs to meet one of the screening criteria. However, each component of a multiple-component project (e.g., residential/retail mixed-use development) must meet at least one applicable screening criterion that relates to each specific land use.

Projects that do not meet any of the screening criteria require an analysis of VMT and a VMT transportation study. Such projects must proceed to Step 2, below.

Land Use Projects Screening Criteria

Table 17 lists the screening criteria for land use projects. The table contains a separate row and columns that list each project type and the applicable screening criterion.

Table 17 Screening Criteria for Land Use Projects

Screening Categories	Project Requirements to Meet Screening Criteria
Small Projects	A project that generates 110 or fewer average daily trips. ¹
Locally Serving Retail	A project that has locally serving retail uses that are 50,000 square feet or less, such as specialty retail, shopping center, grocery/food store, bank/financial facilities, fitness center, restaurant, or café. If a project also contains a non-locally serving retail use(s), that use(s) must meet other applicable screening criteria.
Projects Located in a VMT Efficient Area	A residential or office project that is located in an area that is already 15 percent below the county VMT (i.e., “VMT efficient area”). The County’s Project-Level VMT Calculator determines whether a proposed residential or office project is located within a VMT efficient area.
Projects near Major Transit Stop	A project that is located within a ½ mile of a major transit stop or within a ½ mile of a bus stop on a high-quality transit corridor (HQTC). A major transit stop is a rail station or a bus stop with two or more intersecting bus routes with service frequency of 15 minutes or less during peak commute periods. A HQTC is a corridor with fixed route bus service with frequency of 15 minutes or less during peak commute periods. However, these screening criteria do not apply if project-specific or location-specific information indicates the project will still generate significant levels of VMT. Therefore, in addition to the screening criteria listed above, the project should also have the following characteristics: <ul style="list-style-type: none"> - Floor area ratio (FAR) of 0.75 or greater; - Consistent with the applicable SBCAG Sustainable Communities Strategy (as determined by the County);

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	<ul style="list-style-type: none"> - Does not provide more parking than required by the County's Comprehensive Plan and zoning ordinances; and - Does not replace affordable housing units (units set aside for very low income² and low income households³) with a smaller number of moderate or high-income housing units.
Affordable Housing	A residential project that provides 100 percent affordable housing units (units set aside for very low income and low income households); if part of a larger development, only those units that meet the definition of affordable housing satisfy the screening criteria.
<p>¹ The County calculates a project's daily trips using the latest version of the Trip Generation Manual (Institute of Transportation Engineers) or locally valid trip rates approved by the County Public Works Department. Land uses with irregular or seasonal trip making characteristics, such as wineries or special event centers, should apply an annual average daily trip rate and provide a trip generation memo explaining how the project meets the screening criteria for small projects.</p> <p>² As referenced in California Government Code Section 65584(f)(2) and defined in California Health and Safety Code Section 50079.5(a), "'Very low income households' means persons and families whose incomes do not exceed the qualifying limits for very low income families as established and amended from time to time pursuant to Section 8 of the United States Housing Act of 1937. ... In the event the federal standards are discontinued, the department shall, by regulation, establish income limits for very low income households for all geographic areas of the state at 50 percent of area median income, adjusted for family size and revised annually."</p> <p>³ As referenced in California Government Code Section 65584(f)(2) and defined in California Health and Safety Code Section 50079.5(a), "'Lower income households' means persons and families whose income does not exceed the qualifying limits for lower income families as established and amended from time to time pursuant to Section 8 of the United States Housing Act of 1937. ... In the event the federal standards are discontinued, the department shall, by regulation, establish income limits for lower income households for all geographic areas of the state at 80 percent of area median income, adjusted for family size and revised annually."</p>	

Step 2: Thresholds of Significance for Impact Analysis

The County generally uses thresholds of significance to determine the significance of transportation impacts for projects and plans that do not meet any of the screening criteria in Table 17. The subsections below present separate VMT thresholds for land use projects, land use plans, and transportation projects. The County expresses thresholds of significance in relation to existing, or baseline, county VMT. Specifically, the County compares the existing, or baseline, county VMT (i.e., pre-construction) to a project's VMT. Projects with VMT below the applicable threshold would normally result in a less than significant VMT impact and, therefore, would not require further analyses or studies. Nonetheless, CEQA Guidelines Section 15064(b)(2) states, "Compliance with the threshold does not relieve a lead agency of the obligation to consider substantial evidence indicating that the project's environmental effects may still be significant." Projects with a VMT above the applicable threshold would normally result in a significant VMT impact and, therefore, would require further analyses and studies, and, if necessary, project modifications or mitigation measures as discussed in Step 3, below. The VMT thresholds of significance are for general use and should apply to most projects subject to environmental review. However, the thresholds may not be appropriate for unique projects. In such cases, CEQA Guidelines Section 15064.7(c) allows the County to use other thresholds "... on a case-by-case basis as provided in Section 15064(b)(2)." When using thresholds on a case-by-case basis, the County will need substantial evidence to justify why different thresholds are appropriate. It will also need to explain how non-compliance or compliance with these thresholds means that a project would result in significant or less than significant VMT impacts, respectively.

The OPR Technical Advisory recommended thresholds of significance for land use projects. The County adopted these same thresholds. For land use project types other than residential, employment, regional retail, and mixed-used projects (e.g., school, sports or entertainment facility, park), the County will apply an absolute VMT threshold (e.g., total VMT or total roadway VMT) or efficiency-based VMT threshold (e.g., home-based VMT per resident, home-based work VMT per employee, or total VMT per service population). The applicable threshold will depend on the project's characteristics, including whether the project is locally or regionally serving. For projects that

generally produce job-related travel (i.e., employment), the analysis can compare the project's VMT (i.e., home-based work VMT per employee) to existing county VMT. For projects that serve the region, the analysis can compare the project's total VMT to existing VMT, or compare the project's net increase in total VMT to the study area VMT.

Cumulative Impacts

CEQA requires lead agencies to consider a project's individual and cumulative impacts. Specifically, CEQA Guidelines Section 15064(h)(1) states, "the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable."⁵ The County typically uses one of two methods to determine whether a project's

VMT impact is cumulatively considerable. As explained below, one method is for projects subject to an efficiency-based threshold of significance. The County generally uses efficiency-based thresholds of significance (i.e., per resident, per employee, and per service population) to analyze most land use project's VMT impacts. Consistent with the OPR Technical Advisory (page 6), a land use project that falls below the applicable efficiency-based threshold of significance would not have a VMT impact that is cumulatively considerable. Projects that are under the County's efficiency-based impact thresholds are already shown to align with long-term environmental goals to reduce VMT. As a result, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa. The Project-Level VMT Calculator provides the information necessary for this analysis.

Step 3: Potential Mitigation Measures

Projects and plans that exceed the thresholds of significance in Step 2 require project modifications or mitigation measures to avoid or reduce VMT impacts to a less-than-significant level (i.e., below the applicable threshold of significance). As discussed above, the VMT Calculator contains and, therefore, can help applicants assess the effectiveness of possible mitigation measures.

Mitigation measures may not always reduce a project's VMT impacts to a less-than-significant level. In such cases, CEQA Guidelines Section 15093 requires decision makers to make a statement of overriding considerations in order to approve the project or plan.

VMT related mitigation measures focus on reducing the number of single-occupant vehicle trips generated by the project or reducing the distance of those trips. The following strategies can help reduce VMT:

- Modify the project's site design or land use characteristics to reduce VMT generated by the project. This can include increasing/decreasing density, introducing a mix of uses, clustering development, or making site design improvements such as sidewalks, bikeways, transit stop enhancements, and/or priority carpool parking.
- Implement TDM to reduce VMT generated by the project. TDM strategies are vehicle trip reductions made through project site modifications, programming, and operational changes. This can include on-going programs such as transit coordinators, transit pass subsidies, and/or shuttle programs.
- Apply any future programmatic mitigation mechanisms, where applicable, such as VMT mitigation banks, exchanges, and/or fee programs.

Applicants should tailor mitigation measures to a project's characteristics and potential impacts. They also must present substantial evidence to support any conclusions regarding whether the mitigation measures would reduce the impacts to less than significant or whether the impacts would remain

⁵ CEQA Guidelines Section 15064(h)(1) states (in pertinent part): "Cumulatively considerable' means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

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significant and unavoidable. If the project will rely on programmatic mitigation measures, the applicant must show with substantial evidence how participation in the program will mitigate project-generated VMT.

- c. **Design Features and Hazards.** Threshold “c” considers whether a project would increase roadway hazards. An increase could result from existing or proposed uses or geometric design features. In part, the analysis should review these and other relevant factors and identify results that conflict with the County’s Engineering Design Standards or other applicable roadway standards. For example, the analysis may consider the following criteria:

- Project requires a driveway that would not meet site distance requirements, including vehicle queuing and visibility of pedestrians and bicyclists.
- Project adds a new traffic signal or results in a major revision to an existing intersection that would not meet the County’s Engineering Design Standards.
- Project adds substantial traffic to a roadway with poor design features (e.g., narrow width, roadside ditches, sharp curves, poor sight distance, inadequate pavement structure).
- Project introduces a new use and substantial traffic that would create potential safety problems on an existing road network (e.g., rural roads with use by farm equipment, livestock, horseback riding, or residential roads with heavy pedestrian or recreational use).

If a project would result in potential roadway hazards, the applicant would need to modify the project or identify mitigation measures that would eliminate or reduce the potential hazards. For example, an applicant for a retail shopping center may need to shift the location of a new driveway or add sidewalks or pedestrian crossings to reduce potential conflicts between customers and pedestrians.

- d. **Emergency Access.** Threshold “d” considers any changes to emergency access resulting from a project. To identify potential impacts, the analysis must review any proposed roadway design changes and determine if they would potentially impede emergency access vehicles.

A project that would result in inadequate emergency vehicle access would have a significant transportation impact and, as a result, would require project modifications or mitigation measures. For example, a project that modifies a street and, as a result, impairs fire truck access, would require modifications or redesign to comply with County and fire department road development standards.

Impact Discussion:

- a. **No impact.** No sidewalks or bicycle lanes currently exist on the project site. However, Class II-designated bicycle lanes exist in each direction on the segment of Union Valley Parkway along the southern boundary of the project site, and there is a sidewalk along the eastbound lane of Union Valley Parkway fronting the project site. Sidewalks are present along both lanes of Brookside Avenue, which terminates at the eastern boundary of the project site. There are no existing transit routes within the vicinity of the project site. The proposed project would involve construction two new driveways connecting Union Valley Parkway to the proposed fire station and one new driveway connecting the west end of Brookside Avenue to the new fire station. Short-term construction staging would be compliant with the County’s Engineering Design Standards, which would minimize conflicts with pedestrians, bicyclists, and motorized vehicles on Union Valley Parkway and Brookside Avenue. Additionally, the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities. Therefore, no impact would occur.
- b. **No impact.** Transportation projects have the potential to change travel patterns. A key consideration under CEQA Guidelines Section 15064.3(b)(2) is whether a project would add additional vehicle

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travel onto a roadway network or induce VMT. According to the California Office of Planning and Research's (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA, the screening threshold for "small projects" that generally may be assumed to cause a less-than-significant transportation impact is: a project that generates or attracts fewer than 110 trips per day (OPR 2018). The proposed project includes a fire station, which would generate VMT as employees drive to and from the project site for their shifts and as fire engines and emergency vehicles respond to calls. According to the Institute of Transportation Engineers' Trip Generation Handbook, 10th edition, fire and rescue station land uses have an average trip generation rate of 0.48 afternoon peak hour trips (Institute of Transportation Engineers 2017). Using an industry standards assumption that peak hour traffic is 10 percent of average daily traffic, the average daily trip rate is 4.8 trips per 1,000 s.f. of gross floor area. Accordingly, the proposed project would generate approximately 41 average daily trips (4.8 trips per thousand s.f. x 8.6 thousand s.f.), which would not exceed the screening level of 110 trips per day for VMT impacts. Impacts would be less than significant.

- c. **No impact.** The projects proposes two new driveways connecting to Union Valley Parkway, a two-lane arterial with a posted speed limit of 45 miles per hour. The Caltrans Highway Design Manual establishes minimum stopping sight distances for various posted roadway speeds to ensure vehicles entering the roadway can be seen from a safe distance by oncoming traffic. According to Table 201.1 in the Caltrans Highway Design Manual, the minimum stopping sight distance for design speeds of 45 miles per hour is 360 feet (Caltrans 2020). The stopping sight distance available for westbound traffic on Union Valley Parkway would be at least 360 feet; therefore, the design of the two driveways would be compliant with the Caltrans minimum stopping sight distance for a two-lane roadway. Furthermore, the proposed project would be required to be designed in accordance with the requirements of the County's Engineering Design Standards (2011). Therefore, the project would not substantially increase hazards due to a geometric design feature or incompatible uses, and no impact would occur.
- d. **No impact.** The project would not affect emergency access in the project area. Additionally, the project would improve emergency access in the project area as it would result in another fire station in the Orcutt community. Therefore, no impact related to inadequate emergency access would occur.

Cumulative Impacts:

As discussed above, implementation of the proposed project would not result in any substantial change to transportation in the area. Thus, the proposed project would not contribute to any cumulatively considerable effects to transportation.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required.

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4.15 WATER RESOURCES/FLOODING

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters?				✓	
b. Changes in percolation rates, drainage patterns or the rate and amount of surface water runoff?		✓			
c. Change in the amount of surface water in any water body?		✓			
d. Discharge, directly or through a storm drain system, into surface waters (including but not limited to wetlands, riparian areas, ponds, springs, creeks, streams, rivers, lakes, estuaries, tidal areas, bays, ocean, etc.) or alteration of surface water quality, including but not limited to temperature, dissolved oxygen, turbidity, or thermal water pollution?		✓			
e. Alterations to the course or flow of flood water or need for private or public flood control projects?				✓	
f. Exposure of people or property to water related hazards such as flooding (placement of project in 100-year flood plain), accelerated runoff or tsunamis, sea level rise, or seawater intrusion?				✓	
g. Alteration of the direction or rate of flow of groundwater?			✓		
h. Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or recharge interference?			✓		
i. Overdraft or over-commitment of any groundwater basin? Or, a significant increase in the existing overdraft or over-commitment of any groundwater basin?			✓		
j. The substantial degradation of groundwater quality including saltwater intrusion?		✓			
k. Substantial reduction in the amount of water otherwise available for public water supplies?			✓		
l. Introduction of storm water pollutants (e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) into groundwater or surface water?		✓			

Existing Setting:

The proposed project would be located on undeveloped and vacant land. Currently, there is a culvert that has been mapped along the northeastern corner of the project site.

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No mapped, permanent surface water bodies exist on the project site (USGS 2021). The project site is underlain by the Santa Maria River Valley groundwater basin, which has been given a draft basin prioritization of “very low” by the California Department of Water Resources (California Department of Water Resources 2021).

The site is not located within the 100-year floodplain or within a tsunami inundation zone (Federal Emergency Management Agency [FEMA] 2005; DOC 2021d).

County Environmental Thresholds:

Water Resources

A project may have a significant effect on water resources if it would exceed established threshold values that have been set for each over-drafted groundwater basin. These values were determined based on an estimation of a basin’s remaining life of available water storage. If the project’s net new consumptive water use (total consumptive demand adjusted for recharge less discontinued historic use) exceeds the threshold adopted for the basin, the project’s impacts on water resources are considered significant. A project is also deemed to have a significant effect on water resources if a net increase in pumpage from a well would substantially affect production or quality from a nearby well.

Water Quality

The County Environmental Thresholds (2021a) state a significant impact on water quality may occur if the project involves any of the following:

- Is located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;
- Increases the amount of impervious surfaces on a site by 25 percent or more;
- Results in channelization or relocation of a natural drainage channel;
- Results in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands;
- Is an industrial facility that falls under one or more of categories of industrial activity regulated under the National Pollutant Discharge Elimination System (NPDES) Phase I industrial storm water regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; recycling facilities; steam electric plants; transportation facilities; treatment works; and light industrial activity);
- Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the RWQCB’s Basin Plan or otherwise impairs the beneficial uses¹ of a receiving water body;
- Results in a discharge of pollutants into an “impaired” water body that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303(d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act); or
- Results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.

Impact Discussion:

- a. **No impact.** The proposed project would not require construction in rivers, creeks, or estuaries. Therefore, the project would not result in changes in currents or in the course or direction of water movements in either marine or fresh waters, and no impact would occur.

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b, c, d, j, l. **Less than significant with mitigation.** Construction of the project has the potential to result in stormwater runoff with degraded water quality primarily due to erosion and accidental releases of oil, fuels, lubricants, or coolants. However, the project would be constructed in accordance with mandatory federal, State, and local laws, policies, and regulations, which would require implementation of a project-specific SWPPP that would address erosion, sediment discharge, and water quality and pollution control during all phases of construction through implementation of BMPs. Therefore, short-term construction impacts to surface water runoff and quality as well as groundwater quality would be less than significant.

During operation, stormwater runoff associated with the project would potentially contain pollutants associated with fire engines, such as fuels and oils, as well as the use of herbicides and pesticides for landscape maintenance. The proposed project would also increase the amount of impervious surfaces on the project site, which would potentially increase the amount of surface runoff and pollutants discharged off site as less water would infiltrate into the ground. The project would be required to comply with the requirements of the Phase II MS4 Permit (*Waste Discharge Requirements [WDRs] for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems [MS4s] General Permit*), Order No. 2013-0001-DWQ, NPDES No. CAS000004 or most current) and the Central Coast Regional Water Quality Control Board's *Post-Construction Stormwater Management Requirements (PCRs) for Development Projects in the Central Coast Region* (Resolution R3-2013-0032 or most current). The project is anticipated to create more than 22,500 s.f. (0.52 acre) of impervious surface area and would therefore be required to implement a Stormwater Control Plan that complies with the requirements of the PCRs. The Stormwater Control Plan would specify the operational BMPs that would be incorporated into the project to achieve the following requirements:

- Implement Low Impact Development (LID) Measures to:
 - Limit disturbance of natural drainage features
 - Limit clearing, grading, and soil compaction
 - Minimize impervious surfaces
 - Minimize runoff by dispersing runoff to landscape or using permeable pavements
- Treat runoff with an approved and appropriately sized LID treatment system prior to discharge from the site
- Prevent discharge from events up the 95th percentile event using Stormwater Control Measures
- Control peak flows to not exceed pre-project flows for the 2-year through 10-year events.

As a Condition of Project Approval, Project Clean Water staff of the County Public Works Department Water Resources Division would review the Stormwater Control Plan to ensure it complies with the requirements the PCRs. The County Fire Department would be responsible for long-term maintenance of the BMPs. The operational BMPs would capture, treat, and reduce stormwater runoff and associated pollutants of concern in prior to discharge from the project site. Compliance with the Central Coast RWQCB's post-construction stormwater management requirements, including implementation of a post-construction stormwater control plan and operational BMPs, would ensure potential impacts would be less than significant.

e. **No impact.** The project would not be located in the 100-year floodplain and would therefore not result in alterations to the course or flow of flood water (FEMA 2005). Therefore, the project would not result in alterations to the course or flow of flood water or the need for private or public flood control projects. No impact would occur.

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- f. **No impact.** The project site is not located in the 100-year floodplain or in a tsunami inundation zone (FEMA 2005; DOC 2021d). Furthermore, the site is located approximately 12 miles inland from the Pacific Ocean. Therefore, the project would not expose people or property to water-related hazards such as flooding, accelerated runoff, tsunamis, sea level rise, or seawater intrusion. No impact would occur.
- g, h. **Less than significant.** The maximum soil cut during grading for the proposed project would be 10 feet, and according to the California Department of Water Resources, the Santa Maria Groundwater Basin has well depths ranging from 16 to 1,220 feet with an average well depth of 281 feet (California Department of Water Resources 2004). Furthermore, the nearest well is located about 1.2 miles from the project site and has a well depth of 331 feet. Therefore, the proposed project would likely not require dewatering during construction. During operation, the fire station would receive its water from Golden State Water Company, sourced from the Santa Maria Groundwater Basin. The Golden State Water Company's 2020 Urban Water Management Plan (2021) indicates the water supplier for the project site will have enough water to meet the proposed fire station's demand through its buildout year (2045). In addition, the project would not include subsurface components that could alter the direction of groundwater flow. Therefore, impacts related to alteration of the direction or rate of flow of groundwater and changes in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or recharge interference would be less than significant.
- i, k. **Less than significant.** Although the project would incrementally increase the amount of impervious surfaces on the project site, impervious surfaces on the project site after construction would represent minimal interference with groundwater recharge as the project would preserve approximately 40 percent of the site in an undisturbed state that would allow stormwater runoff to continue recharging the underlying groundwater basin. Furthermore, the extent of the proposed project would be relatively small given the large expanses of land along the Sisquoc River east of the project site that are available for groundwater recharge. Therefore, the project would not result in the overdraft or over-commitment of a groundwater basin. In addition, according to estimations from CalEEMod, the estimated water use of the fire station would be approximately 7.4 acre-feet per year (AFY), which is below the 25 AFY groundwater threshold applied to the Santa Maria Groundwater Basin. Furthermore, the proposed project would not require dewatering during construction or permanent groundwater withdrawal during operation. Therefore, the project would not result in a substantial reduction in the amount of water otherwise available for public water supplies. Impacts would be less than significant.

Cumulative Impacts:

The County Environmental Thresholds (2021a) were developed, in part, to define the point at which a project's contribution to a regionally significant impact constitutes a significant effect at the project level. In this instance, the project has been found not to exceed the threshold of significance for water resources with implementation of Mitigation Measure Wat-01. Therefore, the project's contribution to the regionally significant issues of water supplies and water quality is not cumulatively considerable.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required.

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5.1 COUNTY DEPARTMENTS CONSULTED

Police, Fire, Public Works, Flood Control, Parks, Environmental Health, Special Districts, Regional Programs, Other: _____

5.2 COMPREHENSIVE PLAN

<u> X </u>	Seismic Safety/Safety Element	<u> X </u>	Conservation Element
<u> X </u>	Agricultural Element	<u> X </u>	Noise Element
<u> X </u>	Land Use Element	<u> X </u>	Circulation Element
<u> </u>	ERME	<u> X </u>	Orcutt Community Plan
<u> X </u>	Energy Element	<u> X </u>	Scenic Highways Element

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5.3 OTHER SOURCES

<u> X </u>	Field work	<u> X </u>	Ag Preserve maps
<u> X </u>	Calculations	<u> X </u>	Flood Control maps
<u> X </u>	Project plans	<u> X </u>	Other technical references
<u> X </u>	Traffic studies		(reports, survey, etc.)
<u> X </u>	Records	<u> X </u>	Planning files, maps, reports
<u> </u>	Grading plans	<u> X </u>	Zoning maps
<u> </u>	Elevation, architectural renderings	<u> X </u>	Soils maps/reports
<u> X </u>	Published geological map/reports	<u> X </u>	Plant maps
<u> X </u>	Topographical maps	<u> X </u>	Archaeological maps and reports
		<u> </u>	Other
		<u> </u>	
		<u> </u>	

6.0 PROJECT SPECIFIC (*Short- and Long-Term*) AND CUMULATIVE IMPACT SUMMARY

6.1 SIGNIFICANT UNAVOIDABLE IMPACTS

The proposed project would not result in any significant and unavoidable impacts.

6.2 SIGNIFICANT BUT MITIGABLE IMPACTS

The proposed project may result in the following significant impacts; however, implementation of the identified mitigation measures would reduce impacts to a less-than-significant level.

Air Quality. The project may result in the following impacts, which would be mitigated by Mitigation Measure Air-01:

- The violation of any ambient air quality standard, a substantial contribution to an existing or projected air quality violation, or exposure of sensitive receptors to substantial pollutant concentrations (emissions from direct, indirect, mobile and stationary sources).
- Extensive dust generation.

Biological Resources. The project may result in in the following impacts, which would be mitigated by Mitigation Measures Bio-01 through Bio-04:

- The loss of healthy at least one native specimen tree.
- A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals.
- A reduction in the diversity or numbers of animals on-site (including mammals, birds, reptiles, amphibians, fish, or invertebrates).
- A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.).

Noise. The project may result in the following impact, which would be mitigated by Mitigation Measure N-01:

- Short-term exposure of people to noise levels exceeding County thresholds.

Water Resources/Flooding. The project may result in the following impacts, which would be mitigated by Mitigation Measure Wat-01:

- Changes in percolation rates, drainage patterns or the rate and amount of surface water runoff.
- Change in the amount of surface water in any water body.
- Discharge, directly or through a storm drain system, into surface waters (including but not limited to wetlands, riparian areas, ponds, springs, creeks, streams, rivers, lakes, estuaries, tidal areas, bays, ocean, etc.) or alteration of surface water quality, including but not limited to temperature, dissolved oxygen, turbidity, or thermal water pollution.
- The substantial degradation of groundwater quality including saltwater intrusion.
- Introduction of storm water pollutants (e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) into groundwater or surface water.

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6.3 CUMULATIVE IMPACTS

Cumulative impacts are defined as two or more individual effects which, when considered together are considerable, or which compound or increase other environmental impacts. Under Section 15064 of the CEQA Guidelines, the lead agency (County of Santa Barbara) must identify cumulative impacts, determine their significance and determine if the effects of the project are cumulatively considerable. Cumulative impacts have been addressed under each issue area. As discussed therein, the proposed project would not result in cumulatively considerable contributions to cumulative impacts.

7.0 MANDATORY FINDINGS OF SIGNIFICANCE

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
1. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, contribute significantly to greenhouse gas emissions or significantly increase energy consumption, or eliminate important examples of the major periods of California history or prehistory?		✓			
2. Does the project have the potential to achieve short-term to the disadvantage of long-term environmental goals?				✓	
3. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects.)			✓		
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		✓			
5. Is there disagreement supported by facts, reasonable assumptions predicated upon facts and/or expert opinion supported by facts over the significance of an effect which would warrant investigation in an EIR ?				✓	

1. **Less than significant with mitigation.** The project does not have the potential to substantially degrade the quality of the environment. As discussed in Section 4.4, *Biological Resources*, the project does not have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal with the implementation of mitigation measures. As discussed in Section 4.3b, *Air Quality – Greenhouse Gas Emissions*, and Section 4.6, *Energy*, the project would not contribute significantly to GHG emissions or significantly increase energy consumption. In addition, as discussed in Section 4.5, *Cultural Resources*, the project would not eliminate important examples of the major periods of California history or prehistory. Therefore, the proposed project would result in a less-than-significant impact after implementation of the mitigation measures in Section 4.4, *Biological Resources*.

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2. **No impact.** The project involves the construction and operation of a fire station in the community of Orcutt. The project does not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. No impact would occur.
3. **Less than significant.** As discussed in Sections 4.1 through 4.15, the project would result in impacts that are individually limited to the project site and the portion of land between the project site and Union Valley Parkway (related to the two proposed driveways along the roadway) but are not cumulatively considerable. This impact would be less than significant.
4. **Less than significant with mitigation.** In general, impacts to human beings are associated with such issues as air quality, hazards and hazardous materials, and noise impacts. As detailed in Section 4.3a, *Air Quality*, Section 4.9, *Hazardous Materials/Risk of Upset*, and Section 4.11, *Noise*, construction of the proposed project would have the potential to generate extensive dust; however, the project would not expose workers and the public to hazardous materials or result in short- or long-term exposure of people to high noise levels with implementation of Mitigation Measure N-01. Therefore, impacts to human beings would be potentially significant related to extensive dust. With implementation of Mitigation Measure Air-01, which requires implementation of the County's and SBCAPCD's dust control measures, and Mitigation Measure N-01, which would ensure construction noise levels would not exceed the County's noise threshold of 65 CNEL at residential properties, potential impacts would be reduced to a less-than-significant level. Therefore, impacts to human beings would be less than significant with mitigation incorporated under the proposed project.
5. **No impact.** There is no known disagreement supported by facts or any reasonable assumptions predicated upon facts and/or expert opinion supported by facts over the significance of an effect which would warrant investigation in an EIR.

Mitigation and Residual Impact:

The proposed project could result in potentially significant impacts related to human beings related to extensive dust. With implementation of Mitigation Measure Air-01, potential impacts would be reduced to a less-than-significant level.

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8.0 PROJECT ALTERNATIVES

Pursuant to CEQA, project alternatives are only required for projects which would result in significant and immitigable impacts to the environment. Any potentially significant impacts resulting from the proposed fire station could be mitigated to less than significant impacts. Therefore, no project alternatives were considered.

9.0 INITIAL REVIEW OF PROJECT CONSISTENCY WITH APPLICABLE SUBDIVISION, ZONING AND COMPREHENSIVE PLAN REQUIREMENTS

Zoning

The proposed project is consistent with the requirements of the County's Land Use and Development Code. The proposed project would not change existing land use designations or zoning. The existing Design Residential (DR-3.3) zoning of the project site allows for fire stations provided that the applicable permit (e.g., Land Use Permit or Minor Conditional Use Permit) is obtained.

Comprehensive Plan

The project would be subject to all applicable requirements and policies of the County's Comprehensive Plan, including the Orcutt Community Plan. This analysis will be provided in the forthcoming staff report. These policies include but are not limited to the following:

1. Hillside and Watershed Protection Policies 1 through 7
2. Historical and Archaeological Policies 5
3. Energy Element Policy 1.3
4. Orcutt Community Plan and Key Site 27 policies and development standards

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10.0 RECOMMENDATION BY SANTA BARBARA COUNTY FIRE PROTECTION DISTRICT STAFF

On the basis of the Initial Study, the staff of the Fire Protection District:

~~Finds that the proposed project WILL NOT have a significant effect on the environment and, therefore, recommends that a Negative Declaration (ND) be prepared.~~

Finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures incorporated into the REVISED PROJECT DESCRIPTION would successfully mitigate the potentially significant impacts. Staff recommends the preparation of an ND. The ND finding is based on the assumption that mitigation measures will be acceptable to the project proponent; if not acceptable a revised Initial Study finding for the preparation of an EIR may result.

~~Finds that the proposed project MAY have a significant effect on the environment, and recommends that an EIR be prepared.~~

~~Finds that from existing documents (previous EIRs, etc.) that a subsequent document (containing updated and site-specific information, etc.) pursuant to CEQA Sections 15162/15163/15164 should be prepared.~~

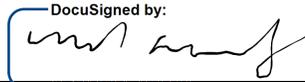
~~Potentially significant unavoidable adverse impact areas:~~

~~With Public Hearing~~

Without Public Hearing

PREVIOUS DOCUMENT:

PROJECT EVALUATOR:

DocuSigned by:

8215A8CEBAD34C0...

11/18/2021 | 7:31 PM PST

DATE:

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11.0 DETERMINATION BY ENVIRONMENTAL HEARING OFFICER

I agree with staff conclusions. Preparation of the appropriate document may proceed.

~~I DO NOT agree with staff conclusions. The following actions will be taken:~~

~~I require consultation and further information prior to making my determination.~~

SIGNATURE: DocuSigned by:
Lisa Plowman
84A1F2CF48D248C...

INITIAL STUDY DATE: October 1, 2021

NEGATIVE DECLARATION DATE: October 1, 2021

REVISION DATE: November 9, 2021

FINAL NEGATIVE DECLARATION DATE: November 17, 2021

12.0 ATTACHMENTS

- A. CalEEMod Outputs
- B. Biological Resources Assessment
- C. Cultural Resources Technical Study
- D. Energy Calculation Sheets
- E. Phase I Environmental Site Assessment
- F. Phase II Environmental Site Assessment
- G. Noise Calculations
- H. Public Review Period Comment Letter and Response
- I. Mitigation Monitoring and Reporting Program

Attachment A

CalEEMod Outputs

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Annual

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

Orcutt Fire Station Project - AQ
Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	8.60	1000sqft	2.35	8,600.00	0
Parking Lot	15.00	Space	0.13	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	37
Climate Zone	4			Operational Year	2029
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Start of Construction based on applicant response - "begin in summer 2027"

Land Use - Square footage of Fire Station and parking spaces given from applicant.

Construction Phase - Based off the applicant informaiton. Preliminary construction for grading and site preparation for 4 months and 12-14 months of building construction.

Off-road Equipment -

Trips and VMT -

Grading -

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

Architectural Coating - Based on SBCAPCD Architectural Coating Rule 323.1

Vehicle Trips - Trips generation rates for the fire station land use.

Area Coating - Based on SBCAPCD Architectural Coating Rule 323.1

Construction Off-road Equipment Mitigation - SBCAPCD Rule 345 - Control of Fugitive Dust From Construction and Demolition Activities

Area Mitigation - Based on SBCAPCD Rule 323.1

Water Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - Proposed use of a standard emergency diesel generator. operational assurance testing of the generator for 0.5 hour/week and two 2-hour test/year (30 total hours for testing)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	25.00
tblConstructionPhase	NumDays	220.00	262.00
tblConstructionPhase	NumDays	6.00	43.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	3.00	43.00
tblLandUse	LotAcreage	0.20	2.35
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.50
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	WD_TR	33.98	4.80

2.0 Emissions Summary

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Annual

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

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	0.0845	0.7827	0.7049	1.5800e-003	0.1899	0.0303	0.2201	0.0782	0.0283	0.1065	0.0000	135.9369	135.9369	0.0364	1.8000e-004	136.9005
2028	0.2080	1.4065	1.6819	3.0100e-003	8.6300e-003	0.0554	0.0640	2.2900e-003	0.0529	0.0552	0.0000	252.2537	252.2537	0.0472	6.4000e-004	253.6244
2029	6.8600e-003	2.2900e-003	3.6500e-003	1.0000e-005	1.0000e-005	1.0000e-004	1.2000e-004	0.0000	1.0000e-004	1.1000e-004	0.0000	0.5190	0.5190	3.0000e-005	0.0000	0.5198
Maximum	0.2080	1.4065	1.6819	3.0100e-003	0.1899	0.0554	0.2201	0.0782	0.0529	0.1065	0.0000	252.2537	252.2537	0.0472	6.4000e-004	253.6244

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	0.0845	0.7827	0.7049	1.5800e-003	0.0873	0.0303	0.1176	0.0357	0.0283	0.0640	0.0000	135.9367	135.9367	0.0364	1.8000e-004	136.9003
2028	0.2080	1.4065	1.6819	3.0100e-003	8.6300e-003	0.0554	0.0640	2.2900e-003	0.0529	0.0552	0.0000	252.2534	252.2534	0.0472	6.4000e-004	253.6241
2029	6.8600e-003	2.2900e-003	3.6500e-003	1.0000e-005	1.0000e-005	1.0000e-004	1.2000e-004	0.0000	1.0000e-004	1.1000e-004	0.0000	0.5190	0.5190	3.0000e-005	0.0000	0.5198
Maximum	0.2080	1.4065	1.6819	3.0100e-003	0.0873	0.0554	0.1176	0.0357	0.0529	0.0640	0.0000	252.2534	252.2534	0.0472	6.4000e-004	253.6241

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	51.68	0.00	36.08	52.82	0.00	26.29	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2027	9-30-2027	0.4151	0.4151
2	10-1-2027	12-31-2027	0.4478	0.4478
3	1-1-2028	3-31-2028	0.4426	0.4426
4	4-1-2028	6-30-2028	0.4425	0.4425
5	7-1-2028	9-30-2028	0.4473	0.4473
6	10-1-2028	12-31-2028	0.2888	0.2888
7	1-1-2029	3-31-2029	0.0065	0.0065
		Highest	0.4478	0.4478

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Annual

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Energy	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	21.2912	21.2912	2.3800e-003	4.1000e-004	21.4724
Mobile	9.4700e-003	9.4900e-003	0.0719	1.3000e-004	0.0151	1.0000e-004	0.0152	4.0500e-003	9.0000e-005	4.1400e-003	0.0000	12.1786	12.1786	1.0000e-003	7.0000e-004	12.4113
Stationary	4.9500e-003	0.0138	0.0126	2.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	2.2962	2.2962	3.2000e-004	0.0000	2.3043
Waste						0.0000	0.0000		0.0000	0.0000	10.1797	0.0000	10.1797	0.5048	0.0000	22.7991
Water						0.0000	0.0000		0.0000	0.0000	0.6045	1.1944	1.7989	2.2700e-003	1.3400e-003	2.2544
Total	0.0532	0.0302	0.0905	1.9000e-004	0.0151	1.3500e-003	0.0165	4.0500e-003	1.3400e-003	5.3900e-003	10.7841	36.9609	47.7450	0.5108	2.4500e-003	61.2419

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Energy	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	21.2912	21.2912	2.3800e-003	4.1000e-004	21.4724
Mobile	9.4700e-003	9.4900e-003	0.0719	1.3000e-004	0.0151	1.0000e-004	0.0152	4.0500e-003	9.0000e-005	4.1400e-003	0.0000	12.1786	12.1786	1.0000e-003	7.0000e-004	12.4113
Stationary	4.9500e-003	0.0138	0.0126	2.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	2.2962	2.2962	3.2000e-004	0.0000	2.3043
Waste						0.0000	0.0000		0.0000	0.0000	10.1797	0.0000	10.1797	0.5048	0.0000	22.7991
Water						0.0000	0.0000		0.0000	0.0000	0.4836	1.0234	1.5069	1.8300e-003	1.0700e-003	1.8720
Total	0.0532	0.0302	0.0905	1.9000e-004	0.0151	1.3500e-003	0.0165	4.0500e-003	1.3400e-003	5.3900e-003	10.6632	36.7898	47.4530	0.5103	2.1800e-003	60.8595

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12	0.46	0.61	0.09	11.02	0.62

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2027	8/30/2027	5	43	
2	Grading	Grading	8/31/2027	10/28/2027	5	43	

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3	Building Construction	Building Construction	10/29/2027	10/30/2028	5	262
4	Paving	Paving	10/31/2028	11/30/2028	5	23
5	Architectural Coating	Architectural Coating	12/1/2028	1/4/2029	5	25

Acres of Grading (Site Preparation Phase): 64.5

Acres of Grading (Grading Phase): 43

Acres of Paving: 0.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 12,900; Non-Residential Outdoor: 4,300; Striped Parking Area: 360 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	5.00	2.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0342	0.0000	0.0342	3.6900e-003	0.0000	3.6900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0236	0.2364	0.1919	5.3000e-004		8.8000e-003	8.8000e-003		8.1000e-003	8.1000e-003	0.0000	46.2780	46.2780	0.0150	0.0000	46.6522
Total	0.0236	0.2364	0.1919	5.3000e-004	0.0342	8.8000e-003	0.0430	3.6900e-003	8.1000e-003	0.0118	0.0000	46.2780	46.2780	0.0150	0.0000	46.6522

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3.2 Site Preparation - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.1000e-004	2.5600e-003	1.0000e-005	1.0600e-003	0.0000	1.0700e-003	2.8000e-004	0.0000	2.9000e-004	0.0000	0.7460	0.7460	2.0000e-005	2.0000e-005	0.7530
Total	3.5000e-004	2.1000e-004	2.5600e-003	1.0000e-005	1.0600e-003	0.0000	1.0700e-003	2.8000e-004	0.0000	2.9000e-004	0.0000	0.7460	0.7460	2.0000e-005	2.0000e-005	0.7530

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0154	0.0000	0.0154	1.6600e-003	0.0000	1.6600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0236	0.2364	0.1919	5.3000e-004		8.8000e-003	8.8000e-003		8.1000e-003	8.1000e-003	0.0000	46.2779	46.2779	0.0150	0.0000	46.6521
Total	0.0236	0.2364	0.1919	5.3000e-004	0.0154	8.8000e-003	0.0242	1.6600e-003	8.1000e-003	9.7600e-003	0.0000	46.2779	46.2779	0.0150	0.0000	46.6521

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3.2 Site Preparation - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.1000e-004	2.5600e-003	1.0000e-005	1.0600e-003	0.0000	1.0700e-003	2.8000e-004	0.0000	2.9000e-004	0.0000	0.7460	0.7460	2.0000e-005	2.0000e-005	0.7530
Total	3.5000e-004	2.1000e-004	2.5600e-003	1.0000e-005	1.0600e-003	0.0000	1.0700e-003	2.8000e-004	0.0000	2.9000e-004	0.0000	0.7460	0.7460	2.0000e-005	2.0000e-005	0.7530

3.3 Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1523	0.0000	0.1523	0.0736	0.0000	0.0736	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0256	0.2671	0.1826	4.4000e-004		0.0107	0.0107		9.8100e-003	9.8100e-003	0.0000	38.9270	38.9270	0.0126	0.0000	39.2417
Total	0.0256	0.2671	0.1826	4.4000e-004	0.1523	0.0107	0.1630	0.0736	9.8100e-003	0.0834	0.0000	38.9270	38.9270	0.0126	0.0000	39.2417

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3.3 Grading - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.3300e-003	1.0000e-005	1.3300e-003	3.5000e-004	0.0000	3.6000e-004	0.0000	0.9326	0.9326	3.0000e-005	3.0000e-005	0.9413
Total	4.3000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.3300e-003	1.0000e-005	1.3300e-003	3.5000e-004	0.0000	3.6000e-004	0.0000	0.9326	0.9326	3.0000e-005	3.0000e-005	0.9413

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0685	0.0000	0.0685	0.0331	0.0000	0.0331	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0256	0.2671	0.1826	4.4000e-004		0.0107	0.0107		9.8100e-003	9.8100e-003	0.0000	38.9269	38.9269	0.0126	0.0000	39.2417
Total	0.0256	0.2671	0.1826	4.4000e-004	0.0685	0.0107	0.0792	0.0331	9.8100e-003	0.0429	0.0000	38.9269	38.9269	0.0126	0.0000	39.2417

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3.3 Grading - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.3300e-003	1.0000e-005	1.3300e-003	3.5000e-004	0.0000	3.6000e-004	0.0000	0.9326	0.9326	3.0000e-005	3.0000e-005	0.9413
Total	4.3000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.3300e-003	1.0000e-005	1.3300e-003	3.5000e-004	0.0000	3.6000e-004	0.0000	0.9326	0.9326	3.0000e-005	3.0000e-005	0.9413

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.2765	0.3222	5.8000e-004		0.0108	0.0108		0.0104	0.0104	0.0000	47.7791	47.7791	8.7600e-003	0.0000	47.9982
Total	0.0343	0.2765	0.3222	5.8000e-004		0.0108	0.0108		0.0104	0.0104	0.0000	47.7791	47.7791	8.7600e-003	0.0000	47.9982

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3.4 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	2.0500e-003	6.9000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7754	0.7754	4.0000e-005	1.1000e-004	0.8106
Worker	2.3000e-004	1.4000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.4988	0.4988	1.0000e-005	1.0000e-005	0.5035
Total	2.8000e-004	2.1900e-003	2.4000e-003	2.0000e-005	9.8000e-004	1.0000e-005	9.9000e-004	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	1.2742	1.2742	5.0000e-005	1.2000e-004	1.3141

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.2765	0.3222	5.8000e-004		0.0108	0.0108		0.0104	0.0104	0.0000	47.7791	47.7791	8.7600e-003	0.0000	47.9981
Total	0.0343	0.2765	0.3222	5.8000e-004		0.0108	0.0108		0.0104	0.0104	0.0000	47.7791	47.7791	8.7600e-003	0.0000	47.9981

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3.4 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	2.0500e-003	6.9000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7754	0.7754	4.0000e-005	1.1000e-004	0.8106
Worker	2.3000e-004	1.4000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.4988	0.4988	1.0000e-005	1.0000e-005	0.5035
Total	2.8000e-004	2.1900e-003	2.4000e-003	2.0000e-005	9.8000e-004	1.0000e-005	9.9000e-004	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	1.2742	1.2742	5.0000e-005	1.2000e-004	1.3141

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1609	1.2985	1.5128	2.7000e-003		0.0508	0.0508		0.0486	0.0486	0.0000	224.3541	224.3541	0.0412	0.0000	225.3828
Total	0.1609	1.2985	1.5128	2.7000e-003		0.0508	0.0508		0.0486	0.0486	0.0000	224.3541	224.3541	0.0412	0.0000	225.3828

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3.4 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	9.4300e-003	3.1900e-003	4.0000e-005	1.2600e-003	5.0000e-005	1.3100e-003	3.6000e-004	5.0000e-005	4.1000e-004	0.0000	3.5707	3.5707	1.9000e-004	5.3000e-004	3.7332
Worker	1.0400e-003	6.0000e-004	7.6600e-003	2.0000e-005	3.3400e-003	1.0000e-005	3.3500e-003	8.9000e-004	1.0000e-005	9.0000e-004	0.0000	2.2963	2.2963	6.0000e-005	6.0000e-005	2.3171
Total	1.2600e-003	0.0100	0.0109	6.0000e-005	4.6000e-003	6.0000e-005	4.6600e-003	1.2500e-003	6.0000e-005	1.3100e-003	0.0000	5.8670	5.8670	2.5000e-004	5.9000e-004	6.0504

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1609	1.2985	1.5128	2.7000e-003		0.0508	0.0508		0.0486	0.0486	0.0000	224.3539	224.3539	0.0412	0.0000	225.3825
Total	0.1609	1.2985	1.5128	2.7000e-003		0.0508	0.0508		0.0486	0.0486	0.0000	224.3539	224.3539	0.0412	0.0000	225.3825

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3.4 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	9.4300e-003	3.1900e-003	4.0000e-005	1.2600e-003	5.0000e-005	1.3100e-003	3.6000e-004	5.0000e-005	4.1000e-004	0.0000	3.5707	3.5707	1.9000e-004	5.3000e-004	3.7332
Worker	1.0400e-003	6.0000e-004	7.6600e-003	2.0000e-005	3.3400e-003	1.0000e-005	3.3500e-003	8.9000e-004	1.0000e-005	9.0000e-004	0.0000	2.2963	2.2963	6.0000e-005	6.0000e-005	2.3171
Total	1.2600e-003	0.0100	0.0109	6.0000e-005	4.6000e-003	6.0000e-005	4.6600e-003	1.2500e-003	6.0000e-005	1.3100e-003	0.0000	5.8670	5.8670	2.5000e-004	5.9000e-004	6.0504

3.5 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.0300e-003	0.0855	0.1343	2.1000e-004		4.0300e-003	4.0300e-003		3.7200e-003	3.7200e-003	0.0000	17.8399	17.8399	5.6500e-003	0.0000	17.9812
Paving	1.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.2000e-003	0.0855	0.1343	2.1000e-004		4.0300e-003	4.0300e-003		3.7200e-003	3.7200e-003	0.0000	17.8399	17.8399	5.6500e-003	0.0000	17.9812

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3.5 Paving - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	3.8000e-004	4.9000e-003	2.0000e-005	3.9800e-003	1.0000e-005	3.9800e-003	1.0200e-003	1.0000e-005	1.0300e-003	0.0000	1.4671	1.4671	4.0000e-005	4.0000e-005	1.4804
Total	6.6000e-004	3.8000e-004	4.9000e-003	2.0000e-005	3.9800e-003	1.0000e-005	3.9800e-003	1.0200e-003	1.0000e-005	1.0300e-003	0.0000	1.4671	1.4671	4.0000e-005	4.0000e-005	1.4804

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.0300e-003	0.0855	0.1343	2.1000e-004		4.0300e-003	4.0300e-003		3.7200e-003	3.7200e-003	0.0000	17.8398	17.8398	5.6500e-003	0.0000	17.9812
Paving	1.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.2000e-003	0.0855	0.1343	2.1000e-004		4.0300e-003	4.0300e-003		3.7200e-003	3.7200e-003	0.0000	17.8398	17.8398	5.6500e-003	0.0000	17.9812

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3.5 Paving - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	3.8000e-004	4.9000e-003	2.0000e-005	3.9800e-003	1.0000e-005	3.9800e-003	1.0200e-003	1.0000e-005	1.0300e-003	0.0000	1.4671	1.4671	4.0000e-005	4.0000e-005	1.4804
Total	6.6000e-004	3.8000e-004	4.9000e-003	2.0000e-005	3.9800e-003	1.0000e-005	3.9800e-003	1.0200e-003	1.0000e-005	1.0300e-003	0.0000	1.4671	1.4671	4.0000e-005	4.0000e-005	1.4804

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7900e-003	0.0120	0.0190	3.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6846
Total	0.0360	0.0120	0.0190	3.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6846

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3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0451
Total	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0451

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7900e-003	0.0120	0.0190	3.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6846
Total	0.0360	0.0120	0.0190	3.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6846

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3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0451
Total	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0451

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	2.2900e-003	3.6200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.5107	0.5107	3.0000e-005	0.0000	0.5114
Total	6.8500e-003	2.2900e-003	3.6200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.5107	0.5107	3.0000e-005	0.0000	0.5114

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3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.3500e-003	8.3500e-003	0.0000	0.0000	8.4200e-003
Total	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.3500e-003	8.3500e-003	0.0000	0.0000	8.4200e-003

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	2.2900e-003	3.6200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.5107	0.5107	3.0000e-005	0.0000	0.5114
Total	6.8500e-003	2.2900e-003	3.6200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.5107	0.5107	3.0000e-005	0.0000	0.5114

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3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.3500e-003	8.3500e-003	0.0000	0.0000	8.4200e-003
Total	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.3500e-003	8.3500e-003	0.0000	0.0000	8.4200e-003

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.4700e-003	9.4900e-003	0.0719	1.3000e-004	0.0151	1.0000e-004	0.0152	4.0500e-003	9.0000e-005	4.1400e-003	0.0000	12.1786	12.1786	1.0000e-003	7.0000e-004	12.4113
Unmitigated	9.4700e-003	9.4900e-003	0.0719	1.3000e-004	0.0151	1.0000e-004	0.0152	4.0500e-003	9.0000e-005	4.1400e-003	0.0000	12.1786	12.1786	1.0000e-003	7.0000e-004	12.4113

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government (Civic Center)	41.28	0.00	0.00	40,167	40,167
Parking Lot	0.00	0.00	0.00		
Total	41.28	0.00	0.00	40,167	40,167

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Government (Civic Center)	6.60	5.50	6.40	75.00	20.00	5.00	50	34	16
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government (Civic Center)	0.512325	0.057014	0.206318	0.140374	0.024305	0.006187	0.011219	0.006234	0.000948	0.000543	0.028133	0.003250	0.003150
Parking Lot	0.512325	0.057014	0.206318	0.140374	0.024305	0.006187	0.011219	0.006234	0.000948	0.000543	0.028133	0.003250	0.003150

5.0 Energy Detail

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Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	13.8566	13.8566	2.2400e-003	2.7000e-004	13.9936
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	13.8566	13.8566	2.2400e-003	2.7000e-004	13.9936
Natural Gas Mitigated	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788
Natural Gas Unmitigated	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Government (Civic Center)	139320	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Government (Civic Center)	139320	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government (Civic Center)	147662	13.6623	2.2100e-003	2.7000e-004	13.7973
Parking Lot	2100	0.1943	3.0000e-005	0.0000	0.1962
Total		13.8566	2.2400e-003	2.7000e-004	13.9936

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government (Civic Center)	147662	13.6623	2.2100e-003	2.7000e-004	13.7973
Parking Lot	2100	0.1943	3.0000e-005	0.0000	0.1962
Total		13.8566	2.2400e-003	2.7000e-004	13.9936

6.0 Area Detail

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Unmitigated	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0340					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Total	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0340					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Total	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.5069	1.8300e-003	1.0700e-003	1.8720
Unmitigated	1.7989	2.2700e-003	1.3400e-003	2.2544

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government (Civic Center)	1.70847 / 1.04713	1.7989	2.2700e-003	1.3400e-003	2.2544
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.7989	2.2700e-003	1.3400e-003	2.2544

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government (Civic Center)	1.36678 / 1.04713	1.5069	1.8300e-003	1.0700e-003	1.8720
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.5069	1.8300e-003	1.0700e-003	1.8720

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.1797	0.5048	0.0000	22.7991
Unmitigated	10.1797	0.5048	0.0000	22.7991

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government (Civic Center)	49.02	10.1797	0.5048	0.0000	22.7991
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		10.1797	0.5048	0.0000	22.7991

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government (Civic Center)	49.02	10.1797	0.5048	0.0000	22.7991
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		10.1797	0.5048	0.0000	22.7991

9.0 Operational Offroad

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

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	30	201	0.73	Diesel

Boilers

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

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	4.9500e-003	0.0138	0.0126	2.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	2.2962	2.2962	3.2000e-004	0.0000	2.3043
Total	4.9500e-003	0.0138	0.0126	2.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	2.2962	2.2962	3.2000e-004	0.0000	2.3043

11.0 Vegetation

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

**Orcutt Fire Station Project - GHG
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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	8.60	1000sqft	2.35	8,600.00	0
Parking Lot	15.00	Space	0.13	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	37
Climate Zone	4			Operational Year	2030
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	114.11	CH4 Intensity (lb/MWhr)	0.018	N2O Intensity (lb/MWhr)	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted for 2030 RPS. Start of Construction based on applicant response - "begin in summer 2027"

Land Use - Square footage of Fire Station and parking spaces given from applicant.

Construction Phase - Based off the applicant informaiton. Preliminary construction for grading and site preparation for 4 months and 12-14 months of building construction.

Off-road Equipment -

Trips and VMT -

Grading -

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

Architectural Coating - Based on SBCAPCD Architectural Coating Rule 323.1

Vehicle Trips - Vehicle Trip rate for fire station

Area Coating - Based on SBCAPCD Architectural Coating Rule 323.1

Construction Off-road Equipment Mitigation - SBCAPCD Rule 345 - Control of Fugitive Dust From Construction and Demolition Activities

Area Mitigation - Based on SBCAPCD Rule 323.1

Water Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - Proposed use of a standard emergency diesel generator. operational assurance testing of the generator for 0.5 hour/week and two 2-hour test/year (30 total hours for testing)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	25.00
tblConstructionPhase	NumDays	220.00	262.00
tblConstructionPhase	NumDays	6.00	43.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	3.00	43.00
tblLandUse	LotAcreage	0.20	2.35
tblProjectCharacteristics	CH4IntensityFactor	0.033	0.018
tblProjectCharacteristics	CO2IntensityFactor	203.98	114.11
tblProjectCharacteristics	N2OIntensityFactor	0.004	0.002
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.50
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00

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

tblVehicleTrips	WD_TR	33.98	4.80
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2.0 Emissions Summary

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	0.0845	0.7827	0.7049	1.5800e-003	0.1899	0.0303	0.2201	0.0782	0.0283	0.1065	0.0000	135.9369	135.9369	0.0364	1.8000e-004	136.9005
2028	0.2080	1.4065	1.6819	3.0100e-003	8.6300e-003	0.0554	0.0640	2.2900e-003	0.0529	0.0552	0.0000	252.2537	252.2537	0.0472	6.4000e-004	253.6244
2029	6.8600e-003	2.2900e-003	3.6500e-003	1.0000e-005	1.0000e-005	1.0000e-004	1.2000e-004	0.0000	1.0000e-004	1.1000e-004	0.0000	0.5190	0.5190	3.0000e-005	0.0000	0.5198
Maximum	0.2080	1.4065	1.6819	3.0100e-003	0.1899	0.0554	0.2201	0.0782	0.0529	0.1065	0.0000	252.2537	252.2537	0.0472	6.4000e-004	253.6244

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	0.0845	0.7827	0.7049	1.5800e-003	0.0873	0.0303	0.1176	0.0357	0.0283	0.0640	0.0000	135.9367	135.9367	0.0364	1.8000e-004	136.9003
2028	0.2080	1.4065	1.6819	3.0100e-003	8.6300e-003	0.0554	0.0640	2.2900e-003	0.0529	0.0552	0.0000	252.2534	252.2534	0.0472	6.4000e-004	253.6241
2029	6.8600e-003	2.2900e-003	3.6500e-003	1.0000e-005	1.0000e-005	1.0000e-004	1.2000e-004	0.0000	1.0000e-004	1.1000e-004	0.0000	0.5190	0.5190	3.0000e-005	0.0000	0.5198
Maximum	0.2080	1.4065	1.6819	3.0100e-003	0.0873	0.0554	0.1176	0.0357	0.0529	0.0640	0.0000	252.2534	252.2534	0.0472	6.4000e-004	253.6241

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	51.68	0.00	36.08	52.82	0.00	26.29	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2027	9-30-2027	0.4151	0.4151
2	10-1-2027	12-31-2027	0.4478	0.4478
3	1-1-2028	3-31-2028	0.4426	0.4426
4	4-1-2028	6-30-2028	0.4425	0.4425
5	7-1-2028	9-30-2028	0.4473	0.4473
6	10-1-2028	12-31-2028	0.2888	0.2888
7	1-1-2029	3-31-2029	0.0065	0.0065
		Highest	0.4478	0.4478

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Energy	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	15.1862	15.1862	1.3700e-003	2.7000e-004	15.3015
Mobile	9.0400e-003	9.0300e-003	0.0696	1.2000e-004	0.0151	9.0000e-005	0.0152	4.0500e-003	9.0000e-005	4.1300e-003	0.0000	11.9355	11.9355	9.6000e-004	6.8000e-004	12.1607
Stationary	4.9500e-003	0.0138	0.0126	2.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	2.2962	2.2962	3.2000e-004	0.0000	2.3043
Waste						0.0000	0.0000		0.0000	0.0000	10.1797	0.0000	10.1797	0.5048	0.0000	22.7991
Water						0.0000	0.0000		0.0000	0.0000	0.6045	0.6682	1.2727	2.1900e-003	1.3300e-003	1.7225
Total	0.0528	0.0297	0.0882	1.8000e-004	0.0151	1.3400e-003	0.0165	4.0500e-003	1.3400e-003	5.3800e-003	10.7841	30.0866	40.8707	0.5096	2.2800e-003	54.2885

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Energy	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	15.1862	15.1862	1.3700e-003	2.7000e-004	15.3015
Mobile	9.0400e-003	9.0300e-003	0.0696	1.2000e-004	0.0151	9.0000e-005	0.0152	4.0500e-003	9.0000e-005	4.1300e-003	0.0000	11.9355	11.9355	9.6000e-004	6.8000e-004	12.1607
Stationary	4.9500e-003	0.0138	0.0126	2.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	2.2962	2.2962	3.2000e-004	0.0000	2.3043
Waste						0.0000	0.0000		0.0000	0.0000	10.1797	0.0000	10.1797	0.5048	0.0000	22.7991
Water						0.0000	0.0000		0.0000	0.0000	0.4836	0.5725	1.0561	1.7500e-003	1.0600e-003	1.4163
Total	0.0528	0.0297	0.0882	1.8000e-004	0.0151	1.3400e-003	0.0165	4.0500e-003	1.3400e-003	5.3800e-003	10.6632	29.9909	40.6541	0.5092	2.0100e-003	53.9822

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12	0.32	0.53	0.09	11.84	0.56

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2027	8/30/2027	5	43	
2	Grading	Grading	8/31/2027	10/28/2027	5	43	

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3	Building Construction	Building Construction	10/29/2027	10/30/2028	5	262
4	Paving	Paving	10/31/2028	11/30/2028	5	23
5	Architectural Coating	Architectural Coating	12/1/2028	1/4/2029	5	25

Acres of Grading (Site Preparation Phase): 64.5

Acres of Grading (Grading Phase): 43

Acres of Paving: 0.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 12,900; Non-Residential Outdoor: 4,300; Striped Parking Area: 360 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	5.00	2.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0342	0.0000	0.0342	3.6900e-003	0.0000	3.6900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0236	0.2364	0.1919	5.3000e-004		8.8000e-003	8.8000e-003		8.1000e-003	8.1000e-003	0.0000	46.2780	46.2780	0.0150	0.0000	46.6522
Total	0.0236	0.2364	0.1919	5.3000e-004	0.0342	8.8000e-003	0.0430	3.6900e-003	8.1000e-003	0.0118	0.0000	46.2780	46.2780	0.0150	0.0000	46.6522

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

3.2 Site Preparation - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.1000e-004	2.5600e-003	1.0000e-005	1.0600e-003	0.0000	1.0700e-003	2.8000e-004	0.0000	2.9000e-004	0.0000	0.7460	0.7460	2.0000e-005	2.0000e-005	0.7530
Total	3.5000e-004	2.1000e-004	2.5600e-003	1.0000e-005	1.0600e-003	0.0000	1.0700e-003	2.8000e-004	0.0000	2.9000e-004	0.0000	0.7460	0.7460	2.0000e-005	2.0000e-005	0.7530

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0154	0.0000	0.0154	1.6600e-003	0.0000	1.6600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0236	0.2364	0.1919	5.3000e-004		8.8000e-003	8.8000e-003		8.1000e-003	8.1000e-003	0.0000	46.2779	46.2779	0.0150	0.0000	46.6521
Total	0.0236	0.2364	0.1919	5.3000e-004	0.0154	8.8000e-003	0.0242	1.6600e-003	8.1000e-003	9.7600e-003	0.0000	46.2779	46.2779	0.0150	0.0000	46.6521

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3.2 Site Preparation - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.1000e-004	2.5600e-003	1.0000e-005	1.0600e-003	0.0000	1.0700e-003	2.8000e-004	0.0000	2.9000e-004	0.0000	0.7460	0.7460	2.0000e-005	2.0000e-005	0.7530
Total	3.5000e-004	2.1000e-004	2.5600e-003	1.0000e-005	1.0600e-003	0.0000	1.0700e-003	2.8000e-004	0.0000	2.9000e-004	0.0000	0.7460	0.7460	2.0000e-005	2.0000e-005	0.7530

3.3 Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1523	0.0000	0.1523	0.0736	0.0000	0.0736	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0256	0.2671	0.1826	4.4000e-004		0.0107	0.0107		9.8100e-003	9.8100e-003	0.0000	38.9270	38.9270	0.0126	0.0000	39.2417
Total	0.0256	0.2671	0.1826	4.4000e-004	0.1523	0.0107	0.1630	0.0736	9.8100e-003	0.0834	0.0000	38.9270	38.9270	0.0126	0.0000	39.2417

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3.3 Grading - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.3300e-003	1.0000e-005	1.3300e-003	3.5000e-004	0.0000	3.6000e-004	0.0000	0.9326	0.9326	3.0000e-005	3.0000e-005	0.9413
Total	4.3000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.3300e-003	1.0000e-005	1.3300e-003	3.5000e-004	0.0000	3.6000e-004	0.0000	0.9326	0.9326	3.0000e-005	3.0000e-005	0.9413

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0685	0.0000	0.0685	0.0331	0.0000	0.0331	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0256	0.2671	0.1826	4.4000e-004		0.0107	0.0107		9.8100e-003	9.8100e-003	0.0000	38.9269	38.9269	0.0126	0.0000	39.2417
Total	0.0256	0.2671	0.1826	4.4000e-004	0.0685	0.0107	0.0792	0.0331	9.8100e-003	0.0429	0.0000	38.9269	38.9269	0.0126	0.0000	39.2417

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3.3 Grading - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.3300e-003	1.0000e-005	1.3300e-003	3.5000e-004	0.0000	3.6000e-004	0.0000	0.9326	0.9326	3.0000e-005	3.0000e-005	0.9413
Total	4.3000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.3300e-003	1.0000e-005	1.3300e-003	3.5000e-004	0.0000	3.6000e-004	0.0000	0.9326	0.9326	3.0000e-005	3.0000e-005	0.9413

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.2765	0.3222	5.8000e-004		0.0108	0.0108		0.0104	0.0104	0.0000	47.7791	47.7791	8.7600e-003	0.0000	47.9982
Total	0.0343	0.2765	0.3222	5.8000e-004		0.0108	0.0108		0.0104	0.0104	0.0000	47.7791	47.7791	8.7600e-003	0.0000	47.9982

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3.4 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	2.0500e-003	6.9000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7754	0.7754	4.0000e-005	1.1000e-004	0.8106
Worker	2.3000e-004	1.4000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.4988	0.4988	1.0000e-005	1.0000e-005	0.5035
Total	2.8000e-004	2.1900e-003	2.4000e-003	2.0000e-005	9.8000e-004	1.0000e-005	9.9000e-004	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	1.2742	1.2742	5.0000e-005	1.2000e-004	1.3141

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.2765	0.3222	5.8000e-004		0.0108	0.0108		0.0104	0.0104	0.0000	47.7791	47.7791	8.7600e-003	0.0000	47.9981
Total	0.0343	0.2765	0.3222	5.8000e-004		0.0108	0.0108		0.0104	0.0104	0.0000	47.7791	47.7791	8.7600e-003	0.0000	47.9981

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3.4 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	2.0500e-003	6.9000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7754	0.7754	4.0000e-005	1.1000e-004	0.8106
Worker	2.3000e-004	1.4000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.4988	0.4988	1.0000e-005	1.0000e-005	0.5035
Total	2.8000e-004	2.1900e-003	2.4000e-003	2.0000e-005	9.8000e-004	1.0000e-005	9.9000e-004	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	1.2742	1.2742	5.0000e-005	1.2000e-004	1.3141

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1609	1.2985	1.5128	2.7000e-003		0.0508	0.0508		0.0486	0.0486	0.0000	224.3541	224.3541	0.0412	0.0000	225.3828
Total	0.1609	1.2985	1.5128	2.7000e-003		0.0508	0.0508		0.0486	0.0486	0.0000	224.3541	224.3541	0.0412	0.0000	225.3828

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3.4 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	9.4300e-003	3.1900e-003	4.0000e-005	1.2600e-003	5.0000e-005	1.3100e-003	3.6000e-004	5.0000e-005	4.1000e-004	0.0000	3.5707	3.5707	1.9000e-004	5.3000e-004	3.7332
Worker	1.0400e-003	6.0000e-004	7.6600e-003	2.0000e-005	3.3400e-003	1.0000e-005	3.3500e-003	8.9000e-004	1.0000e-005	9.0000e-004	0.0000	2.2963	2.2963	6.0000e-005	6.0000e-005	2.3171
Total	1.2600e-003	0.0100	0.0109	6.0000e-005	4.6000e-003	6.0000e-005	4.6600e-003	1.2500e-003	6.0000e-005	1.3100e-003	0.0000	5.8670	5.8670	2.5000e-004	5.9000e-004	6.0504

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1609	1.2985	1.5128	2.7000e-003		0.0508	0.0508		0.0486	0.0486	0.0000	224.3539	224.3539	0.0412	0.0000	225.3825
Total	0.1609	1.2985	1.5128	2.7000e-003		0.0508	0.0508		0.0486	0.0486	0.0000	224.3539	224.3539	0.0412	0.0000	225.3825

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3.4 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	9.4300e-003	3.1900e-003	4.0000e-005	1.2600e-003	5.0000e-005	1.3100e-003	3.6000e-004	5.0000e-005	4.1000e-004	0.0000	3.5707	3.5707	1.9000e-004	5.3000e-004	3.7332
Worker	1.0400e-003	6.0000e-004	7.6600e-003	2.0000e-005	3.3400e-003	1.0000e-005	3.3500e-003	8.9000e-004	1.0000e-005	9.0000e-004	0.0000	2.2963	2.2963	6.0000e-005	6.0000e-005	2.3171
Total	1.2600e-003	0.0100	0.0109	6.0000e-005	4.6000e-003	6.0000e-005	4.6600e-003	1.2500e-003	6.0000e-005	1.3100e-003	0.0000	5.8670	5.8670	2.5000e-004	5.9000e-004	6.0504

3.5 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.0300e-003	0.0855	0.1343	2.1000e-004		4.0300e-003	4.0300e-003		3.7200e-003	3.7200e-003	0.0000	17.8399	17.8399	5.6500e-003	0.0000	17.9812
Paving	1.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.2000e-003	0.0855	0.1343	2.1000e-004		4.0300e-003	4.0300e-003		3.7200e-003	3.7200e-003	0.0000	17.8399	17.8399	5.6500e-003	0.0000	17.9812

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3.5 Paving - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	3.8000e-004	4.9000e-003	2.0000e-005	3.9800e-003	1.0000e-005	3.9800e-003	1.0200e-003	1.0000e-005	1.0300e-003	0.0000	1.4671	1.4671	4.0000e-005	4.0000e-005	1.4804
Total	6.6000e-004	3.8000e-004	4.9000e-003	2.0000e-005	3.9800e-003	1.0000e-005	3.9800e-003	1.0200e-003	1.0000e-005	1.0300e-003	0.0000	1.4671	1.4671	4.0000e-005	4.0000e-005	1.4804

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.0300e-003	0.0855	0.1343	2.1000e-004		4.0300e-003	4.0300e-003		3.7200e-003	3.7200e-003	0.0000	17.8398	17.8398	5.6500e-003	0.0000	17.9812
Paving	1.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.2000e-003	0.0855	0.1343	2.1000e-004		4.0300e-003	4.0300e-003		3.7200e-003	3.7200e-003	0.0000	17.8398	17.8398	5.6500e-003	0.0000	17.9812

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3.5 Paving - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	3.8000e-004	4.9000e-003	2.0000e-005	3.9800e-003	1.0000e-005	3.9800e-003	1.0200e-003	1.0000e-005	1.0300e-003	0.0000	1.4671	1.4671	4.0000e-005	4.0000e-005	1.4804
Total	6.6000e-004	3.8000e-004	4.9000e-003	2.0000e-005	3.9800e-003	1.0000e-005	3.9800e-003	1.0200e-003	1.0000e-005	1.0300e-003	0.0000	1.4671	1.4671	4.0000e-005	4.0000e-005	1.4804

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7900e-003	0.0120	0.0190	3.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6846
Total	0.0360	0.0120	0.0190	3.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6846

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3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0451
Total	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0451

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7900e-003	0.0120	0.0190	3.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6846
Total	0.0360	0.0120	0.0190	3.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6846

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3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0451
Total	2.0000e-005	1.0000e-005	1.5000e-004	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0451

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	2.2900e-003	3.6200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.5107	0.5107	3.0000e-005	0.0000	0.5114
Total	6.8500e-003	2.2900e-003	3.6200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.5107	0.5107	3.0000e-005	0.0000	0.5114

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3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.3500e-003	8.3500e-003	0.0000	0.0000	8.4200e-003
Total	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.3500e-003	8.3500e-003	0.0000	0.0000	8.4200e-003

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	2.2900e-003	3.6200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.5107	0.5107	3.0000e-005	0.0000	0.5114
Total	6.8500e-003	2.2900e-003	3.6200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.5107	0.5107	3.0000e-005	0.0000	0.5114

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3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.3500e-003	8.3500e-003	0.0000	0.0000	8.4200e-003
Total	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.3500e-003	8.3500e-003	0.0000	0.0000	8.4200e-003

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.0400e-003	9.0300e-003	0.0696	1.2000e-004	0.0151	9.0000e-005	0.0152	4.0500e-003	9.0000e-005	4.1300e-003	0.0000	11.9355	11.9355	9.6000e-004	6.8000e-004	12.1607
Unmitigated	9.0400e-003	9.0300e-003	0.0696	1.2000e-004	0.0151	9.0000e-005	0.0152	4.0500e-003	9.0000e-005	4.1300e-003	0.0000	11.9355	11.9355	9.6000e-004	6.8000e-004	12.1607

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government (Civic Center)	41.28	0.00	0.00	40,167	40,167
Parking Lot	0.00	0.00	0.00		
Total	41.28	0.00	0.00	40,167	40,167

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Government (Civic Center)	6.60	5.50	6.40	75.00	20.00	5.00	50	34	16
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government (Civic Center)	0.514923	0.057522	0.206064	0.138974	0.023636	0.006062	0.011219	0.006223	0.000940	0.000535	0.027699	0.003185	0.003017
Parking Lot	0.514923	0.057522	0.206064	0.138974	0.023636	0.006062	0.011219	0.006223	0.000940	0.000535	0.027699	0.003185	0.003017

5.0 Energy Detail

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Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.7516	7.7516	1.2200e-003	1.4000e-004	7.8227
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.7516	7.7516	1.2200e-003	1.4000e-004	7.8227
Natural Gas Mitigated	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788
Natural Gas Unmitigated	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Government (Civic Center)	139320	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Government (Civic Center)	139320	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4347	7.4347	1.4000e-004	1.4000e-004	7.4788

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government (Civic Center)	147662	7.6429	1.2100e-003	1.3000e-004	7.7130
Parking Lot	2100	0.1087	2.0000e-005	0.0000	0.1097
Total		7.7516	1.2300e-003	1.3000e-004	7.8227

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government (Civic Center)	147662	7.6429	1.2100e-003	1.3000e-004	7.7130
Parking Lot	2100	0.1087	2.0000e-005	0.0000	0.1097
Total		7.7516	1.2300e-003	1.3000e-004	7.8227

6.0 Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Unmitigated	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0340					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Total	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0340					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Total	0.0381	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.0561	1.7500e-003	1.0600e-003	1.4163
Unmitigated	1.2727	2.1900e-003	1.3300e-003	1.7225

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government (Civic Center)	1.70847 / 1.04713	1.2727	2.1900e-003	1.3300e-003	1.7225
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.2727	2.1900e-003	1.3300e-003	1.7225

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government (Civic Center)	1.36678 / 1.04713	1.0561	1.7500e-003	1.0600e-003	1.4163
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.0561	1.7500e-003	1.0600e-003	1.4163

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.1797	0.5048	0.0000	22.7991
Unmitigated	10.1797	0.5048	0.0000	22.7991

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government (Civic Center)	49.02	10.1797	0.5048	0.0000	22.7991
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		10.1797	0.5048	0.0000	22.7991

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government (Civic Center)	49.02	10.1797	0.5048	0.0000	22.7991
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		10.1797	0.5048	0.0000	22.7991

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	30	201	0.73	Diesel

Boilers

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

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	4.9500e-003	0.0138	0.0126	2.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	2.2962	2.2962	3.2000e-004	0.0000	2.3043
Total	4.9500e-003	0.0138	0.0126	2.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	2.2962	2.2962	3.2000e-004	0.0000	2.3043

11.0 Vegetation

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

Orcutt Fire Station Project - AQ
Santa Barbara County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	8.60	1000sqft	2.35	8,600.00	0
Parking Lot	15.00	Space	0.13	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	37
Climate Zone	4			Operational Year	2029
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Start of Construction based on applicant response - "begin in summer 2027"

Land Use - Square footage of Fire Station and parking spaces given from applicant.

Construction Phase - Based off the applicant informaiton. Preliminary construction for grading and site preparation for 4 months and 12-14 months of building construction.

Off-road Equipment -

Trips and VMT -

Grading -

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

Architectural Coating - Based on SBCAPCD Architectural Coating Rule 323.1

Vehicle Trips - Trips generation rates for the fire station land use.

Area Coating - Based on SBCAPCD Architectural Coating Rule 323.1

Construction Off-road Equipment Mitigation - SBCAPCD Rule 345 - Control of Fugitive Dust From Construction and Demolition Activities

Area Mitigation - Based on SBCAPCD Rule 323.1

Water Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - Proposed use of a standard emergency diesel generator. operational assurance testing of the generator for 0.5 hour/week and two 2-hour test/year (30 total hours for testing)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	25.00
tblConstructionPhase	NumDays	220.00	262.00
tblConstructionPhase	NumDays	6.00	43.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	3.00	43.00
tblLandUse	LotAcreage	0.20	2.35
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.50
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	WD_TR	33.98	4.80

2.0 Emissions Summary

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	1.5018	12.4351	14.1098	0.0256	7.1457	0.4963	7.6421	3.4415	0.4566	3.8981	0.0000	2,411.684 4	2,411.684 4	0.7684	6.1400e- 003	2,431.202 0
2028	3.4284	12.1127	14.1059	0.0256	0.3541	0.4706	0.7050	0.0907	0.4504	0.4622	0.0000	2,350.208 5	2,350.208 5	0.5456	6.0100e- 003	2,362.562 3
2029	3.4283	1.1464	1.8224	3.0100e- 003	6.3200e- 003	0.0515	0.0579	1.6800e- 003	0.0515	0.0532	0.0000	286.1402	286.1402	0.0155	1.2000e- 004	286.5618
Maximum	3.4284	12.4351	14.1098	0.0256	7.1457	0.4963	7.6421	3.4415	0.4566	3.8981	0.0000	2,411.684 4	2,411.684 4	0.7684	6.1400e- 003	2,431.202 0

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	1.5018	12.4351	14.1098	0.0256	3.2503	0.4963	3.7466	1.5579	0.4566	2.0145	0.0000	2,411.684 4	2,411.684 4	0.7684	6.1400e- 003	2,431.202 0
2028	3.4284	12.1127	14.1059	0.0256	0.3541	0.4706	0.7050	0.0907	0.4504	0.4622	0.0000	2,350.208 5	2,350.208 5	0.5456	6.0100e- 003	2,362.562 3
2029	3.4283	1.1464	1.8224	3.0100e- 003	6.3200e- 003	0.0515	0.0579	1.6800e- 003	0.0515	0.0532	0.0000	286.1402	286.1402	0.0155	1.2000e- 004	286.5618
Maximum	3.4284	12.4351	14.1098	0.0256	3.2503	0.4963	3.7466	1.5579	0.4566	2.0145	0.0000	2,411.684 4	2,411.684 4	0.7684	6.1400e- 003	2,431.202 0

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	51.90	0.00	46.35	53.30	0.00	42.68	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.1600e-003	5.1600e-003	1.0000e-005		5.5000e-003
Energy	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726
Mobile	0.0756	0.0683	0.5165	9.8000e-004	0.1190	7.4000e-004	0.1197	0.0318	6.9000e-004	0.0325		104.8300	104.8300	7.9500e-003	5.6600e-003	106.7144
Stationary	0.1649	0.4610	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243		84.3712	84.3712	0.0118		84.6669
Total	0.4534	0.5667	0.9709	1.9900e-003	0.1190	0.0279	0.1468	0.0318	0.0278	0.0596		234.1121	234.1121	0.0207	6.4800e-003	236.5594

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.1600e-003	5.1600e-003	1.0000e-005		5.5000e-003
Energy	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726
Mobile	0.0756	0.0683	0.5165	9.8000e-004	0.1190	7.4000e-004	0.1197	0.0318	6.9000e-004	0.0325		104.8300	104.8300	7.9500e-003	5.6600e-003	106.7144
Stationary	0.1649	0.4610	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243		84.3712	84.3712	0.0118		84.6669
Total	0.4534	0.5667	0.9709	1.9900e-003	0.1190	0.0279	0.1468	0.0318	0.0278	0.0596		234.1121	234.1121	0.0207	6.4800e-003	236.5594

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2027	8/30/2027	5	43	
2	Grading	Grading	8/31/2027	10/28/2027	5	43	
3	Building Construction	Building Construction	10/29/2027	10/30/2028	5	262	
4	Paving	Paving	10/31/2028	11/30/2028	5	23	

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

5	Architectural Coating	Architectural Coating	12/1/2028	1/4/2029	5	25
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Acres of Grading (Site Preparation Phase): 64.5

Acres of Grading (Grading Phase): 43

Acres of Paving: 0.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 12,900; Non-Residential Outdoor: 4,300; Striped Parking Area: 360 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	5.00	2.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.0985	10.9957	8.9257	0.0245		0.4094	0.4094		0.3766	0.3766		2,372.6856	2,372.6856	0.7674		2,391.8700
Total	1.0985	10.9957	8.9257	0.0245	1.5908	0.4094	2.0001	0.1718	0.3766	0.5484		2,372.6856	2,372.6856	0.7674		2,391.8700

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.2 Site Preparation - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0159	8.7000e-003	0.1168	3.7000e-004	0.0505	2.0000e-004	0.0507	0.0134	1.8000e-004	0.0136		38.9988	38.9988	1.0500e-003	1.0300e-003	39.3320
Total	0.0159	8.7000e-003	0.1168	3.7000e-004	0.0505	2.0000e-004	0.0507	0.0134	1.8000e-004	0.0136		38.9988	38.9988	1.0500e-003	1.0300e-003	39.3320

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	1.0985	10.9957	8.9257	0.0245		0.4094	0.4094		0.3766	0.3766	0.0000	2,372.6856	2,372.6856	0.7674		2,391.8700
Total	1.0985	10.9957	8.9257	0.0245	0.7158	0.4094	1.1252	0.0773	0.3766	0.4539	0.0000	2,372.6856	2,372.6856	0.7674		2,391.8700

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.2 Site Preparation - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0159	8.7000e-003	0.1168	3.7000e-004	0.0505	2.0000e-004	0.0507	0.0134	1.8000e-004	0.0136		38.9988	38.9988	1.0500e-003	1.0300e-003	39.3320
Total	0.0159	8.7000e-003	0.1168	3.7000e-004	0.0505	2.0000e-004	0.0507	0.0134	1.8000e-004	0.0136		38.9988	38.9988	1.0500e-003	1.0300e-003	39.3320

3.3 Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564		1,995.7975	1,995.7975	0.6455		2,011.9345
Total	1.1904	12.4243	8.4937	0.0206	7.0826	0.4961	7.5787	3.4247	0.4564	3.8811		1,995.7975	1,995.7975	0.6455		2,011.9345

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.3 Grading - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0199	0.0109	0.1460	4.6000e-004	0.0632	2.5000e-004	0.0634	0.0168	2.3000e-004	0.0170		48.7484	48.7484	1.3100e-003	1.2900e-003	49.1650
Total	0.0199	0.0109	0.1460	4.6000e-004	0.0632	2.5000e-004	0.0634	0.0168	2.3000e-004	0.0170		48.7484	48.7484	1.3100e-003	1.2900e-003	49.1650

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564	0.0000	1,995.7975	1,995.7975	0.6455		2,011.9345
Total	1.1904	12.4243	8.4937	0.0206	3.1872	0.4961	3.6832	1.5411	0.4564	1.9975	0.0000	1,995.7975	1,995.7975	0.6455		2,011.9345

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.3 Grading - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0199	0.0109	0.1460	4.6000e-004	0.0632	2.5000e-004	0.0634	0.0168	2.3000e-004	0.0170		48.7484	48.7484	1.3100e-003	1.2900e-003	49.1650
Total	0.0199	0.0109	0.1460	4.6000e-004	0.0632	2.5000e-004	0.0634	0.0168	2.3000e-004	0.0170		48.7484	48.7484	1.3100e-003	1.2900e-003	49.1650

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
Total	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.4 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1600e-003	0.0861	0.0295	3.4000e-004	0.0119	5.1000e-004	0.0124	3.4100e-003	4.8000e-004	3.9000e-003		37.1410	37.1410	1.8800e-003	5.5000e-003	38.8267
Worker	9.9400e-003	5.4400e-003	0.0730	2.3000e-004	0.0316	1.2000e-004	0.0317	8.3800e-003	1.1000e-004	8.4900e-003		24.3742	24.3742	6.5000e-004	6.4000e-004	24.5825
Total	0.0121	0.0915	0.1025	5.7000e-004	0.0434	6.3000e-004	0.0441	0.0118	5.9000e-004	0.0124		61.5152	61.5152	2.5300e-003	6.1400e-003	63.4092

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.4 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1600e-003	0.0861	0.0295	3.4000e-004	0.0119	5.1000e-004	0.0124	3.4100e-003	4.8000e-004	3.9000e-003		37.1410	37.1410	1.8800e-003	5.5000e-003	38.8267
Worker	9.9400e-003	5.4400e-003	0.0730	2.3000e-004	0.0316	1.2000e-004	0.0317	8.3800e-003	1.1000e-004	8.4900e-003		24.3742	24.3742	6.5000e-004	6.4000e-004	24.5825
Total	0.0121	0.0915	0.1025	5.7000e-004	0.0434	6.3000e-004	0.0441	0.0118	5.9000e-004	0.0124		61.5152	61.5152	2.5300e-003	6.1400e-003	63.4092

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
Total	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.4 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0900e-003	0.0844	0.0292	3.3000e-004	0.0119	4.9000e-004	0.0124	3.4100e-003	4.7000e-004	3.8800e-003		36.4224	36.4224	1.9300e-003	5.4000e-003	38.0795
Worker	9.4300e-003	5.0000e-003	0.0695	2.2000e-004	0.0316	1.2000e-004	0.0317	8.3800e-003	1.1000e-004	8.4800e-003		23.8962	23.8962	6.0000e-004	6.1000e-004	24.0941
Total	0.0115	0.0894	0.0986	5.5000e-004	0.0434	6.1000e-004	0.0440	0.0118	5.8000e-004	0.0124		60.3186	60.3186	2.5300e-003	6.0100e-003	62.1736

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.4 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0900e-003	0.0844	0.0292	3.3000e-004	0.0119	4.9000e-004	0.0124	3.4100e-003	4.7000e-004	3.8800e-003		36.4224	36.4224	1.9300e-003	5.4000e-003	38.0795
Worker	9.4300e-003	5.0000e-003	0.0695	2.2000e-004	0.0316	1.2000e-004	0.0317	8.3800e-003	1.1000e-004	8.4800e-003		23.8962	23.8962	6.0000e-004	6.1000e-004	24.0941
Total	0.0115	0.0894	0.0986	5.5000e-004	0.0434	6.1000e-004	0.0440	0.0118	5.8000e-004	0.0124		60.3186	60.3186	2.5300e-003	6.0100e-003	62.1736

3.5 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234		1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8002	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234		1,710.0067	1,710.0067	0.5420		1,723.5556

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.5 Paving - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0566	0.0300	0.4169	1.3400e-003	0.3541	7.0000e-004	0.3548	0.0907	6.4000e-004	0.0913		143.3771	143.3771	3.6200e-003	3.6800e-003	144.5646
Total	0.0566	0.0300	0.4169	1.3400e-003	0.3541	7.0000e-004	0.3548	0.0907	6.4000e-004	0.0913		143.3771	143.3771	3.6200e-003	3.6800e-003	144.5646

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234	0.0000	1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8002	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234	0.0000	1,710.0067	1,710.0067	0.5420		1,723.5556

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.5 Paving - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0566	0.0300	0.4169	1.3400e-003	0.3541	7.0000e-004	0.3548	0.0907	6.4000e-004	0.0913		143.3771	143.3771	3.6200e-003	3.6800e-003	144.5646
Total	0.0566	0.0300	0.4169	1.3400e-003	0.3541	7.0000e-004	0.3548	0.0907	6.4000e-004	0.0913		143.3771	143.3771	3.6200e-003	3.6800e-003	144.5646

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	3.4265	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.0000e-003	0.0139	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.7792	4.7792	1.2000e-004	1.2000e-004	4.8188
Total	1.8900e-003	1.0000e-003	0.0139	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.7792	4.7792	1.2000e-004	1.2000e-004	4.8188

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	3.4265	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.0000e-003	0.0139	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.7792	4.7792	1.2000e-004	1.2000e-004	4.8188
Total	1.8900e-003	1.0000e-003	0.0139	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.7792	4.7792	1.2000e-004	1.2000e-004	4.8188

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	3.4265	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	9.2000e-004	0.0133	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.6922	4.6922	1.1000e-004	1.2000e-004	4.7300
Total	1.7800e-003	9.2000e-004	0.0133	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.6922	4.6922	1.1000e-004	1.2000e-004	4.7300

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	3.4265	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	9.2000e-004	0.0133	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.6922	4.6922	1.1000e-004	1.2000e-004	4.7300
Total	1.7800e-003	9.2000e-004	0.0133	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.6922	4.6922	1.1000e-004	1.2000e-004	4.7300

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	0.0756	0.0683	0.5165	9.8000e-004	0.1190	7.4000e-004	0.1197	0.0318	6.9000e-004	0.0325			104.8300	104.8300	7.9500e-003	5.6600e-003	106.7144
Unmitigated	0.0756	0.0683	0.5165	9.8000e-004	0.1190	7.4000e-004	0.1197	0.0318	6.9000e-004	0.0325			104.8300	104.8300	7.9500e-003	5.6600e-003	106.7144

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government (Civic Center)	41.28	0.00	0.00	40,167	40,167
Parking Lot	0.00	0.00	0.00		
Total	41.28	0.00	0.00	40,167	40,167

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Government (Civic Center)	6.60	5.50	6.40	75.00	20.00	5.00	50	34	16
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government (Civic Center)	0.512325	0.057014	0.206318	0.140374	0.024305	0.006187	0.011219	0.006234	0.000948	0.000543	0.028133	0.003250	0.003150
Parking Lot	0.512325	0.057014	0.206318	0.140374	0.024305	0.006187	0.011219	0.006234	0.000948	0.000543	0.028133	0.003250	0.003150

5.0 Energy Detail

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726
NaturalGas Unmitigated	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Government (Civic Center)	381.699	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Government (Civic Center)	0.381699	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.1600e-003	5.1600e-003	1.0000e-005		5.5000e-003
Unmitigated	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.1600e-003	5.1600e-003	1.0000e-005		5.5000e-003

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0223					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2000e-004	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			5.1600e-003	5.1600e-003	1.0000e-005	5.5000e-003
Total	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			5.1600e-003	5.1600e-003	1.0000e-005	5.5000e-003

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0223					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2000e-004	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.1600e-003	5.1600e-003	1.0000e-005		5.5000e-003
Total	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.1600e-003	5.1600e-003	1.0000e-005		5.5000e-003

7.0 Water Detail

7.1 Mitigation Measures Water

- Apply Water Conservation Strategy
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Summer

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	30	201	0.73	Diesel

Boilers

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

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	0.1649	0.4610	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243		84.3712	84.3712	0.0118		84.6669
Total	0.1649	0.4610	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243		84.3712	84.3712	0.0118		84.6669

11.0 Vegetation

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

Orcutt Fire Station Project - AQ
Santa Barbara County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	8.60	1000sqft	2.35	8,600.00	0
Parking Lot	15.00	Space	0.13	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	37
Climate Zone	4			Operational Year	2029
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Start of Construction based on applicant response - "begin in summer 2027"

Land Use - Square footage of Fire Station and parking spaces given from applicant.

Construction Phase - Based off the applicant informaiton. Preliminary construction for grading and site preparation for 4 months and 12-14 months of building construction.

Off-road Equipment -

Trips and VMT -

Grading -

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

Architectural Coating - Based on SBCAPCD Architectural Coating Rule 323.1

Vehicle Trips - Trips generation rates for the fire station land use.

Area Coating - Based on SBCAPCD Architectural Coating Rule 323.1

Construction Off-road Equipment Mitigation - SBCAPCD Rule 345 - Control of Fugitive Dust From Construction and Demolition Activities

Area Mitigation - Based on SBCAPCD Rule 323.1

Water Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - Proposed use of a standard emergency diesel generator. operational assurance testing of the generator for 0.5 hour/week and two 2-hour test/year (30 total hours for testing)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	25.00
tblConstructionPhase	NumDays	220.00	262.00
tblConstructionPhase	NumDays	6.00	43.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	3.00	43.00
tblLandUse	LotAcreage	0.20	2.35
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.50
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	30.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	WD_TR	33.98	4.80

2.0 Emissions Summary

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	1.5027	12.4367	14.1143	0.0256	7.1457	0.4963	7.6421	3.4415	0.4566	3.8981	0.0000	2,410.8955	2,410.8955	0.7685	6.2100e-003	2,430.4451
2028	3.4286	12.1161	14.1103	0.0256	0.3541	0.4706	0.7050	0.0907	0.4504	0.4622	0.0000	2,349.7789	2,349.7789	0.5460	6.0800e-003	2,362.1550
2029	3.4284	1.1466	1.8231	3.0100e-003	6.3200e-003	0.0515	0.0579	1.6800e-003	0.0515	0.0532	0.0000	286.0454	286.0454	0.0155	1.3000e-004	286.4706
Maximum	3.4286	12.4367	14.1143	0.0256	7.1457	0.4963	7.6421	3.4415	0.4566	3.8981	0.0000	2,410.8955	2,410.8955	0.7685	6.2100e-003	2,430.4451

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	1.5027	12.4367	14.1143	0.0256	3.2503	0.4963	3.7466	1.5579	0.4566	2.0145	0.0000	2,410.8955	2,410.8955	0.7685	6.2100e-003	2,430.4451
2028	3.4286	12.1161	14.1103	0.0256	0.3541	0.4706	0.7050	0.0907	0.4504	0.4622	0.0000	2,349.7789	2,349.7789	0.5460	6.0800e-003	2,362.1550
2029	3.4284	1.1466	1.8231	3.0100e-003	6.3200e-003	0.0515	0.0579	1.6800e-003	0.0515	0.0532	0.0000	286.0454	286.0454	0.0155	1.3000e-004	286.4706
Maximum	3.4286	12.4367	14.1143	0.0256	3.2503	0.4963	3.7466	1.5579	0.4566	2.0145	0.0000	2,410.8955	2,410.8955	0.7685	6.2100e-003	2,430.4451

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	51.90	0.00	46.35	53.30	0.00	42.68	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.1600e-003	5.1600e-003	1.0000e-005		5.5000e-003
Energy	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726
Mobile	0.0730	0.0739	0.5801	9.7000e-004	0.1190	7.4000e-004	0.1197	0.0318	7.0000e-004	0.0325		103.3497	103.3497	8.7800e-003	6.0100e-003	105.3595
Stationary	0.1649	0.4610	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243		84.3712	84.3712	0.0118		84.6669
Total	0.4507	0.5723	1.0345	1.9800e-003	0.1190	0.0279	0.1468	0.0318	0.0278	0.0596		232.6317	232.6317	0.0215	6.8300e-003	235.2045

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.1600e-003	5.1600e-003	1.0000e-005		5.5000e-003
Energy	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726
Mobile	0.0730	0.0739	0.5801	9.7000e-004	0.1190	7.4000e-004	0.1197	0.0318	7.0000e-004	0.0325		103.3497	103.3497	8.7800e-003	6.0100e-003	105.3595
Stationary	0.1649	0.4610	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243		84.3712	84.3712	0.0118		84.6669
Total	0.4507	0.5723	1.0345	1.9800e-003	0.1190	0.0279	0.1468	0.0318	0.0278	0.0596		232.6317	232.6317	0.0215	6.8300e-003	235.2045

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2027	8/30/2027	5	43	
2	Grading	Grading	8/31/2027	10/28/2027	5	43	
3	Building Construction	Building Construction	10/29/2027	10/30/2028	5	262	
4	Paving	Paving	10/31/2028	11/30/2028	5	23	

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

5	Architectural Coating	Architectural Coating	12/1/2028	1/4/2029	5	25
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Acres of Grading (Site Preparation Phase): 64.5

Acres of Grading (Grading Phase): 43

Acres of Paving: 0.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 12,900; Non-Residential Outdoor: 4,300; Striped Parking Area: 360 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	5.00	2.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.0985	10.9957	8.9257	0.0245		0.4094	0.4094		0.3766	0.3766		2,372.6856	2,372.6856	0.7674		2,391.8700
Total	1.0985	10.9957	8.9257	0.0245	1.5908	0.4094	2.0001	0.1718	0.3766	0.5484		2,372.6856	2,372.6856	0.7674		2,391.8700

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.2 Site Preparation - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0175	9.9500e-003	0.1228	3.6000e-004	0.0505	2.0000e-004	0.0507	0.0134	1.8000e-004	0.0136		38.2099	38.2099	1.1600e-003	1.1300e-003	38.5751
Total	0.0175	9.9500e-003	0.1228	3.6000e-004	0.0505	2.0000e-004	0.0507	0.0134	1.8000e-004	0.0136		38.2099	38.2099	1.1600e-003	1.1300e-003	38.5751

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	1.0985	10.9957	8.9257	0.0245		0.4094	0.4094		0.3766	0.3766	0.0000	2,372.6856	2,372.6856	0.7674		2,391.8700
Total	1.0985	10.9957	8.9257	0.0245	0.7158	0.4094	1.1252	0.0773	0.3766	0.4539	0.0000	2,372.6856	2,372.6856	0.7674		2,391.8700

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.2 Site Preparation - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0175	9.9500e-003	0.1228	3.6000e-004	0.0505	2.0000e-004	0.0507	0.0134	1.8000e-004	0.0136		38.2099	38.2099	1.1600e-003	1.1300e-003	38.5751
Total	0.0175	9.9500e-003	0.1228	3.6000e-004	0.0505	2.0000e-004	0.0507	0.0134	1.8000e-004	0.0136		38.2099	38.2099	1.1600e-003	1.1300e-003	38.5751

3.3 Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564		1,995.7975	1,995.7975	0.6455		2,011.9345
Total	1.1904	12.4243	8.4937	0.0206	7.0826	0.4961	7.5787	3.4247	0.4564	3.8811		1,995.7975	1,995.7975	0.6455		2,011.9345

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.3 Grading - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0218	0.0124	0.1535	4.5000e-004	0.0632	2.5000e-004	0.0634	0.0168	2.3000e-004	0.0170		47.7624	47.7624	1.4600e-003	1.4100e-003	48.2189
Total	0.0218	0.0124	0.1535	4.5000e-004	0.0632	2.5000e-004	0.0634	0.0168	2.3000e-004	0.0170		47.7624	47.7624	1.4600e-003	1.4100e-003	48.2189

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564	0.0000	1,995.7975	1,995.7975	0.6455		2,011.9345
Total	1.1904	12.4243	8.4937	0.0206	3.1872	0.4961	3.6832	1.5411	0.4564	1.9975	0.0000	1,995.7975	1,995.7975	0.6455		2,011.9345

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.3 Grading - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0218	0.0124	0.1535	4.5000e-004	0.0632	2.5000e-004	0.0634	0.0168	2.3000e-004	0.0170		47.7624	47.7624	1.4600e-003	1.4100e-003	48.2189
Total	0.0218	0.0124	0.1535	4.5000e-004	0.0632	2.5000e-004	0.0634	0.0168	2.3000e-004	0.0170		47.7624	47.7624	1.4600e-003	1.4100e-003	48.2189

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
Total	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.4 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1100e-003	0.0888	0.0304	3.4000e-004	0.0119	5.1000e-004	0.0124	3.4100e-003	4.9000e-004	3.9000e-003		37.1939	37.1939	1.8800e-003	5.5100e-003	38.8830
Worker	0.0109	6.2200e-003	0.0767	2.3000e-004	0.0316	1.2000e-004	0.0317	8.3800e-003	1.1000e-004	8.4900e-003		23.8812	23.8812	7.3000e-004	7.0000e-004	24.1094
Total	0.0130	0.0951	0.1071	5.7000e-004	0.0434	6.3000e-004	0.0441	0.0118	6.0000e-004	0.0124		61.0751	61.0751	2.6100e-003	6.2100e-003	62.9924

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.4 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1100e-003	0.0888	0.0304	3.4000e-004	0.0119	5.1000e-004	0.0124	3.4100e-003	4.9000e-004	3.9000e-003		37.1939	37.1939	1.8800e-003	5.5100e-003	38.8830
Worker	0.0109	6.2200e-003	0.0767	2.3000e-004	0.0316	1.2000e-004	0.0317	8.3800e-003	1.1000e-004	8.4900e-003		23.8812	23.8812	7.3000e-004	7.0000e-004	24.1094
Total	0.0130	0.0951	0.1071	5.7000e-004	0.0434	6.3000e-004	0.0441	0.0118	6.0000e-004	0.0124		61.0751	61.0751	2.6100e-003	6.2100e-003	62.9924

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
Total	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.4 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0300e-003	0.0871	0.0300	3.3000e-004	0.0119	4.9000e-004	0.0124	3.4100e-003	4.7000e-004	3.8800e-003		36.4758	36.4758	1.9200e-003	5.4100e-003	38.1362
Worker	0.0104	5.7200e-003	0.0731	2.2000e-004	0.0316	1.2000e-004	0.0317	8.3800e-003	1.1000e-004	8.4800e-003		23.4133	23.4133	6.7000e-004	6.7000e-004	23.6301
Total	0.0124	0.0928	0.1031	5.5000e-004	0.0434	6.1000e-004	0.0440	0.0118	5.8000e-004	0.0124		59.8891	59.8891	2.5900e-003	6.0800e-003	61.7663

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.4 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0300e-003	0.0871	0.0300	3.3000e-004	0.0119	4.9000e-004	0.0124	3.4100e-003	4.7000e-004	3.8800e-003		36.4758	36.4758	1.9200e-003	5.4100e-003	38.1362
Worker	0.0104	5.7200e-003	0.0731	2.2000e-004	0.0316	1.2000e-004	0.0317	8.3800e-003	1.1000e-004	8.4800e-003		23.4133	23.4133	6.7000e-004	6.7000e-004	23.6301
Total	0.0124	0.0928	0.1031	5.5000e-004	0.0434	6.1000e-004	0.0440	0.0118	5.8000e-004	0.0124		59.8891	59.8891	2.5900e-003	6.0800e-003	61.7663

3.5 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234		1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8002	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234		1,710.0067	1,710.0067	0.5420		1,723.5556

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.5 Paving - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0622	0.0343	0.4387	1.3200e-003	0.3541	7.0000e-004	0.3548	0.0907	6.4000e-004	0.0913		140.4796	140.4796	4.0400e-003	4.0300e-003	141.7807
Total	0.0622	0.0343	0.4387	1.3200e-003	0.3541	7.0000e-004	0.3548	0.0907	6.4000e-004	0.0913		140.4796	140.4796	4.0400e-003	4.0300e-003	141.7807

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234	0.0000	1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8002	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234	0.0000	1,710.0067	1,710.0067	0.5420		1,723.5556

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.5 Paving - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0622	0.0343	0.4387	1.3200e-003	0.3541	7.0000e-004	0.3548	0.0907	6.4000e-004	0.0913		140.4796	140.4796	4.0400e-003	4.0300e-003	141.7807
Total	0.0622	0.0343	0.4387	1.3200e-003	0.3541	7.0000e-004	0.3548	0.0907	6.4000e-004	0.0913		140.4796	140.4796	4.0400e-003	4.0300e-003	141.7807

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	3.4265	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

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

3.6 Architectural Coating - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0700e-003	1.1400e-003	0.0146	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.6827	4.6827	1.3000e-004	1.3000e-004	4.7260
Total	2.0700e-003	1.1400e-003	0.0146	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.6827	4.6827	1.3000e-004	1.3000e-004	4.7260

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	3.4265	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.6 Architectural Coating - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0700e-003	1.1400e-003	0.0146	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.6827	4.6827	1.3000e-004	1.3000e-004	4.7260
Total	2.0700e-003	1.1400e-003	0.0146	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.6827	4.6827	1.3000e-004	1.3000e-004	4.7260

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	3.4265	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.6 Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9600e-003	1.0600e-003	0.0140	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.5974	4.5974	1.2000e-004	1.3000e-004	4.6388
Total	1.9600e-003	1.0600e-003	0.0140	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.5974	4.5974	1.2000e-004	1.3000e-004	4.6388

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	3.4265	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

3.6 Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9600e-003	1.0600e-003	0.0140	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.5974	4.5974	1.2000e-004	1.3000e-004	4.6388
Total	1.9600e-003	1.0600e-003	0.0140	4.0000e-005	6.3200e-003	2.0000e-005	6.3400e-003	1.6800e-003	2.0000e-005	1.7000e-003		4.5974	4.5974	1.2000e-004	1.3000e-004	4.6388

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0730	0.0739	0.5801	9.7000e-004	0.1190	7.4000e-004	0.1197	0.0318	7.0000e-004	0.0325		103.3497	103.3497	8.7800e-003	6.0100e-003	105.3595
Unmitigated	0.0730	0.0739	0.5801	9.7000e-004	0.1190	7.4000e-004	0.1197	0.0318	7.0000e-004	0.0325		103.3497	103.3497	8.7800e-003	6.0100e-003	105.3595

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government (Civic Center)	41.28	0.00	0.00	40,167	40,167
Parking Lot	0.00	0.00	0.00		
Total	41.28	0.00	0.00	40,167	40,167

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Government (Civic Center)	6.60	5.50	6.40	75.00	20.00	5.00	50	34	16
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government (Civic Center)	0.512325	0.057014	0.206318	0.140374	0.024305	0.006187	0.011219	0.006234	0.000948	0.000543	0.028133	0.003250	0.003150
Parking Lot	0.512325	0.057014	0.206318	0.140374	0.024305	0.006187	0.011219	0.006234	0.000948	0.000543	0.028133	0.003250	0.003150

5.0 Energy Detail

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726
NaturalGas Unmitigated	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Government (Civic Center)	381.699	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Government (Civic Center)	0.381699	4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		4.1200e-003	0.0374	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003		44.9057	44.9057	8.6000e-004	8.2000e-004	45.1726

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.1600e-003	5.1600e-003	1.0000e-005		5.5000e-003
Unmitigated	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.1600e-003	5.1600e-003	1.0000e-005		5.5000e-003

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0223					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2000e-004	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			5.1600e-003	5.1600e-003	1.0000e-005	5.5000e-003
Total	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			5.1600e-003	5.1600e-003	1.0000e-005	5.5000e-003

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0223					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2000e-004	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			5.1600e-003	5.1600e-003	1.0000e-005	5.5000e-003
Total	0.2087	2.0000e-005	2.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			5.1600e-003	5.1600e-003	1.0000e-005	5.5000e-003

7.0 Water Detail

7.1 Mitigation Measures Water

- Apply Water Conservation Strategy
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Orcutt Fire Station Project - AQ - Santa Barbara County APCD Air District, Winter

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	30	201	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

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

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	0.1649	0.4610	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243		84.3712	84.3712	0.0118		84.6669
Total	0.1649	0.4610	0.4205	7.9000e-004		0.0243	0.0243		0.0243	0.0243		84.3712	84.3712	0.0118		84.6669

11.0 Vegetation

Attachment B

Biological Resources Assessment



Orcutt Fire Station Project

Biological Resources Assessment

prepared for

Santa Barbara County Fire Department
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1105 Santa Barbara Street, Second Floor
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August 2021



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Executive Summary

The Orcutt Fire Station project site is located in the community of Orcutt, Santa Barbara County, California. The proposed project site is located south of Union Valley Parkway and west of U.S. Route 101 (US 101); the approximate center of the project site is located at latitude 34.879943°N and longitude -120.426761°W. The site, Assessor's Parcel Number 107-321-013, is depicted on the *Santa Maria, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle. The project site is bordered by Union Valley Parkway to the south, developed residential communities to the east and north and vacant space to the west.

The Biological Study Area (BSA) analyzed in this biological resources assessment report is comprised of the area where all project components will be located as outlined in the project description to thoroughly ascertain the potential impacts to biological resources on site and in the vicinity of the proposed project. The 5.67-acre BSA is generally level and contains an elevational range between 350-400 feet (107-122 meters) above mean sea level.

No wetlands or waters are mapped within the BSA by the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory or USGS National Hydrography Dataset and none were observed during an on-site reconnaissance survey.

Four vegetation communities and land cover types are associated with the BSA: non-native annual grassland, eucalyptus grove, iceplant mat/landscaped, and road shoulder/disturbed. The BSA contains four coast live oak (*Quercus agrifolia*) trees in the southern portion of the project area along Union Valley Parkway. The site is dominated by non-native annual grassland.

The database and literature review of records from the *Santa Maria, California* USGS 7.5-minute topographic quadrangle, the surrounding eight quadrangles, and the USFWS Information for Planning and Consultation list of federally listed species reveals 69 special status plant species and 32 special status animal species known or have the potential to occur within the vicinity of the BSA (Appendix D). This search area contains a large diversity of habitats, many of which are absent from the BSA, and therefore many of the species that were returned in the search results were determined to have no potential or a low potential to occur within the BSA based on lack of suitable habitat or marginal habitat conditions, respectively, for those species.

The BSA is not located within federally designated critical habitat but, based on the presence of their general habitat requirements and each species geographic range, the BSA contains moderate potential habitat for two special status animal species: California legless lizard (*Anniella pulchra*) and western spadefoot (*Spea hammondi*). In addition, the grasslands, trees and shrubs within and adjacent to the BSA have potential to support nesting birds protected by the federal Migratory Bird Treaty Act and California Fish and Game Code (CFG) Section 3500. With implementation of avoidance measures impacts to special status animals would be reduced to less than significant levels.

The BSA contains three coast live oak trees that have diameters at breast height greater than six inches and one coast live oak tree with a DBH less than six inches; all four coast live oaks are over six feet in height. The coast live oak trees are at the edge of the project area and would require mitigation if removed. Implementation of avoidance and mitigation measures described in this biological resources assessment would reduce the potential for project-related impacts to native oak trees.

1 Introduction

Rincon Consultants, Inc. (Rincon) prepared this Biological Resources Assessment (BRA) report to document existing conditions, evaluate the potential to support special status species, as well as evaluate the potential for impacts to special status and sensitive biological resources during implementation of the proposed Orcutt Fire Station Project (project). The approximate 4.6-acre project site is located in northern Santa Barbara County (County), California.

1.1 Project Location and Study Area

The project site is located in the community of Orcutt, Santa Barbara County, California (Figure 1). The proposed project site is located adjacent to and north of Union Valley Parkway and west of U.S. Highway 101 (US 101); the approximate center of the project site is located at latitude 34.879943°N and longitude -120.426761°W. The site is depicted on the *Santa Maria, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle and is designated as Assessor's Parcel Number 107-321-013. The proposed project would occur on the approximately 4.6-acre project site as well as the adjacent Union Valley Parkway road shoulder to the south. Developed residential communities occur to the east and north and vacant space to the west (Figure 1).

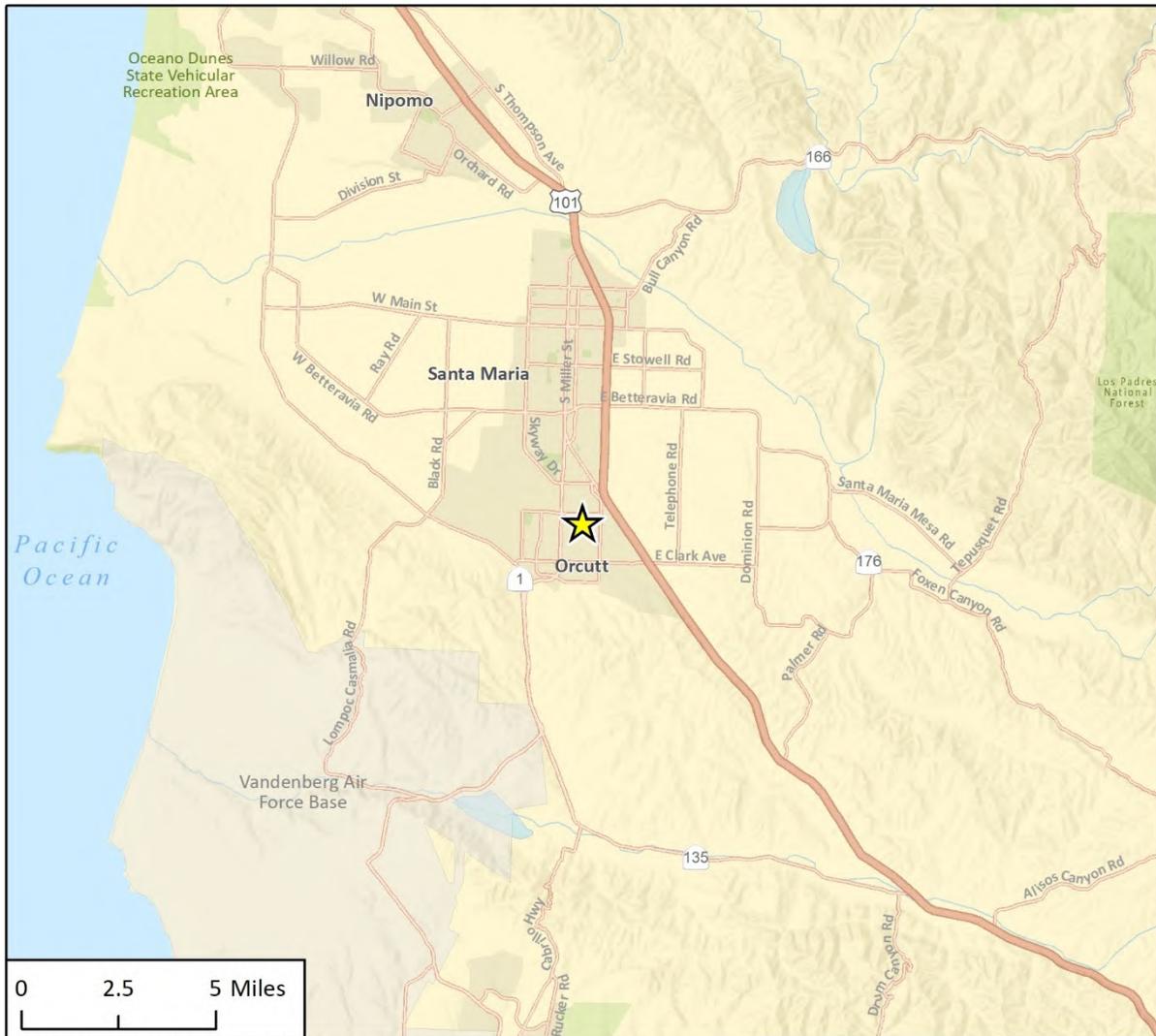
The Biological Study Area (BSA) (Figure 2) analyzed in this BRA contains all of the project components (impact areas) as outlined in the project description. The BSA was defined in order to assess the potential impacts to biological resources on site, as well as in the vicinity of the proposed project. The BSA was also defined to an extent that would be suitable to ascertain any indirect impacts to biological resources in areas outside of the proposed project impact area. The BSA for the proposed project is approximately 5.67 acres and is presented in Figure 2.

1.2 Project Description

The Santa Barbara County Fire Department proposes a new fire station on the project site. The proposed fire station would be approximately 8,600 square feet in area. The maximum roof height would be 32 feet. The fire station would include three drive-through bays for fire trucks and associated apparatus. The fire station's interior uses would provide the following fire-fighting staff amenities: bedrooms with bathrooms, a communal kitchen, dining area, fire station captain's office, day room, workout area, laundry room with extractor units, among other amenities.

The project would include one or two aboveground fuel tanks for the storage of up to 250 gallons of gasoline and up to 1,000 gallons of diesel (if only one fuel tank would be on the site, the tank with be bifurcated to hold both gasoline and diesel). An emergency diesel-powered generator would also be located on the northeast side of the project building. Additional exterior structures would include a trash and recycling enclosure and storage area for lawn and gardening tools to the north of the main building.

Figure 1 Regional Location Map



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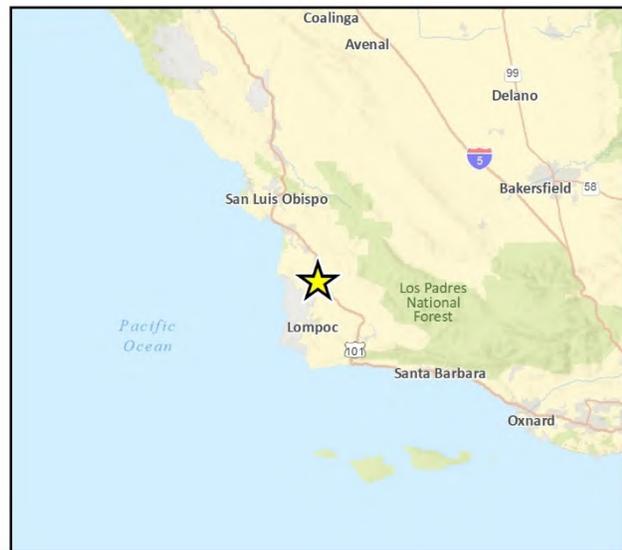


Fig. 1 Regional Location

Figure 2 Biological Study Area



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Fig. 2 Study Area

The site would also include three driveways: one at the western terminus of Brookside Avenue and two along Union Valley Parkway. Fifteen parking spaces would be located on site, including two accessible spaces. The areas adjacent to and around the structure and exterior facilities would be landscaped with a mixture of native and drought tolerant plantings.

Preliminary construction, including rough grading and site preparation, would occur over an approximately four-month period. All grading would be balanced on-site with a maximum depth of soil cut being 10 feet. Subsequent fire station construction would occur over a 12- to 14-month period. It is anticipated that project construction would begin the summer of 2027 and the station would begin operations by early 2029. No eucalyptus tree removals are proposed, and no project activities would occur within the designated Open Space area.

A preliminary site plan is included as Attachment E.

2 Methodology

2.1 Regulatory Overview

Regulated or sensitive resources studied and analyzed herein include special status plant and animal species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by federal, State, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the County of Santa Barbara).

2.1.1 Definition of Special Status Species

For the purposes of this report, special status species include:

- Species listed as threatened or endangered under the Federal Endangered Species Act; species that are under review may be included if there is a reasonable expectation of listing within the life of the project;
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act;
- Plant species listed as rare by the California Department of Fish and Wildlife (CDFW) under the Native Plant Protection Act;
- Species designated as Fully Protected by the CDFW;
- Species designated as Species of Special Concern or Watch List by the CDFW; note these designations are administrative designations made by CDFW and have no formal protective measures through State or federal statutes;
- Species designated as sensitive by the U.S. Forest Service or U.S. Bureau of Land Management, if the project would affect lands administered by these agencies; and
- Species designated as locally important by the local agency and/or otherwise protected through local ordinances and/or policies.

2.1.2 Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes (Appendix A):

- California Environmental Quality Act (CEQA)
- Federal Endangered Species Act (ESA)
- California Endangered Species Act (CESA)
- Federal Clean Water Act (CWA)
- California Fish and Game Code (CFGC)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act (Porter-Cologne Act)

- Orcutt Community Plan (OCP)
- Santa Barbara County Environmental Thresholds and Guidelines Manual

2.1.3 Previous CEQA Review

The OCP Environmental Impact Report (EIR) (County of Santa Barbara 1995) analyzed the potential impacts as a result of buildout under the OCP. The project area was also considered in the OCP EIR as “Key Site 27.” The OCP EIR indicated that no rare, endangered, or threatened species of flora or fauna are known or expected to occur on Key Site 27 and no site-specific impact analysis was conducted as part of Volume 2 of the EIR. The OCP EIR did not include any impacts or mitigation measures for biological resources for Key Site 27. The OCP EIR impact analysis and mitigation measures were reviewed in the context of the proposed project and incorporated as applicable in this BRA.

2.1.4 Guidelines for Determining CEQA Significance

The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist, were used to evaluate potential environmental effects. Based on these criteria, the proposed project would have a significant effect on biological resources if it would:

- a) *Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*
- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*
- c) *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*
- d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*
- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*
- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.*

Guidelines for evaluation of biological impacts and significance thresholds for projects in the County are contained in *Environmental Thresholds and Guidelines Manual* (County Guidelines; County of Santa Barbara 2008, revised 2015) and *A Planner’s Guide to Conditions of Approval and Mitigation Measures* (County of Santa Barbara 2005). Determination of significance for disturbance to habitats or species within the County’s jurisdiction is based on the following criteria:

- a. *Conflict with adopted environmental plans and goals of the community where it is located;*
- b. *Substantially affect a rare or endangered species of animal, plant or the habitat of the species;*

- c. Interfere substantially with the movement of any resident or migratory fish or wildlife species; or*
- d. Substantially diminish habitat for fish, wildlife, or plants.*

The evaluation of project impacts as detailed in the County Guidelines calls for an assessment of both short- and long-term impacts. Significant impacts to species or habitats are those which substantially impact significant resources in the following ways:

- a. Substantially reduce or eliminate species diversity or abundance;*
- b. Substantially reduce or eliminate quantity or quality of nesting areas;*
- c. Substantially limit reproductive capacity through losses of individuals or habitat;*
- d. Substantially fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources;*
- e. Substantially limit or fragment range and movement (geographic distribution or animals and/or seed dispersal routes); or*
- f. Substantially interfere with natural processes, such as fire or flooding, upon which the habitat depends.*

Instances in which project impacts would be less than significant include:

- a. Small acreages of non-native grassland if wildlife values are low;*
- b. Individuals or stands of non-native trees if not used by important animal species such as raptors or monarch butterflies;*
- c. Areas of historical disturbance such as intensive agriculture;*
- d. Small pockets of habitats already significantly fragmented or isolated, and degraded or disturbed; or*
- e. Areas of primarily ruderal species resulting from pre-existing man-made disturbance.*

Additional County guidelines are provided for specific biological communities. These are used in conjunction with the general impact assessment guidelines described above.

Wetlands

Based on the County Guidelines, the following types of project-created impacts may be considered significant:

- a. Projects that result in a net loss of important wetland area or wetland habitat value, either through direct or indirect impacts to wetland vegetation, degradation of water quality, or would threaten the continuity of wetland-dependent animal or plant species are considered to have a potentially significant effect on the environment;*
- b. Wildlife access, use, and dispersal in wetland habitats are key components of their ecosystem value. Projects that substantially interrupt wildlife access, use and dispersal in wetland areas, would typically be considered to have potentially significant impacts; and*
- c. The hydrology of wetlands systems must be maintained if their function and values are to be preserved. Therefore, maintenance of hydrological conditions, such as the quantity and quality of runoff, must be assessed in project review.*

Riparian Habitats

Based on the County Guidelines, the following types of project-related impacts may be considered significant:

- a. *Direct removal of riparian vegetation;*
- b. *Disruption of riparian wildlife habitat, particularly animal dispersal corridors and or understory vegetation;*
- c. *Intrusion within the upland edge of the riparian canopy (generally within 50 feet in urban areas, within 100 feet in rural areas, and within 200 feet of major rivers), leading to potential disruption of animal migration, breeding, etc. through increased noise, light and glare, and human or domestic animal intrusion;*
- d. *Disruption of a substantial amount of adjacent upland vegetation where such vegetation plays a critical role in supporting riparian-dependent wildlife species (e.g., amphibians), or where such vegetation aids in stabilizing steep slopes adjacent to the riparian corridor, which reduces erosion and sedimentation potential; and*
- e. *Construction activity that disrupts critical time periods (nesting, breeding) for fish and other wildlife species.*

Individual Native Trees

Based on the County Guidelines, the following types of project-related impacts may be considered significant:

- a. *Impacts to native specimen trees, regardless of size. Specimen trees are defined as mature trees that are healthy and structurally sound and have grown into the natural stature particular to the species;*
- b. *Impacts to rare native trees, which are very low in number or isolated in distribution; or*
- c. *In general, the loss of 10% or more of the trees of biological value on a project site.*

2.2 Literature Review

Queries of the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation System (IPaC; USFWS 2021a), CDFW California Natural Diversity Database (CNDDDB; CDFW 2021a) and California Native Plant Society (CNPS) Online Inventory of Rare, Threatened and Endangered Plants of California (CNPS 2021) were conducted to obtain comprehensive information regarding State and federally listed species as well as other special status species considered to have potential to occur within the *Santa Maria, California* USGS 7.5-minute topographic quadrangle and the surrounding eight quadrangles (*Oceano, Nipomo, Huasna Peak, Twitchell Dam, Sisquoc, Orcutt, Casmalia, and Guadalupe*). The results of these scientific database queries were compiled into a table that is presented as Appendix D.

Additional sources of information that was reviewed regarding sensitive biological resources included:

- CDFW Biogeographic Information and Observation System Viewer Application for the Biological Study Area (CDFW 2021b);
- USFWS Critical Habitat Portal (USFWS 2021b);
- USFWS National Wetlands Inventory (NWI) Mapper (USFWS 2021c);

- USGS National Hydrography Dataset (NHD; USGS 2021); and
- U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA, NRCS 2021a).

2.3 Field Reconnaissance Survey

A reconnaissance survey was completed for the original project design by Rincon Senior Biologist Michael Tom and Associate Biologist Lindsey Stockton on July 8, 2021. This reconnaissance survey was restricted to the BSA. The results of that survey were also used to inform the analysis in this BRA.

Mr. Tom and Ms. Stockton surveyed the entire BSA on foot. Weather conditions were mild and generally favorable for the detection of wildlife species typically active during the day. The sky was clear, with less than five percent cloud cover throughout the survey. The temperature averaged 80 degrees Fahrenheit and winds were mild ranging from one to three miles per hour. The survey was conducted to document the existing site conditions and to evaluate the potential for presence of sensitive biological resources, including sensitive plant and animal species, sensitive plant communities, and habitat for nesting birds protected by federal and state laws. During the survey, an inventory of plant and animal species observed was compiled and a preliminary assessment of potentially jurisdictional aquatic features was conducted. The compendium of plant and wildlife observed on the BSA on July 8, 2021 can be found in Appendix C.

Plant species nomenclature and taxonomy followed *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012) and the Jepson eFlora (Jepson Flora Project [eds.] 2019). All plant species encountered were noted and identified to the lowest taxonomic level possible given the condition of the materials during the site visit. The vegetation classification system used for this analysis is based on *A Manual of California Vegetation, Second Edition* (MCV2; Sawyer et al. 2009), but has been modified as needed to accurately describe the existing habitats observed on site. These vegetation communities were mapped onto aerial imagery depicting the BSA and then later digitized using ArcGIS® (ESRI 2019).

Wildlife identification and nomenclature followed standard reference texts, including *Sibley Birds West: Field Guide to Birds of Western North America* (Sibley 2016), *Field Guide to Western Reptiles and Amphibians* (Stebbins 2003), and *Mammals of North America* (Bowers et al. 2004). The habitat requirements for each regionally occurring special status species were assessed and compared to the type and quality of the habitats observed within the BSA during the field survey. Several sensitive species were eliminated from consideration as having potential to occur on site due to lack of suitable habitat, lack of suitable soils/substrate, and/or knowledge of regional distribution.

3 Existing Conditions

This section summarizes the results of the literature review, reconnaissance-level field survey, and vegetation mapping efforts. Discussions regarding the general environmental setting, vegetation communities present, plants and animals observed, potential special status species issues, and other possible constraints regarding the biological resources on site are presented below. A complete list of all the plant and animal species observed on site during the field survey is presented as Appendix C and representative photographs of the project site are provided in Appendix B.

3.1 Physical Characteristics

The project site is generally located in the Santa Maria Valley in northern Santa Barbara County, California. Average annual temperatures in Santa Maria ranged between 46 and 69 degrees Fahrenheit, with the warmest temperatures occurring between July and October and the coldest temperatures occurring between November and February. Santa Maria receives rainfall of approximately 14 inches annually, with the most rain occurring between December through March (Western Regional Climate Center 2021).

The BSA has generally flat topography, with elevations ranging 350-400 feet (107-122 meters) above mean sea level and is dominated by non-native annual grassland habitat. A dirt footpath also traverses east-west across the southern portion of the site connecting Brookside Avenue to Union Valley Parkway. During the reconnaissance survey people and pets (dogs) were observed utilizing the foot path.

3.1.1 Watershed and Drainages

The BSA is located within the Lower Orcutt Creek sub-watershed of the Santa Maria sub-basin (Hydrologic Unit Code 180600080503). The Santa Maria River Watershed is located in southern San Luis Obispo County and northern Santa Barbara County. The watershed includes the major tributaries of the Cuyama and Sisquoc Rivers as well as a number of smaller tributaries. No wetlands or waters are mapped within the study area by the NWI (USFWS 2021c) or NHD (USGS 2021).

3.1.2 Soils

Two soil map units are documented within the BSA: Marina sand, 9 to 30 percent slope and Oceano sand, 2 to 15 percent slope. The northeast corner of the project site consists of Oceano sand, the remaining area contains Marina sand (USDA, NRCS 2021a). Descriptions of each soil map unit are presented below.

- **Marina sand, 9 to 30 percent slopes**, is a somewhat excessively drained soil that occurs on terraces. Marina sand is derived from eolian deposits and has a typically homogeneous soil profile of sand textures to 88 inches. This soil map unit is not included on the *National Hydric Soils List* (USDA, NRCS 2021b).
- **Oceano sand, 2 to 15 percent slopes eroded**, is an excessively drained soil that occurs on dunes. This soil type is derived from eolian sands and has a typical soil profile of sandy loam textures. This soil map unit is not included on the *National Hydric Soils List* (USDA, NRCS 2021b).

3.2 Vegetation and Other Land Cover

This section describes the characteristics, extent, and location of the vegetation communities and other land cover types within the BSA, including dominant plant species observed within each community/land cover type during site visits. Four vegetation communities or land cover types are associated with the BSA: non-native annual grassland, eucalyptus grove, iceplant mat/landscaped, and road shoulder/disturbed. The BSA contains four coast live oak (*Quercus agrifolia*) trees in the southern portion of the project area along Union Valley Parkway. A list of plant species observed on site during the field surveys conducted for this report can be found in Appendix C. The vegetation classification system used for this analysis is based on MCV2 (Sawyer et al. 2009), but has been modified as needed to accurately describe the existing habitats observed onsite. Approximate acreages of the vegetation communities found within the BSA are shown in Table 1 and the extents of vegetation communities and other land cover types are presented in Figure 3. They are also discussed in greater detail below.

Table 1 Vegetation Communities within the BSA

Vegetation/Land Cover Type	BSA (acres)
Non-native annual grassland	3.89
Eucalyptus grove	1.37
Iceplant mat/landscape	0.15
Road shoulder/developed	0.26
Total	5.67

3.2.1 Non-native Annual Grassland

Non-native annual grassland within the BSA encompasses approximately 3.89 acres and consists primarily of exotic annual grasses and includes areas dominated by non-native grasses including rip-gut brome (*Bromus diandrus*), wild oat (*Avena fatua*), and veldt grass (*Ehrharta calycina*) (Table 1 and Figure 3). Although non-native annual grasses form the dominant plant species composition, annual and perennial forbs, such as jimson weed (*Datura stramonium*) and doveweed (*Croton californicus*), are also scattered within this vegetation type. Additionally, four coast live oak individuals that appear to have been planted occur within the southernmost region of this vegetation community. The non-native annual grassland within the BSA most closely resembles the *Bromus (diandrus, hordeaceous) – Brachypodium distachyon* Semi-Natural Herbaceous Stands in MCV2 (Sawyer et al. 2009).

3.2.2 Eucalyptus Grove

Within the BSA, this alliance is dominated by blue gum eucalyptus (*Eucalyptus globulus*) as the sole tree species and is characterized by a dense stand of eucalyptus with over 80 percent cover within the tree layer (Figure 3). The herbaceous layer is sparse, and primarily consists of leaf litter with sparse weedy non-native grasses. This alliance is found within the eastern portion of the BSA corresponding with the area designated as Open Space. The BSA contains 1.37 acres of this vegetation community. The eucalyptus grove within the BSA most closely resembles the *Eucalyptus*

Figure 3 Vegetation Communities



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Fig. 3 Vegetation Communities

spp. - *Ailanthus altissima* - *Robinia pseudoacacia* Woodland Semi-Natural Alliance in MCV2 (Sawyer et al. 2009).

3.2.3 Iceplant Mat/Landscaped

Iceplant (*Carpobrotus edulis*) dominates a small area in the southern region of the BSA, bordering Union Valley Parkway (Figure 3). Non-native grasses occur in low abundance within this vegetation community. Planted nonnative shrubs also occur amongst the mats of iceplant. The iceplant mat vegetation community within the BSA most closely resembles the *Mesembryanthemum* spp. - *Carpobrotus* spp. Herbaceous Semi-Natural Alliance in MCV2 (Sawyer et al. 2009). The BSA contains 0.15 acre of this vegetation community.

3.2.4 Road Shoulder/Disturbed

The road shoulder/disturbed land cover type includes areas that have been heavily disturbed or altered from natural vegetation and is associated with the shoulder of Union Valley Parkway (Figure 3). This land cover type consists of sparsely vegetated native and non-native species, such as ripgut brome and telegraph weed, but consist of mostly bare ground. It is not officially identified in *A Manual of California Vegetation* (Sawyer, et al. 2009) as a defined vegetation community. The study area contains 0.26 acre of this land cover type.

3.3 General Wildlife

Wildlife activity within the BSA during the survey was very low. Wildlife species observed during the reconnaissance-level field survey include red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), and western fence lizard (*Sceloporus occidentalis*), among other common species. Wildlife species observed within the BSA during surveys for this report were limited to common avian species and western fence lizards. There were also abundant small mammal burrows present in the BSA, likely created by gophers (*Thomomys* sp.). A complete list of species observed can be found in Appendix C.

4 Sensitive Biological Resources

Local, state, and federal agencies regulate special status species and other sensitive biological resources and require an assessment of their presence or potential presence to be conducted on-site prior to the approval of proposed development on a property. This section discusses sensitive biological resources observed on the project site and evaluates the potential for the project site to support additional sensitive biological resources. Assessments for the potential occurrence of special status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDDB, species occurrence records from other sites in the vicinity of the survey area, previous reports for the project site, and the results of surveys of the project site. The potential for each special status species to occur in the study area was evaluated according to the following criteria:

- **No Potential.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on-site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site. Protocol surveys (if conducted) did not detect species.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDDB, other reports) on the site recently (within the last 5 years).

4.1 Special Status Species

4.1.1 Special Status Plant Species

Based on the database queries described in Section 2.2, 69 special status plant species are known to or have the potential to occur within the vicinity of the BSA (Appendix D). No special status plant species were determined to have a moderate or high potential to occur. Only four special status plant species were determined to have low potential to occur within the BSA, Hoover's bent grass (*Agrostis hooveri*; California Rare Plant Rank 1B.2), Douglas' fiddleneck (*Amsinckia douglasiana*; California Rare Plant Rank 4.2), California spineflower (*Mucronea californica*; California Rare Plant Rank 4.2), and large-flowered leptosiphon (*Leptosiphon grandiflorus*; California Rare Plant Rank 4.2); however, it is very unlikely that these species will occur due to the prevalence of non-native grasses on site and the amount of existing disturbances on and adjacent to the site.

4.1.2 Special Status Animal Species

Based on the database queries described in Section 2.2, 32 special status animal species are known to or have the potential to occur within the vicinity of the BSA (Appendix D). Of those, the following six special status animal species were determined to have low potential to occur within the BSA: monarch - California overwintering population (*Danaus plexippus* pop. 1; Federal Candidate), coast horned lizard (*Phrynosoma blainvillii*; Species of Special Concern), burrowing owl (*Athene cunicularia*; Species of Special Concern), Swainson's hawk (*Buteo swainsoni*; Species of State Threatened), American peregrine falcon (*Falco peregrinus anatum*; Fully Protected), and American badger (*Taxidea taxus*; Species of Special Concern). Because of the marginally suitable habitat or lack of certain habitat features, these species are not likely to occur (see Appendix D) and are not discussed further. Two species were determined to have moderate potential to occur on site, northern California legless lizard (*Anniella pulchra*; Species of Special Concern) and western spade foot (*Spea hammondi*; Species of Special Concern). These species are further discussed below.

Northern California Legless Lizard

The northern California legless lizard is a small slender lizard with no legs, has eyelids, a shovel-shaped snout, smooth shiny scales, and a blunt tail. This species lives mostly underground and occurs with sandy and loose loamy soils or leaf litter. The northern California legless lizard inhabits areas of sparse vegetation within chaparral, coastal dunes, and coastal scrub habitats. This special status species prefers moist, warm soil. The non-native annual grasslands and eucalyptus groves within the BSA contains areas of sandy soil and leaf litter, providing potentially suitable habitat for the northern California legless lizard. In addition, this species is known to occur along Union Valley Parkway in similar habitat types (CDFW 2021a, 2021b). Based on the habitat requirements, known occurrences in the vicinity of the BSA and suitable habitat found within the BSA, this species has a moderate potential to occur.

Western Spadefoot

The western spadefoot is almost completely terrestrial, entering water only to breed. Breeding pools that are suitable for breeding are those which do not contain bullfrogs, fish, or crayfish and that pond for at least 30 days for successful completion of larval development (Morey and Reznick 2004). Outside the breeding season, the western spadefoot spends the majority of the time underground to avoid desiccation and prefer open areas with sandy or gravelly soils in a variety of habitats in the vicinity of a suitable breeding pond. The western spadefoot has been documented within the nine-quad search area surrounding the BSA as well as 500 feet from BSA (CDFW 2021a, 2021b). This closest occurrence documented by the CNDDDB is described as a seasonal rain-filled depression used for breeding by the species and is located in the southeast corner of the intersection of Union Valley Parkway and Hummel Drive. The BSA does not contain suitable aquatic; however, the upland habitats found within the BSA provide suitable upland habitat for the western spadefoot as they contain sandy soils and suitable vegetation types for western spadefoot occupancy during the non-breeding season in close proximity to a known breeding location. Based on the habitat requirements, known occurrences in the vicinity of the BSA and suitable habitat found within the BSA, this species has a moderate potential to occur.

4.1.3 Other Protected Species

Nesting Birds

The trees, shrubs, and grassland areas in and surrounding the BSA provide suitable habitat for nesting bird species. Several species of birds common to the area that typically nest in the habitats found within the BSA were detected during the reconnaissance survey. Although no raptor nests were detected during the reconnaissance survey, the eucalyptus trees found in the western portion of the site and adjacent to the BSA could be utilized by some raptor species for nesting.

4.2 Sensitive Plant Communities and Critical Habitats

Five sensitive natural communities were identified by the CNDDDB as occurring in the regional vicinity of the BSA: central dune scrub, central foredunes, coastal and valley freshwater marsh, southern California threespine stickleback stream, and southern vernal pool; however, these sensitive natural communities do not occur on site. The Sensitive Natural Communities List in the CNDDDB is not currently maintained and no new information has been added. Therefore, vegetation types on site were also compared with the List of Vegetation Alliances and Associations (CDFW 2020). According to the CDFW's Vegetation Program, Alliances with State ranks of S1-S3 are considered to be imperiled, and thus, potentially of special concern. None of the three vegetation community types mapped within the BSA are considered sensitive by CDFW (2020).

No federally designated critical habitat occurs within the BSA.

4.3 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The habitats within the link do not necessarily need to be the same as the habitats that are being linked. Rather, the link merely needs to contain sufficient cover and forage to allow temporary inhabitation by ground-dwelling species. Typically, habitat linkages are contiguous strips of natural areas, though dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Depending upon the species using a corridor, specific physical resources (such as rock outcroppings, vernal pools, or oak trees) may need to be located within the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources spaced sufficiently close together to permit travel along a route in a short period of time.

Wildlife movement corridors can be both large and small scale. Essential Connectivity Areas (ECAs) are regions in which land conservation and management actions should be prioritized to maintain and enhance ecological connectivity and represent principal connections between Natural Landscape Blocks. ECAs are mapped based on coarse ecological condition indicators, rather than the needs of particular species and thus serve the majority of species in each region. Regionally, the BSA

is not located within an ECA as mapped in the report California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (2010). The project site is within an urban setting, bordered by existing barriers to most regional wildlife movement in the form of existing housing developments along the entire northern and eastern boundaries because of these barriers and edge effects, in combination with the existing disturbances on site, the habitats within the BSA likely do not contribute greatly to regional wildlife movement patterns.

4.4 Resources Protected by Local Policies and Ordinances

Native Trees

In 1998 the County's Board of Supervisors initiated a collaborative public process to develop recommendations for oak protection. By July 2001 the County adopted the Oak Tree Protection and Regeneration Program. An outcome of this program was the Santa Barbara County Comprehensive Plan Conservation Element Oak Tree Protection in the Inland Rural Areas of Santa Barbara County as adopted in 2003 and republished in 2009. This document outlined protection goals, development standards, policies and implementing actions to promote the conservation, protection, and regeneration of native oak populations and oak woodlands.

- Oak Tree Protection Policy 1 states that "native oak trees, native oak woodlands and native oak savannas shall be protected to the maximum extent feasible in the County's rural and/or agricultural lands. Regeneration of oak trees shall be encouraged."
- Development Standard 1 (Protection of all species of mature oak trees) states that "development shall avoid removal of or damage to mature oak trees, to the maximum extent feasible." Mature oak trees are defined as live oak trees six inches or greater in DBH. "Native oak trees that cannot be avoided shall be replanted on site or on a receiver site known to be capable of supporting the particular oak tree species. Replanting shall conform to the County's *Standard Conditions and Mitigation Measures*."

The County's *Environmental Thresholds and Guidelines Manual* (2008) states that individual native specimen trees (mature trees that are healthy and structurally sound and have grown into the natural stature particular to the species) are potentially significant. In general, the loss of 10 percent or more of the trees (by number or by canopy cover) of biological value on a project site is considered potentially significant.

In addition, the OCP protects native trees that are considered established and protected if they are six feet in height.

The BSA contains four coast live oak trees over six feet in height and of those four oak trees, three have a diameter at breast height (DBH) of greater than six inches. See Figure 3 for the locations of each tree. The coast live oak trees are at the edge of the project area and would require mitigation if removed.

Non-native Trees

In addition, the OCP protects non-native trees which are defined as those with a DBH of 25 inches or greater (Policy BIO-O-4). Removal of these non-native trees would require replacement with native trees per DevStd BIO-O-4.1 of the OCP and BIO-26 of the OCP EIR. Therefore, non-native eucalyptus trees that meet the criteria described in the OCP found in the area mapped as eucalyptus grove

(depicted in Figure 3) would be considered sensitive. No other non-native trees within the BSA are considered sensitive.

4.5 Habitat Conservation Plans

The BSA does not occur in an area with an adopted Habitat Conservation Plan (HCP) or Natural Communities Conservation Plan (NCCP).

5 Impact Analysis and Mitigation Measures

5.1 Special Status Species

The proposed project would have a significant effect on biological resources if it would:

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*

Additionally, consistent with the County of Santa Barbara Environmental Thresholds and Guidelines Manual (2008):

Substantially affect a rare or endangered species of animal, plant or the habitat of the species.

5.1.1 Special Status Plants

No special status plant species were determined to have a moderate or high potential to occur and no federal or State rare, threatened, or endangered plant species have potential to occur on site. Therefore, impacts to special status plants would be less than significant or not expected and no mitigation measures related to special status plants are recommended.

5.1.2 Special Status Animals

As discussed above, two special status animal species have potential to occur in the BSA based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDDB, species occurrence records from other sites in the vicinity of the survey area, and previous reports for areas in the vicinity of the BSA. Impacts as well as recommended avoidance and minimization efforts for special status animals are discussed below.

Suitable habitat for the northern California legless lizard occurs within sandy soils and iceplant mats of the proposed development footprint as well as the eucalyptus grove leaf litter within the BSA. Direct impacts to these species could occur during ground disturbance in the form of harassment and/or injury, if present.

Suitable upland habitat for the western spadefoot toad can be found throughout the BSA. Much of the impact area within the BSA does occur within suitable upland habitat for the western spadefoot. Potential impacts, if present in upland areas, could occur during ground disturbance in the form of harassment and/or injury, especially since western spadefoot are known to burrow underground. No impacts to aquatic breeding habitat would occur from the proposed project.

Several bird species protected by the CFGC and the MBTA may nest in grasslands, trees, and shrubs within or adjacent to the BSA. Development of the project may result in direct or indirect impacts to nesting bird species, should they be present within and/or in the immediate vicinity of areas of disturbance at the time of construction. Impacts to nesting birds could occur if nests with eggs or young are present within the proposed disturbance area during project implementation that may cause direct impact to the nest, and/or failure or abandonment of the nest.

Impacts to special status animal species are potentially significant.

Special Status Animal Recommended Mitigation Measures

The OCP EIR identified potential impacts to special status species and nesting birds on a programmatic level, but no mitigation measures specific to Key Site 27 were developed as part of the OCP EIR. The following mitigation measures are proposed to facilitate the implementation of the applicable programmatic mitigation measures in the OCP EIR to provide project specific measures to avoid and/or minimize impacts to sensitive biological resources.

BIO-1 Northern California Legless Lizard and Western Spadefoot Pre-construction Survey and Relocation

At a minimum of two weeks prior to initiation of ground disturbing activities and vegetation removal, a County-approved biologist shall survey the limits of grading for northern California legless lizards and western spadefoot. Surveys for legless lizards shall include raking of leaf litter and sand under shrub and trees in suitable habitat within the disturbance footprint to a minimum depth of eight inches. If northern California legless lizards and/or western spadefoots are found and would be impacted by the project the County-approved biologist shall capture and relocate the species to designated open space areas on site or at County-approved off-site locations. Captured animals shall be placed into containers with sand or other moist substrates and released in the designated areas within three hours. In addition to preconstruction surveys, the biologist shall be on-site during initial grading activities to relocate any northern California legless lizards and/or western spadefoots that are unearthed during excavation. If in good health, they shall be immediately relocated to the designated relocation area. If injured, the animals shall be turned over to a CDFW-approved specialist until they are in a condition suitable for release into the designated release area or deposited at an approved vertebrate museum.

Plan Requirements and Timing. Prior to ground-disturbing activities, the name, qualifications, scope, and contact information for the surveying biologist must be submitted to the County for approval in advance of the surveys. Proposed relocation areas shall be identified and approved by the County prior to beginning the work. A report of the results of the pre-construction survey and any required capture and relocation efforts shall be submitted to the County for review prior to initiation of ground-disturbing activities. Weekly monitoring reports shall be submitted to the County by the County-approved biologist during initial ground disturbing activities. Biological monitoring requirements are to be implemented during construction. This measure shall be printed on all grading and construction plans.

Monitoring. The County and/or County-approved biologist shall monitor compliance with the above avoidance and minimization measures.

BIO-2 Nesting Bird Surveys

If feasible, removal of vegetation within suitable nesting bird habitats will be scheduled to occur in the fall and winter (between September 1 and February 14), after fledging and before the initiation of the nesting season. For vegetation removal activities occurring during the nesting season (generally February 15 to August 31), surveys for nesting birds covered by the CFGC and the MBTA should be conducted by a qualified biologist no more than 14 days prior to vegetation removal. The surveys should include the disturbance area plus a 300-foot buffer around the site, or to the topographic divide where substantial topography is present in the buffer. If active nests are located, all construction work should be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer should be a minimum of 50 feet for non-raptor bird species and at

least 300 feet for raptor species. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) should be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist should confirm that breeding/nesting is completed, and young have fledged the nest prior to removal of the buffer. If buffer zones are determined to be infeasible, a full-time qualified biological monitor must be onsite to monitoring construction within the buffer zones to ensure active nests and nesting birds are not impacted.

Plan Requirements and Timing. The surveys shall be conducted no more than 14 days prior to the initiation of vegetation and/or tree removal activities. A report of the nesting bird survey results shall be submitted to the County for review and approval prior to construction activities which involve tree or vegetation removal. These measures are to be implemented during grading and construction activities.

Monitoring. The County and/or County-approved biologist shall monitor compliance with the above avoidance and minimization measures. Active nests shall be monitored periodically by the County-approved biologist until it has been determined that the nest is no longer being used by either the young or adults.

Implementation of these recommended avoidance, minimization, and mitigation measures would reduce impacts to special status animals to less than significant levels.

5.2 Sensitive Plant Communities

The proposed project would have a significant effect on biological resources if it would:

- b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*

No sensitive vegetation communities or riparian habitats occur within the BSA; therefore, no impacts would occur to these resources. No measures are recommended.

5.3 Jurisdictional Waters and Wetlands

The proposed project would have a significant effect on biological resources if it would:

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

No State or federally protected wetlands or jurisdictional areas are located within the BSA; therefore, there would be no impacts to waters or wetlands. No measures are recommended.

5.4 Wildlife Movement

The proposed project would have a significant effect on biological resources if it would:

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

The project site is bordered by existing barriers to most regional wildlife movement in the form of existing housing developments along the entire northern and eastern boundaries. In addition, the project site is located largely in an urban setting, is disturbed and construction of the fire station would encompass a relatively small area and not include development of the entire parcel. Designated open space areas would maintain connectivity with adjacent parcels. Therefore, impacts to wildlife movement would be less than significant and no measures are recommended.

5.5 Local Policies and Ordinances

The proposed project would have a significant effect on biological resources if it would:

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

The proposed project may result in direct or indirect impacts to oak trees with heights greater than six feet and/or a DBH greater than or equal to 6 inches within the BSA. However, the exact number of trees to be removed, trimmed, and/or critical root zones impacted from the proposed project is not known at this time due to limited information regarding the project's final design, grading limits, and staging area locations. Up to four coast live oaks could be removed or otherwise impacted by the project. Impacts to any of the four oak trees would be potentially significant.

No impacts to the eucalyptus grove and no eucalyptus removals are proposed and therefore, no impacts to protected non-native trees would occur.

Native Tree Recommended Mitigation Measures

BIO-3 Tree Avoidance and Tree Protection Plan

The County should modify the proposed project to either incorporate (to implement OCP Policy BIO-O-3 and OCP EIR BIO-26) and/or avoid oak trees. A County-approved biologist and/or arborist shall prepare a Tree Protection Plan (TPP) to ensure avoidance of impacts to protected trees that are not planned for removal. The TPP shall include the following components:

- a. Prior to the onset of any construction activities, high visibility orange construction fencing shall be installed around existing stands and individuals that are to be retained at a buffer/extent radius of six feet beyond the canopy dripline, wherever the topography allows for such fencing or otherwise marked in the field to protect them from harm during grading and construction.
- b. No construction equipment shall be parked, stored, or operated within 25 feet of any protected tree dripline.
- c. No fill soil, rocks, or construction materials shall be stored or placed within 25 feet of the dripline of a protected tree.

- d. No artificial surface, pervious or impervious, shall be placed within 25 feet of the dripline of any protected tree, except for County-approved project access roads.
- e. Any roots encountered that are one inch in diameter or greater shall be cleanly cut. This shall be done under the direction of a County-approved arborist/biologist.
- f. Any construction activity required within three feet of a protected tree's dripline shall be done with hand tools.
- g. No permanent irrigation shall occur within the dripline of any existing protected tree.
- h. Only designated trees shall be removed. All grading and construction plans shall clearly delineate those trees to be removed and those to remain.

If avoidance of oak trees is not feasible, the County shall also implement mitigation measure BIO-4 below.

Plan Requirements and Timing. The County-approved biologist and/or arborist shall submit the TPP to the County. The County shall include as notes or depictions all plan components listed above, graphically depicting all those related to earth movement, construction, and temporarily and/or permanently installed protection measures that are indicated in the TPP. The construction contractor shall install the tree protection measures indicated in the TPP and project plans prior to the initiation of on-site project activities.

Monitoring. The County shall demonstrate that trees identified for protection were not damaged or removed or, if damage or removal occurred, that replacement is completed as required by the TPP prior to final building inspection clearance.

BIO-4 Tree Replacement Plan (Also Implements OCP EIR BIO-26)

If protected oak trees will be removed, a Tree Replacement Plan shall be prepared by a certified arborist or landscape architect. The tree replacement plan shall be designed to replace native trees removed by the proposed project at a ratio of 10:1 (trees planted: trees impacted) for protected oak trees. Upon final design, the County or County-approved biologist and/or arborist shall determine the final impacts to protected trees and the subsequent number of replacement plantings needed for restoration for the project. Replacement trees shall be installed on-site. Monitoring of planted trees shall be for a minimum of seven years or until stasis has been determined by a certified arborist. The plan shall include the following components at a minimum:

- a. Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type);
- b. Goal(s) of the compensatory mitigation project;
- c. Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values);
- d. Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan [including species to be used and container sizes]);
- e. Maintenance activities during the monitoring period, including weed removal and irrigation as appropriate (activities, responsible parties, schedule);
- f. Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target

- acres to be established, restored, enhanced, and/or preserved, annual monitoring reports);
- g. Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80 percent survival of container plants;
 - h. An adaptive management program and remedial measures to address any shortcomings in meeting success criteria;
 - i. Notification of completion of compensatory mitigation; and
 - j. Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism).

Plan Requirements and Timing. The County-approved biologist and/or arborist shall submit the Tree Replacement Plan to the County. Plan components shall be included on grading and landscaping plans.

Monitoring. The County shall demonstrate that all required components of the approved Tree Replacement Plan are in place as required prior to final inspection clearance and maintained throughout maintenance period.

Implementation of these recommended mitigation measures would reduce the potential for project-related impacts to protected trees to less than significant levels.

5.6 Adopted or Approved Plans

The proposed project would have a significant effect on biological resources if it would:

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

The project site is not located within an area with an adopted HCP or NCCP; therefore, there would be no conflicts with an adopted or approved plan. Therefore, no measures are recommended.

6 Limitations, Assumptions, and Use Reliance

This BRA has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis, or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDDB, may vary with regard to accuracy and completeness. In particular, the CNDDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

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Appendix A

Regulatory Setting

Regulatory Setting

Special-status habitats are vegetation types, associations, or sub-associations that support concentrations of special-status plant or animal species, are of relatively limited distribution, or are of particular value to wildlife.

Listed species are those taxa that are formally listed as endangered or threatened by the federal government (e.g., U.S. Fish and Wildlife Service [USFWS]), pursuant to the Federal Endangered Species Act (FESA) or as endangered, threatened, or rare (for plants only) by the State of California (i.e., California Fish and Game Commission), pursuant to the California Endangered Species Act or the California Native Plant Protection Act. Some species are considered rare (but not formally listed) by resource agencies, organizations with biological interests/expertise (e.g., Audubon Society, CNPS, The Wildlife Society), and the scientific community.

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States);
- Central Coast Regional Water Quality Control Board (waters of the State);
- U.S. Fish and Wildlife Service (federally listed species and migratory birds);
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; Species of Special Concern; nesting birds);
- County of Santa Barbara

U.S. Army Corps of Engineers

Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) has authority to regulate activities that could discharge fill of material into wetlands or other “waters of the United States.” Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters (typically a navigable water). The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland value or acres. In achieving the goals of the Clean Water Act, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any fill of wetlands that are hydrologically connected to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetland acres or values is met through avoidance and minimization to the extent practicable, followed by compensatory mitigation involving creation or enhancement of similar habitats.

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Board (RWQCB) have jurisdiction over “waters of the State,” pursuant to the Porter-Cologne Water Quality Control Act, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements (WDRs) regarding discharges to “isolated” waters of the State (Water Quality Order No. 2004-0004-

DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction). The RWQCB administers actions under this general order for isolated waters not subject to federal jurisdiction, and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the Clean Water Act for waters subject to federal jurisdiction.

United States Fish and Wildlife Service

The USFWS implements the Migratory Bird Treaty Act (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the Federal Endangered Species Act (FESA) (16 USC § 153 et seq.). Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in “take” of any federally threatened or endangered species are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. “Take” under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California. The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is restricted to direct mortality of a listed species and the law does not prohibit indirect harm by way of habitat modification. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated.

The CDFW also enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibits take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided.

California Fish and Game Code sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act. CDFW administers these requirements.

Species of Special Concern (SSC) is a category used by the CDFW for those species which are considered to be indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The SSC category is intended by the CDFW for use as a management tool to include these species in special consideration when decisions are made concerning the development of natural lands. The CDFW also has authority to

administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA's permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Perennial, intermittent, and ephemeral streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Section 1600 *et seq.* of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over activities that divert, obstruct, or alter the channel, bed, or bank of any river, stream or lake.

Local Jurisdiction

Santa Barbara County (County) has guidelines for evaluation of biological impacts and significance thresholds for projects in the County and are described in the County's *Environmental Thresholds and Guidelines Manual* (County Guidelines; October 2008, revised July 2015) and *A Planner's Guide to Conditions of Approval and Mitigation Measures* (2005).

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Appendix B

Site Photographs



Photograph 1: View of non-native annual grassland habitat and eucalyptus grove (aspect: west; July 8, 2021).



Photograph 2. View of eucalyptus grove habitat (aspect: southwest; July 8, 2021).



Photograph 3. View of iceplant mat/ landscaped area. Coast live oak seen on the left (aspect: east; July 8, 2021).



Photograph 4. View of the road shoulder/ disturbed area. Coast live oak seen in foreground (aspect: west; July 8, 2021).



Photograph 5. View of the eastern edge of the project area (aspect: north; July 8, 2021).



Photograph 6. View of non-native annual grassland habitat (aspect: south; July 8, 2021).

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Appendix C

Floral and Faunal Compendium

Plant Species Observed Within the Study Area on July 8, 2021

Scientific Name	Common Name	Status	Native or Introduced
<i>Avena fatua</i>	wild oat	None	Introduced; Cal-IPC Moderate*
<i>Bromus diandrus</i>	ripgut brome	None	Introduced; Cal-IPC Moderate
<i>Carpobrotus edulis</i>	iceplant	None	Introduced; Cal-IPC High
<i>Croton californicus</i>	dove weed	None	Native
<i>Datura stramonium</i>	jimsonweed	None	Introduced
<i>Ehrharta calycina</i>	perennial veldt grass	None	Introduced; Cal-IPC High
<i>Erodium brachycarpum</i>	filaree	None	Introduced
<i>Eschscholzia californica</i>	California poppy	None	Native
<i>Eucalyptus globulus</i>	blue gum	None	Introduced; Cal-IPC Limited
<i>Heterotheca grandiflora</i>	telegraph weed	None	Native
<i>Raphanus sativus</i>	wild radish	None	Introduced; Cal-IPC Limited
<i>Quercus agrifolia</i>	coast live oak	None	Native

*Cal-IPC – California Invasive Plant Council

Animal Species Observed Within the Study Area on July 8, 2021

Family	Scientific Name	Common Name
Accipitridae	<i>Buteo jamaicensis</i>	Red tail hawk
Trochilidae	<i>Calypte anna</i>	Anna's Hummingbird
Geomysidae	<i>Thomomys</i> sp.	Gopher burrows
Phrynosomatidae	<i>Sceloporus occidentalis</i>	Fence lizard

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Appendix D

Special Status Species Evaluation Table

Special Status Plant and Animal Species in the Regional Vicinity of the Project Site

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Plants and Lichens				
<i>Abronia maritima</i> red sand-verbena	None/None G4/S3? 4.2	Perennial herb, blooms Feb-Nov. Occurs in coastal dunes of central and southern California, as well as the Channel Islands. Formerly fairly widespread, but available habitat has decreased, especially in Southern California. Under 100m.	None	No suitable coastal dunes present on BSA. Species not expected to occur.
<i>Agrostis hooveri</i> Hoover's bent grass	None/None G2/S2 1B.2	Usually occurs on sandy substrates within closed-cone coniferous forest, chaparral, cismontane woodland, and valley and foothill grassland. Species blooms from Apr to Jul and typically occurs at elevations ranging from 6-610m.	Low	Marginal habitat present in grassland habitat on-BSA; however, this species was not observed during survey which occurred during the bloom period for this species. Therefore, species not expected to occur.
<i>Amsinckia douglasiana</i> Douglas' fiddleneck	None/None G4/S4 4.2	Cismontane woodland, valley and foothill grassland. Monterey shale; dry habitats. 0-1950m. Blooms Mar-May.	Low	Marginally suitable habitats present on BSA due to the existing disturbances occurring on site. This species was not observed during site surveys. Species not expected to occur.
<i>Aphanisma blitoides</i> aphanisma	None/None G3G4/S2 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. On bluffs and slopes near the ocean in sandy or clay soils. 1-305m. Blooms Feb-Jun.	None	BSA too far inland; species is known from immediate coast. Was not observed during site visits which occurred during the bloom period. Species not expected to occur.
<i>Arctostaphylos obispoensis</i> Bishop manzanita	None/None G3/S3 4.3	Chaparral, cismontane woodland, closed-cone coniferous forest. Rocky, serpentine sites. 150-1005m. Blooms Feb-Jun.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Arctostaphylos pilosula</i> Santa Margarita manzanita	None/None G2?/S2? 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, Closed-cone coniferous forest. Shale outcrops & slopes; reported growing on decomposed granite or sandstone. 75-1100m. Blooms Dec-May.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Arctostaphylos purissima</i> La Purisima manzanita	None/None G2/S2 1B.1	Chaparral, coastal scrub. Sandstone outcrops, sandy soil. 60-390m. Blooms Nov-May.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Arctostaphylos refugioensis</i> Refugio manzanita	None/None G3/S3 1B.2	Chaparral on sandstone. 274-820m. Blooms (May) Dec-Mar.	None	No suitable chaparral habitat present on BSA. Species not expected to occur.

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<i>Arctostaphylos rudis</i> sand mesa manzanita	None/None G2/S2 1B.2	Chaparral, coastal scrub. On sandy soils in Lompoc/Nipomo area. 25-322m. Blooms Nov-Feb.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Arenaria paludicola</i> marsh sandwort	FE/SE G1/S1 1B.1	Occurs in sandy substrates and openings within freshwater or brackish marshes and swamps. This species blooms between May and Aug, and typically occurs at elevations ranging from 3-170m.	None	No suitable aquatic habitat present on BSA. Species not expected to occur.
<i>Astragalus didymocarpus</i> var. <i>milesianus</i> Miles' milk-vetch	None/None G5T2/S2 1B.2	Occurs in clay substrates within coastal scrub. This species blooms between Mar and Jun, and typically occurs at elevations ranging from 20-90m.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Astragalus nuttallii</i> var. <i>nuttallii</i> ocean bluff milk-vetch	None/None G4T4/S4 4.2	Coastal bluff scrub, coastal dunes. 3-120m. Blooms Jan-Nov.	None	No suitable coastal dunes or scrub present within BSA. Species not expected to occur.
<i>Atriplex serenana</i> var. <i>davidsonii</i> Davidson's saltscare	None/None G5T1/S1 1B.2	Annual herb. blooms Apr to Oct. Coastal bluff scrub, coastal scrub. Alkaline soil. 3-250m.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Calystegia subacaulis</i> ssp. <i>episcopalis</i> Cambria morning-glory	None/None G3T2?/S2? 4.2	Usually occurs in clay substrates within chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland. This species blooms between Mar and Jul, and typically occurs at elevations ranging from 5-500m.	None	Suitable soils absent on BSA. Species not expected to occur.
<i>Castilleja densiflora</i> var. <i>obispoensis</i> San Luis Obispo owl's-clover	None/None G5T2/S2 1B.2	Meadows and seeps, valley and foothill grassland. Sometimes on serpentine. 10-430m. Blooms Mar-May.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Ceanothus cuneatus</i> var. <i>fascicularis</i> Lompoc ceanothus	None/None G5T4/S4 4.2	Chaparral. Sandy soils. 5-400m. Blooms Feb-Apr.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Ceanothus gloriosus</i> var. <i>gloriosus</i> Point Reyes ceanothus	None/None G4T4/S4 4.3	Closed-cone coniferous forest, Coastal bluff scrub, coastal dunes, coastal scrub. Usually on bluffs along the coast in sandy soils, but also known from more inland sites. 5-520m. Blooms Mar-May.	None	No suitable habitat within BSA. Species not expected to occur.

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<i>Ceanothus impressus</i> var. <i>impressus</i> Santa Barbara ceanothus	None/None G3T3/S3 1B.2	Chaparral. Sandy.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Ceanothus impressus</i> var. <i>nipomensis</i> Nipomo Mesa ceanothus	None/None G3T2/S2 1B.2	Chaparral. Sandy.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Chenopodium littoreum</i> coastal goosefoot	None/None G1/S1 1B.2	Occurs in coastal dunes. Species blooms between Apr and Aug, and typically occurs at elevations ranging from 10-30m.	None	BSA is much farther inland than species typically occurs. No suitable habitat within BSA. Species not expected to occur.
<i>Chorizanthe palmeri</i> Palmer's spineflower	None/None G4/S4 4.2	Chaparral, cismontane woodland, Valley and foothill grassland. Dry, rocky places and hillsides. Serpentine substrates. 55-945m. Blooms Apr-Aug.	None	Suitable soils absent. Not observed. Species not expected to occur.
<i>Chorizanthe rectispina</i> straight-awned spineflower	None/None G2/S2 1B.3	Chaparral, cismontane woodland, coastal scrub. Often on granite in chaparral. 85-1035m. Blooms Apr-Jul.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Cicuta maculata</i> var. <i>bolanderi</i> Bolander's water-hemlock	None/None G5T4T5/S2? 2B.1	Marshes and swamps. In fresh or brackish water. 0-200m. Blooms Jul-Sep.	None	No suitable habitat present due to lack of marshes or swamps. Species not expected to occur.
<i>Cirsium rhotophilum</i> surf thistle	None/ST G1/S1 1B.2	Coastal bluff scrub, Coastal dunes. Open areas in central dune scrub; usually in coastal dunes. 3-60m. Blooms Apr-Jun.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Cirsium scariosum</i> var. <i>loncholepis</i> La Graciosa thistle	FE/ST G5T1/S1 1B.1	Cismontane woodland, coastal dunes, coastal scrub, marshes and swamps, Valley and foothill grassland. Lake edges, riverbanks, other wetlands; often in dune areas. Mesic, sandy sites. 4-220m. Blooms May-Aug.	None	No suitable habitat present on BSA due to lack of mesic soils. Species not observed or expected to occur.
<i>Cladium californicum</i> California saw-grass	None/None G4/S2 2B.2	Marshes and swamps, Meadows and seeps. Freshwater or alkaline moist habitats. - 60-1600m. Blooms Jun-Sep.	None	No suitable habitat present on BSA due to lack of meadows, seep, marshes or swamps. Species not observed or expected to occur.
<i>Clarkia speciosa</i> ssp. <i>immaculata</i> Pismo clarkia	FE/SR G4T1/S1 1B.1	Chaparral, cismontane woodland, valley and foothill grassland. On ancient sand dunes not far from the coast. Sandy soils; openings. 25-185m. Blooms May-Jul.	None	No suitable ancient sand dune habitat present on BSA. Species not expected to occur.

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<i>Convolvulus simulans</i> small-flowered morning-glory	None/None G4/S4 4.2	Chaparral, coastal scrub, valley and foothill grassland. Wet clay, serpentine ridges. 30-740m. Blooms Mar-Jul.	None	No suitable habitat present on BSA due to lack of clay and serpentine soils. Species not expected to occur.
<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i> seaside bird's-beak	None/SE G5T2/S2 1B.1	Chaparral, cismontane woodland, closed-cone coniferous forest, coastal dunes, coastal scrub. Sandy, often disturbed sites, usually within chaparral or coastal scrub. 0-515m. Blooms Apr-Oct.	None	Suitable habitat present on BSA. This species is not known to occur in the Santa Maria/Orcutt area (Calflora 2021). Therefore, species not expected to occur.
<i>Deinandra increscens</i> ssp. <i>villosa</i> Gaviota tarplant	FE/SE G4G5T2/S2 1B.1	Coastal bluff scrub, coastal scrub, valley and foothill grassland. Known from coastal terrace near Gaviota; sandy blowouts amid sandy loam soil; grassland/coast scrub ecotone. 20-430m. Blooms May-Oct.	None	Suitable grassland habitat present. However, the BSA is not located in coastal terraces. Therefore, species not expected to occur.
<i>Deinandra paniculata</i> paniculate tarplant	None/None G4/S4 4.2	Coastal scrub, valley and foothill grassland, vernal pools. Usually in vernal mesic sites. Sometimes in vernal pools or on mima mounds near them. 25-940m. Blooms (Mar)Apr-Nov.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Delphinium parryi</i> ssp. <i>blochmaniae</i> dune larkspur	None/None G4T2/S2 1B.2	Chaparral, coastal dunes. On rocky areas and dunes. 0-200m. Blooms Apr-Jun.	None	No suitable habitat present due to lack of maritime chaparral or coastal dunes. Species not expected to occur.
<i>Dichondra occidentalis</i> western dichondra	None/None G3G4/S3S4 4.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. On sandy loam, clay, and rocky soils. 50-500m. Blooms (Jan)Mar-Jul.	None	No suitable soils are present within the BSA. Species not expected to occur.
<i>Dithyrea maritima</i> beach spectaclepod	None/ST G1/S1 1B.1	Occurs in coastal dunes and sandy substrates within coastal scrub sand dunes and other sandy soils near the seashore. This species blooms between Mar and May, and typically occurs at elevations ranging from 3-50m.	None	Range is restricted to the immediate coast. No suitable habitat within BSA. Species not expected to occur.
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> Blochman's dudleya	None/None G3T2/S2 1B.1	Occurs in rocky, often clay or serpentinite substrates within coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland. This species blooms between Apr and Jun, and typically occurs at elevations ranging from 5-450m.	None	Suitable soils absent. Species not expected to occur.

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<i>Eleocharis parvula</i> small spikerush	None/None G5/S3 4.3	Marshes and swamps. In coastal salt marshes. 1-3020m. Blooms (Apr)Jun-Aug (Sep).	None	No suitable marsh habitat present. Species not expected to occur.
<i>Erigeron blochmaniae</i> Blochman's leafy daisy	None/None G2/S2 1B.2	Coastal dunes, coastal scrub. Sand dunes and hills. 3-45m. Blooms Jun-Aug.	None	BSA outside of known elevational range for species No suitable habitat within BSA. Species not expected to occur.
<i>Erigeron sanctarum</i> saints' daisy	None/None G3/S3 4.2	Chaparral, cismontane woodland, coastal scrub. 75-350m. Blooms Mar-Jul.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Eriodictyon capitatum</i> Lompoc yerba santa	FE/SR G2/S2 1B.2	Chaparral, closed-cone coniferous forest, coastal bluff scrub. Sandy soils on terraces. 40-900m. Blooms May-Sep.	None	No suitable habitat type present due to lack of coniferous forest and maritime chaparral. Species not expected to occur.
<i>Eriogonum elegans</i> elegant wild buckwheat	None/None G4G5/S4S5 4.3	Cismontane woodland, valley and foothill grassland. Usually in sandy or gravelly substrates; often in washes, sometimes roadsides. 200-1525m. Blooms May-Nov.	None	Suitable habitat types found on site, however BSA outside know elevational range of species and no washes occur on site. Species not expected to occur.
<i>Erysimum capitatum</i> var. <i>lompocense</i> San Luis Obispo wallflower	None/None G5T3/S3 4.2	Chaparral, coastal scrub. Sandy hillsides and mesas. 60-500m. Blooms Feb-May.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Erysimum suffrutescens</i> suffrutescent wallflower	None/None G3/S3 4.2	Chaparral, coastal bluff scrub, coastal dunes, coastal scrub, and bluffs. 0-150m. Blooms Jan-Jul (Aug).	None	No suitable habitat within BSA. Species not expected to occur.
<i>Gilia ochroleuca</i> ssp. <i>lanosa</i> sisquoc gilia	None/None G4T3/S3 4.3	Chaparral, cismontane woodland, pinyon and juniper woodland. Gravelly (rarely), Sandy, streambanks (sometimes) 450-1480m. Blooms (Apr) May-Jun.	None	No suitable habitat present. Species not expected to occur.
<i>Gilia tenuiflora</i> ssp. <i>amplifaucalis</i> trumpet-throated gilia	None/None G3G4T3/S3 4.3	Cismontane woodland, valley and foothill grassland. Sandy soils of dry creeks, floodplains, and slopes. 390-900m. Blooms Mar-Apr.	None	No suitable habitat present. Species not expected to occur.
<i>Horkelia cuneata</i> var. <i>puberula</i> mesa horkelia	None/None G4T1/S1 1B.1	Perennial herb. Blooms February to September. Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 70-810m (230-2655ft).	None	No suitable habitat present. Species not expected to occur.
<i>Horkelia cuneata</i> var. <i>sericea</i> Kellogg's horkelia	None/None G4T1?/S1? 1B.1	Chaparral, closed-cone coniferous forest, coastal dunes, coastal scrub. Old dunes, coastal sandhills; openings. Sandy or gravelly soils. 10-200m. Blooms Apr-Sep.	None	Uncommon south of San Luis Obispo County and Santa Barbara County. No suitable habitat present. Species not expected to occur.

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<i>Juglans californica</i> Southern California black walnut	None/None G4/S4 4.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland. Slopes, canyons, alluvial habitats. 50-900m. Blooms Mar-Aug.	None	No suitable habitat within BSA. Species not expected to occur.
<i>Juncus acutus</i> ssp. <i>leopardii</i> southwestern spiny rush	None/None G5T5/S4 4.2	Coastal dunes, marshes and swamps, meadows and seeps. Moist saline places. 3-900m. Blooms (Mar)May-Jun.	None	No suitable habitat type present. Species not expected to occur.
<i>Layia carnosa</i> beach layia	FE/SE G2/S2 1B.1	Coastal dunes, coastal scrub. On sparsely vegetated, semi-stabilized dunes, usually behind foredunes. 0- 60m. Blooms Mar-Jul.	None	Site is too far inland; species is known from dunes at the immediate coast. Species not expected to occur.
<i>Layia heterotricha</i> pale-yellow layia	None/None G2/S2 1B.1	Cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. Alkaline or clay soils; open areas. 300-1705m. Blooms Mar-Jun.	None	No suitable soil types on site. Not known to occur in the Santa Maria Valley. Species not expected to occur.
<i>Leptosiphon</i> <i>grandiflorus</i> large-flowered leptosiphon	None/None G3G4/S3S4 4.2	Cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub, valley and foothill grassland. Open, grassy flats, generally sandy soil. 5-1220m. Blooms Apr-Aug.	Low	Marginal habitat, due to disturbance, present in grassland habitat on-BSA.
<i>Lessingia tenuis</i> spring lessingia	None/None G4/S4 4.3	Chaparral, cismontane woodland, lower montane coniferous forest. Openings. 300-2150m. Blooms May-Jul.	None	No suitable habitat type present. Species not expected to occur.
<i>Lupinus</i> <i>ludovicianus</i> San Luis Obispo County lupine	None/None G1/S1 1B.2	Chaparral, cismontane woodland. Open areas in sandy soil, Santa Margarita formation. 50-525m. Blooms Apr-Jul.	None	The site is outside known range of this species. Species not expected to occur.
<i>Lupinus</i> <i>nipomensis</i> Nipomo Mesa lupine	FE/SE G1/S1 1B.1	Coastal dunes. Dry sandy flats, restricted to back dunes, associated with central dune scrub habitat - a rare community type. 10-50m. Blooms Dec-May.	None	No suitable habitat present. Species not expected to occur.
<i>Malacothamnus</i> <i>gracilis</i> slender bush- mallow	None/None G1Q/S1 1B.1	Chaparral. Dry, rocky slopes. 190- 575m. Blooms May-Oct.	None	No suitable habitat present. BSA outside known elevational range of species. Species not expected to occur.
<i>Malacothamnus</i> <i>jonesii</i> Jones' bush- mallow	None/None G4/S4 4.3	Chaparral, cismontane woodland. 160-1075m. Blooms (Mar) Apr-Oct.	None	No suitable habitat present. BSA outside known elevational range of species. Species not expected to occur.

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<i>Malacothrix incana</i> dunedelion	None/None G3G4/S3S4 4.3	Coastal dunes, coastal scrub. On flats and slopes, as well as unstabilized dunes near the ocean. 2-35m. Blooms (Jan) Apr-Oct.	None	Species occurs in dunes at the immediate coast. Dune habitat is not present. Species not expected to occur.
<i>Monardella sinuata</i> ssp. <i>sinuata</i> southern curly-leaved monardella	None/None G3T2/S2 1B.2	Chaparral, cismontane woodland, coastal dunes, coastal scrub. Sandy soils. 0-300m. Blooms Apr-Sep.	None	No suitable habitat present. Species not expected to occur.
<i>Monardella undulata</i> ssp. <i>crispa</i> crisp monardella	None/None G3T2/S2 1B.2	Coastal dunes, coastal scrub. Often on the borders of open, sand areas, usually adjacent to typical backdune scrub vegetation. 10-120m. Blooms Apr-Aug (Dec).	None	This subspecies occurs at the immediate coast. Suitable dune habitat not present. Species not expected to occur.
<i>Monardella undulata</i> ssp. <i>undulata</i> San Luis Obispo monardella	None/None G2/S2 1B.2	Coastal dunes, coastal scrub. Stabilized sand of the immediate coast. 10-200m. Blooms May-Sep.	None	Outside known range of this species. This subspecies is restricted to San Luis Obispo County. Species not expected to occur.
<i>Mucronea californica</i> California spineflower	None/None G3/S3 4.2	Chaparral, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland. Sandy soil. 0-1400m. Blooms Mar-Jul (Aug).	Low	Marginal habitat, due to disturbance, present in grassland habitat on-BSA
<i>Muhlenbergia utilis</i> aparejo grass	None/None G4/S2S3 2B.2	Chaparral, cismontane woodland, coastal scrub, marshes and swamps, meadows and seeps. Alkaline (sometimes), serpentinite (sometimes) 25-2325m. Blooms Mar-Oct.	None	No suitable habitat present. Species not expected to occur.
<i>Nasturtium gambelii</i> Gambel's water cress	FE/ST G1/S1 1B.1	Marshes and swamps. Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. 5-330m. Blooms Apr-Oct.	None	No suitable habitat present. Species not expected to occur.
<i>Nemacaulis denudata</i> var. <i>denudata</i> coast woolly-heads	None/None G3G4T2/S2 1B.2	Coastal dunes. 0-100m. Blooms Apr-Sep.	None	No suitable dune habitat present. Species not expected to occur.
<i>Orobanche parishii</i> ssp. <i>brachyloba</i> short-lobed broomrape	None/None G4?T4/S3 4.2	Coastal bluff scrub, coastal dunes, coastal scrub. Sandy soil near beaches; reported to grow on <i>Isocoma menziesii</i> and other shrubs. 3-305m. Blooms Apr-Oct.	None	No suitable dune habitat present. Species not expected to occur.
<i>Prunus fasciculata</i> var. <i>punctata</i> sand almond	None/None G5T4/S4 4.3	Chaparral, cismontane woodland, coastal dunes, coastal scrub. Sandy flats. 15-200m. Blooms Mar-Apr.	None	No suitable habitat present. Species not expected to occur.

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<i>Scrophularia atrata</i> black-flowered figwort	None/None G2?/S2? 1B.2	Chaparral, closed-cone coniferous forest, coastal dunes, coastal scrub, riparian scrub. Sand, diatomaceous shales, and soils derived from other parent material; around swales and in sand dunes. 10-500m. Blooms Mar-Jul.	None	No suitable habitat type present. Species not expected to occur.
<i>Senecio blochmaniae</i> Blochman's ragwort	None/None G3/S3 4.2	Coastal dunes. 0-100m. Blooms May-Oct.	None	No suitable habitat type present. Species not expected to occur.
<i>Symphyotrichum defoliatum</i> San Bernardino aster	None/None G2/S2 1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, meadows and seeps, valley and foothill grassland. Vernal mesic grassland or near ditches, streams and springs; disturbed areas. 2-2040m. Blooms Jul-Nov.	None	No suitable habitat present. Species not expected to occur.
Invertebrates				
<i>Ablautus schlingeri</i> Oso Flaco robber fly	None/None G1/S1	Sand dunes.	None	No suitable dune habitat present. Species not expected to occur.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the central valley, central coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	None	No suitable aquatic habitat present on BSA. Species not expected to occur.
<i>Danaus plexippus pop. 1</i> monarch - California overwintering population	FC/None G4T2T3/S2S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Low	Surrounding eucalyptus is marginally suitable winter roosting habitat. Not expected to overwinter on-site. No CNDDDB occurrences or known roosting observations are documented for this site.

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Fish				
<i>Eucyclogobius newberryi</i> tidewater goby	FE/None G3/S3	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	None	No suitable aquatic habitat present on BSA. Species not expected to occur.
<i>Gasterosteus aculeatus williamsoni</i> unarmored threespine stickleback	FE/SE G5T1/S1 FP	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small southern California streams. Cool (<24 °C), clear water with abundant vegetation.	None	No suitable aquatic habitat present on BSA. Species not expected to occur.
<i>Gila orcuttii</i> arroyo chub	None/None G2/S2 SSC	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave & San Diego river basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	None	No suitable aquatic habitat present on BSA. Species not expected to occur.
<i>Oncorhynchus mykiss irideus</i> steelhead - southern California DPS	FE/None G5T1Q/S1	Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County). Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions.	None	No suitable aquatic habitat present on BSA. Species not expected to occur.
Amphibians				
<i>Ambystoma californiense</i> California tiger salamander	FT/ST G2G3/S2S3 WL	Central California DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	None	No suitable breeding habitat present on BSA. The BSA is not located within a California tiger salamander metapopulation area . The BSA is outside the range of the species. BSA isolated by residential development. Not expected to occur.
<i>Anaxyrus californicus</i> arroyo toad	FE/None G2G3/S2S3 SSC	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	None	No suitable washes, intermittent streams, pools and sandy terraces with emergent vegetation present on BSA. Species not expected to occur.

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<i>Rana boylei</i> foothill yellow-legged frog	None/SE G3/S3 SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	None	No suitable aquatic habitat present on BSA. Species not expected to occur.
<i>Rana draytonii</i> California red-legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	None	No suitable aquatic habitat present on BSA. Vegetation communities are generally suitable upland habitat but the BSA is beyond dispersal distance from breeding habitat. Species not expected to occur.
<i>Spea hammondi</i> western spadefoot	None/None G2G3/S3 SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Moderate	No suitable breeding habitat on BSA. Grasslands and the sandy soils could provide suitable upland refuge, and the site is located approximately 500 feet from a known breeding location. This species could disperse to the project site during the non-breeding season.
Reptiles				
<i>Anniella pulchra</i> Northern California legless lizard	None/None G3/S3 SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	Moderate	The shrubs and iceplant mats in the BSA provides potentially suitable habitat for <i>A. pulchra</i> . Species has a moderate potential to occur.
<i>Emys marmorata</i> western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 1830m elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	None	No suitable aquatic habitat present on BSA. Species not expected to occur.
<i>Phrynosoma blainvillii</i> coast horned lizard	None/None G3G4/S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Low	The vegetation within the BSA provides marginally suitable habitat for this species. The site is disturbed and located in a largely urban setting. This species is unlikely to occur.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
<i>Thamnophis hammondi</i> two-striped gartersnake	None/None G4/S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 2100m elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	None	No suitable aquatic habitat present on BSA. Species not expected to occur.
Birds				
<i>Accipiter striatus</i> sharp-shinned hawk	None/None G5/S4 WL	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes with plucking perches are critical requirements. Nests usually within 84m of water.	None	No suitable habitat present on BSA. Species not expected to occur.
<i>Agelaius tricolor</i> tricolored blackbird	None/ST G1G2/S1S2 SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	None	No suitable open water habitats such as marshes or ponds present on BSA. Species not expected to occur.
<i>Aimophila ruficeps canescens</i> southern California rufous- crowned sparrow	None/None G5T3/S3 WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	None	No suitable habitat present on BSA. Species not expected to occur.
<i>Athene cunicularia</i> burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low	Marginal habitat present within the BSA; however, this species was not observed during survey and no suitable burrows are present.
<i>Buteo swainsoni</i> Swainson's hawk	None/ST G5/S3	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Low	The site is outside the breeding range of the species. The species is highly migratory and encounters would be incidental as the species migrates between breeding and non-breeding sites.
<i>Charadrius nivosus</i> western snowy plover	FT/None G3T3/S2 SSC	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	None	No suitable coastal habitat present on BSA. Species not expected to occur.

County of Santa Barbara
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Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
<i>Eremophila alpestris actia</i> California horned lark	None/None G5T4Q/S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also, main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	None	No suitable habitat present on BSA. Species not expected to occur.
<i>Falco peregrinus anatum</i> American peregrine falcon	FD/SD G4T4/S3S4 FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Low	No suitable nesting habitat present on BSA. May occur transiently as individuals move through the region. Species not expected to occur.
<i>Laterallus jamaicensis coturniculus</i> California black rail	None/ST G3G4T1/S1 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	None	No suitable aquatic habitat present on BSA. Species not expected to occur.
<i>Setophaga petechia</i> yellow warbler	None/None G5/S3S4 SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	None	No suitable habitat present on BSA. Species not expected to occur.
<i>Sternula antillarum browni</i> California least tern	FE/SE G4T2T3Q/S2 FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	None	No suitable coastal habitat present on BSA. Species not expected to occur.
<i>Vireo bellii pusillus</i> least Bell's vireo	FE/SE G5T2/S2	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	None	No suitable habitat present on BSA. Species not expected to occur.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Mammals				
<i>Antrozous pallidus</i> pallid bat	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	None	No suitable roosting habitat or rocky areas present on BSA. Species not expected to occur.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls & ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	None	No suitable cavernous roosting areas present on BSA. Species not expected to occur.
<i>Lasiurus blossevillii</i> western red bat	None/None G4/S3 SSC	Roosts in trees in forests and woodlands of varying elevations. Forages in grasslands, shrublands, open woodlands and forests, and agriculture. Typically found in riparian habitats, does not occur in deserts.	None	No suitable roosting or foraging habitat present on BSA. No riparian habitats on site. Species not expected to occur.
<i>Taxidea taxus</i> American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low	Suitable soils and small rodent prey base present on BSA. No potential dens observed during site visit, however due to the small size of the project area and surrounding residential developments, species has low potential to occur.

County of Santa Barbara
Orcutt Fire Station Project

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Sensitive Natural Communities				
Central Dune Scrub	None/None G2/S2.2		None	Habitat does not occur on site.
Central Foredunes	None/None G1/S1.2		None	Habitat does not occur on site.
Coastal and Valley Freshwater Marsh	None/None G3/S2.1		None	Habitat does not occur on site.
Southern California Threespine Stickleback Stream	None/None GNR/SNR		None	Habitat does not occur on site.
Southern Vernal Pool	None/None GNR/SNR		None	Habitat does not occur on site.

Regional Vicinity refers to within a 9-quad search radius of site.

Status (Federal/State)

FE = Federal Endangered
 FT = Federal Threatened
 FPE = Federal Proposed Endangered
 FPT = Federal Proposed Threatened
 FD = Federal Delisted
 FC = Federal Candidate
 SE = State Endangered
 ST = State Threatened
 SCE = State Candidate Endangered
 SCT = State Candidate Threatened
 SR = State Rare
 SD = State Delisted
 SSC = CDFW Species of Special Concern
 FP = CDFW Fully Protected
 WL = CDFW Watch List

CRPR (CNPS California Rare Plant Rank)

1A = Presumed extirpated in California, and rare or extinct elsewhere
 1B = Rare, Threatened, or Endangered in California and elsewhere
 2A = Presumed extirpated in California, but common elsewhere
 2B = Rare, Threatened, or Endangered in California, but more common elsewhere
 3 = Need more information (Review List)
 4 = Limited Distribution (Watch List)

CRPR Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened/
 high degree and immediacy of threat)
 .2 = Moderately threatened in California (20-80% of occurrences threatened/
 moderate degree and immediacy of threat)
 .3 = Not very endangered in California (<20% of occurrences threatened/
 low degree and immediacy of threat)

Other Statuses

G1 or S1 Critically Imperiled Globally or Subnationally (state)
 G2 or S2 Imperiled Globally or Subnationally (state)
 G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
 G4/5 or S4/5 Apparently secure, common and abundant
 GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Appendix E

Preliminary Site Plan



OPTION - B

IT FIRE STATION

Attachment C

Cultural Resources Technical Study



Brookside Avenue Fire Station Project

Cultural Resources Technical Study

Confidential

prepared for

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August 2021



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Please cite this report as follows:

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Confidential Appendices

Appendix A	Records Search Summary
Appendix B	NAHC Sacred Lands File Search

Executive Summary

Rincon Consultants, Inc. (Rincon) was retained by the County of Santa Barbara to conduct a cultural resources technical study of the 4.6-acre project site (Assessor's Parcel Number (APN) 107-321-013) for the Brookside Avenue Fire Station Project (project) in the unincorporated community of Orcutt, county of Santa Barbara, California. The proposed project is subject to the California Environmental Quality Act (CEQA), with the County of Santa Barbara serving as lead agency.

This study includes a cultural resources records search, Sacred Lands File Search, Native American Contacts program and Assembly Bill (52) outreach, a pedestrian survey of the project site, and preparation of this report in accordance with the County of Santa Barbara Guidelines for Determining the Significance of and Impacts to Cultural Resources (2018). The cultural resources records search did not identify any previously recorded cultural resources within the current project site, and the field survey did not identify any cultural resources. Based on the results of the study, Rincon recommends a finding of **no impact to historical resources** under CEQA. The following measures are recommended in the case of the unanticipated discovery of cultural resources during the execution of the current undertaking.

Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service [NPS] 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

1 Introduction

Rincon Consultants, Inc. (Rincon) was retained by the County of Santa Barbara to conduct a cultural resources technical study for the Brookside Avenue Fire Station Project (project) in the unincorporated community of Orcutt, county of Santa Barbara, California. The project site (Assessor's Parcel Number [APN] 107-321-013) is a 4.6-acre vacant lot on West Union Valley Parkway (Figure 1). This cultural resources study includes a cultural resources records search, a Sacred Lands File Search and Native American contacts program, an intensive pedestrian survey, and the preparation of this technical report in accordance with the County of Santa Barbara Guidelines for Determining the Significance of and Impacts to Cultural Resources (2018) and is in compliance with the requirements of CEQA.

1.1 Project Description

The Santa Barbara County Fire Department proposes a new fire station on the project site. The proposed one-story fire station would be approximately 8,600 square feet in area. The maximum roof height would be 32 feet. The fire station would include three drive-through bays for fire trucks and associated apparatus. The fire station's interior uses would provide the following fire-fighting staff amenities: bedrooms with bathrooms, a communal kitchen, dining area, fire station captain's office, day room, workout area, laundry room with extractor units, among other amenities. The site would also include three driveways: one at the western terminus of Brookside Avenue and two along Union Valley Parkway. The emergency vehicles (i.e., fire engines and ambulances) would leave the proposed station and egress onto Union Valley Parkway. When the vehicles return to the station, they would ingress the project site via the second driveway along Union Valley Parkway. Fifteen parking spaces would be located on site, including two accessible spaces. The areas adjacent to and around the structure and exterior facilities would be landscaped with a mixture of native and drought tolerant plantings.

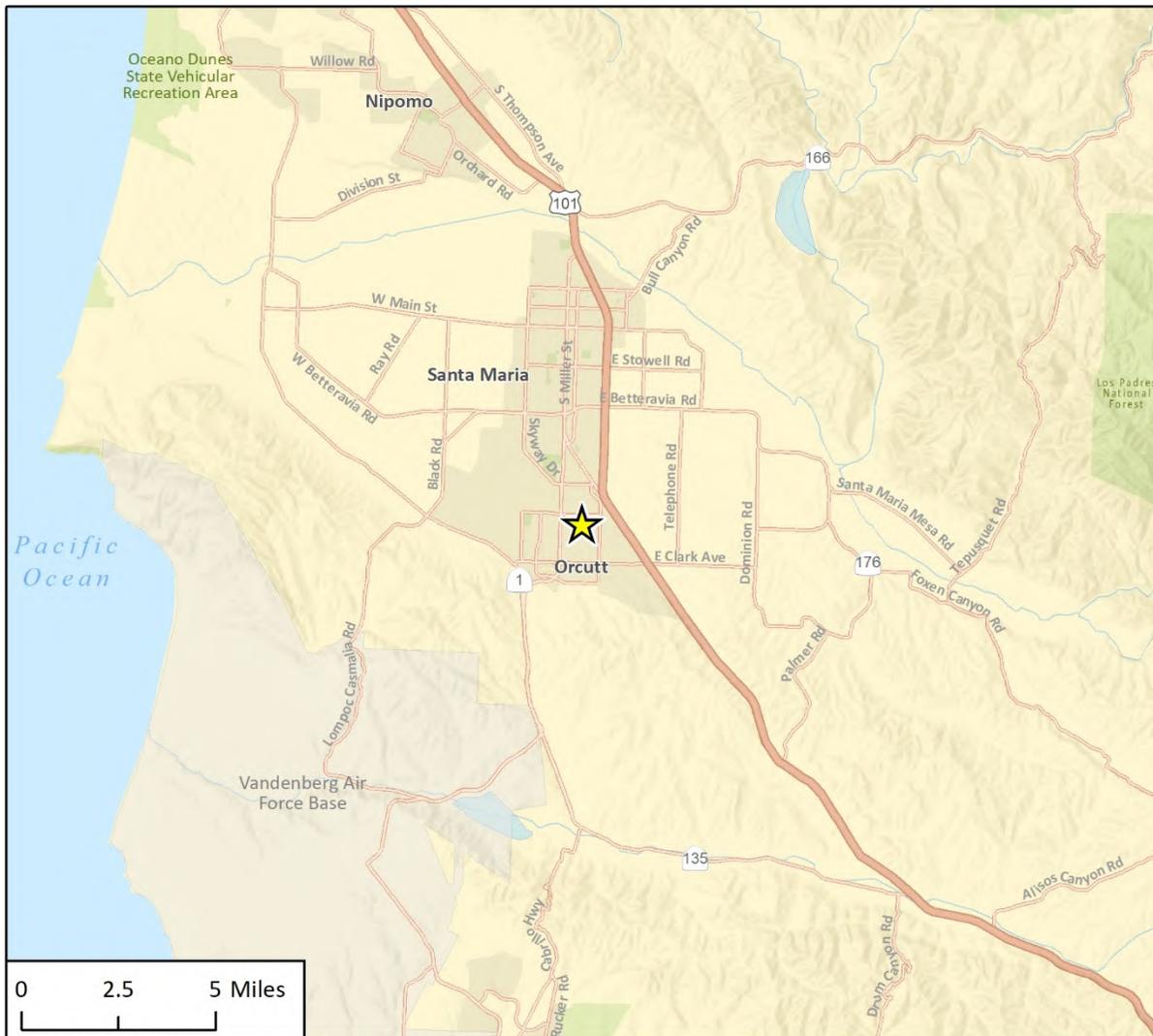
1.2 Project Location

The 4.6-acre project site is located at the western terminus of Brookside Avenue and north of West Union Valley Parkway in the unincorporated community of Orcutt in Santa Barbara County, just south of the city of Santa Maria. The project site is identified as Assessor's Parcel Number (APN) 107-321-013 and is currently vacant land with a eucalyptus grove in the northwestern portion of the site. The project site is located in an area that is primarily composed of residential and vacant land uses in Township 09N, Range 34W of the United States Geologic Survey (USGS) *Santa Maria, CA* 7.5-minute quadrangle (Figure 2). Properties in the vicinity include vacant, undeveloped land and single-family residences.

1.3 Personnel

Rincon Archaeologist Ryan Glenn, MA, Registered Professional Archaeologist (RPA), managed this study, conducted the Native American outreach and pedestrian survey, and served as primary author of this report. Andrew Pulcheon, M.A., RPA served as principal investigator for this study and coauthored this report. GIS Analyst Josh Patterson prepared the figures found in this report.

Figure 1 Project Location



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★ Project Location

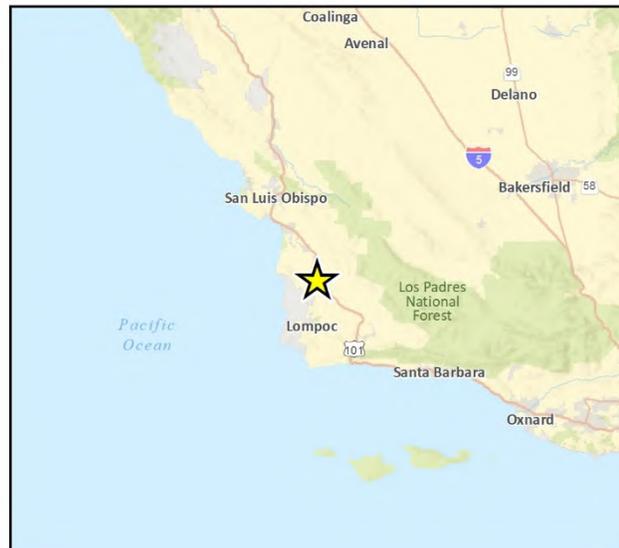


Fig. 1 Regional Location

Figure 2 Project Site



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2 Regulatory Setting

This section includes a discussion of the applicable state and local laws, ordinances, regulations, and standards governing cultural resources to which the proposed project should adhere before and during implementation.

2.1 State Regulations

2.1.1 California Environmental Quality Act

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

A resource shall be considered *historically significant* if it meets any of the following criteria:

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

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

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

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

2.1.2 Assembly Bill 52

A historical resource is one listed in or determined to be eligible for listing in the CRHR, a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (CEQA Guidelines

§15064.5[a] [1-3]). Section 15064.5(a)(3) also states that a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the CRHR.

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, “tribal cultural resources.” AB 52 establishes “a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (PRC Section 21084.2). It further states the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” and meets either of the following criteria:

- 1) Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k)
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

2.1.3 Codes Governing Human Remains

The disposition of human remains is governed by Health and Safety Code Section 7050.5 and PRC Sections 5097.94 and 5097.98 and falls within the jurisdiction of the NAHC. If human remains are discovered, the County Coroner must be notified within 48 hours and there should be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to PRC Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased Native Americans so they can inspect the burial site and make recommendations for treatment of the remains and associated grave goods.

2.2 County of Santa Barbara Regulations and Policies

The County of Santa Barbara Guidelines for Determining the Significance of and Impacts to Cultural Resources (2018:8-9) details the standard practices for conducting Phase I archaeological investigations. These efforts include a record search at the Central Coast Information Center (CCIC) and a pedestrian survey. The guidelines note that the pedestrian survey should be augmented with subsurface probing, known as an XPI survey, if an archaeological site has been identified within 100 meters of proposed project ground disturbance. If an XPI survey is within or near a prehistoric and/or Native American contact/historic archaeological site, a Native American monitor must be retained to observe the effort.

3 Natural and Cultural Setting

3.1 Natural Setting

The project site is located in northwest Santa Barbara County, approximately 0.41 miles west of the intersection of East Union Valley Parkway and South Brady Road, and approximately 12 miles east of the Pacific Ocean (Figure 2). The approximate center of the project site occurs at Universal Transverse Mercator coordinates Zone 10S, 753188.08 meters east, 3862760.01 meters north. The project site is in northern Santa Barbara County, south of the city of Santa Maria in the unincorporated community of Orcutt. This region is characterized by a mild, coastally influenced climate. On average, temperatures range from 53 degrees Fahrenheit (F) to 75 degrees F during the summer and from 38 degrees F to 64 degrees F during the winter months. On average, the warmest month is September, and the coolest month is January. The average annual precipitation in this region is 13.0 inches, with most of the precipitation typically occurring from December to March, and highest rainfall typically occurring in February (Western Regional Climate Center 2019). The topography of the project site is mostly flat, with the elevation at the approximate center of the Study Area of 423 feet (128 meters) above mean sea level. Project site is currently vacant, undeveloped land and adjacent land uses include vacant, undeveloped land and single-family residences.

3.2 Cultural Setting

Cultural resources include prehistoric resources, historic-period resources, and Native American resources. Prehistoric resources represent the remains of human occupation prior to European settlement. Historic-period resources represent remains after European settlement and may be part of a "built environment," including man-made structures used for habitation, work, recreation, education, and religious worship, and may also be represented by houses, factories, office buildings, schools, churches, museums, hospitals, bridges, and other structural remains. Native American or Tribal resources include ethnographic elements pertaining to Native American issues and values.

3.2.1 Prehistoric Setting

The County of Santa Barbara is located in what has been defined as the Northern California Bight (Northern Bight) archaeological region, one of eight organizational divisions of the state (Moratto 1984; Glassow et al. 2007; Moratto and Chartkoff 2007). The Northern Bight archaeological region encompasses the area from Vandenberg Air Force Base on the coast, south to Point Conception, including the Channel Islands, south along the coast to Rancho Palos Verdes, into the Los Angeles Basin, and north to the "northern margins of Ventura and Santa Barbara Counties" (Glassow et al. 2007:191).

Paleo-Coastal Tradition (ca. 12,000 – 9000 B.P. [Before Present])

The Paleo-Indian Period, also referred to as the Paleo-Coastal Tradition, defines the earliest human occupation of the Northern Bight, and describes the cultural trends and subsistence strategies of prehistoric populations from approximately 12,000 to 9000 BCE (Glassow et al. 2007). The Paleo-Indian Period in North America is largely recognized by projectile points associated with extinct large mammal remains, such as mammoth, bison, and dire wolves, particularly in the Southwest and

Plains regions (Reed 1992; Slaughter et al. 1992; Huckell 1996; Erlandson et al. 2007). These projectile points have been classified as the Clovis style, which exhibit a lanceolate shape with a flute initiated from the base that extends as far as the midline (Justice 2002; Hollenshead 2007).

The earliest accepted dates for human occupation in California were recovered from archaeological sites on two of the Northern Channel Islands, located off the southern coast of Santa Barbara County. The earliest radiocarbon dates known for the region, calibrated to approximately 11,000 years B.P., were derived from human remains and rodent bones recovered from within the same deposits on Santa Rosa Island (Johnson et al. 2002; Erlandson et al. 2007; Glassow et al. 2007). Archaeological deposits from the Daisy Cave site on San Miguel Island establishes the presence of people in this area approximately 10,000 years ago (Erlandson 1991; Erlandson et al. 2007). In San Luis Obispo County, archaeological sites CA-SLO-1764 (Lebow et al. 2001), Cross Creek (CA-SLO-1797; Fitzgerald 2000), and CA-SLO-832 (Jones et al. 2001) yielded radiocarbon dates from approximately 9,000 years ago (Jones and Ferneau 2002).

Recent data from Paleo-Indian sites in southern California indicate that the economy was a diverse mix of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas (e.g., Jones and Ferneau 2002; Erlandson et al. 2007). Archaeological deposits at the Daisy Cave site yielded an assemblage of “the oldest known fishhooks in the Americas” (Erlandson et al. 2007:57). Shell middens discovered on the mainland of California have also yielded dates from 10,000 to 9000 B.P. (Erlandson et al. 2007).

A fluted projectile point fragment was recovered from site CA-SBA-1951 on the Santa Barbara Channel coastal plain (Erlandson et al. 1987; Erlandson 1994). Another fluted projectile point was reportedly found on the surface in Nipomo, San Luis Obispo County (Mills et al. 2005; Rondeau et al. 2007). Large side-notched projectile points of the Central Coast Stemmed series in this area date to as early as 8,000 years ago (Justice 2002) suggesting some overlap with the Clovis type. Central Coast Stemmed projectile points have been recovered along the Central Coast, which is located immediately north of the Northern Bight region. These sites include Diablo Canyon (CA-SLO-2; Greenwood 1972), Cross Creek (CA-SLO-1797; Fitzgerald 2000), Little Pico Creek (CA-SLO-175; Jones and Waugh 1995), and the Honda Beach site (CA-SBA-530; Glassow 1997), among others. At the Metcalf site (CA-SCL-178), in southern Santa Clara Valley, Hildebrandt (1983) recovered two large side-notched points associated with charcoal dates ranging from 9,960 – 8,500 years ago.

Millingstone Horizon (ca. 9000 – 7000 B.P.)

It is generally accepted that human occupation of California originated from small, dispersed occupations during the Paleo-Indian period. Populations increased from the Paleo-Indian Period to the Millingstone Horizon, possibly as a result of an ecological adaptation to collecting plant resources. Rogers (1929) originally identified the Millingstone Horizon along the Santa Barbara Channel. Wallace (1955, 1978) further defined the period, noting the appearance and abundance of milling implements in archaeological sites from this period. The milling implements, including milling stones (e.g., metates, milling slabs) and hand stones (e.g., manos, mullers), are associated with the horizontal motion of grinding small seeds and nuts, and lend to the name Millingstone Horizon (Desautels and Leach 1978; Glassow et al. 2007).

These milling implements are particularly noted in archaeological sites along the coast of California and become even more prevalent near the end of the Horizon (Wallace 1955, 1978; Warren 1968; Desautels and Leach 1978). Excavations at the Tank Site (CA-LAN-1) in Topanga Canyon from 1947 to 1948 confirmed the presence of a significant number of milling implements that correspond with the Millingstone Horizon (Treganza and Bierman 1958). Although the milling implements suggest an

emphasis on seed and nut gathering, Millingstone populations likely employed a mixed food procurement strategy which included hunting. Flaked stone assemblages, which include crude core and cobble-core tools, flake tools, large side-notched projectile points, and pitted stones (Desautels and Leach 1978; Glassow et al. 2007; Jones et al. 2007), shell middens, and faunal remains in coastal Millingstone Period sites point to broad-spectrum hunting and gathering of shellfish, fish, birds, and mammals. This mixed food procurement strategy demonstrates adaptation to regional and local environments, lending to population increase.

Early Period (ca. 7000 – 4000 B.P.)

The Early Period of the Northern Bight is marked by a lower frequency of radiocarbon dated archaeological sites as well as changes in artifact forms. Differences in artifact forms, particularly in ground stone implements, likely represent changes in subsistence (Glassow et al. 2007). The material culture recovered from Early Period sites within the Northern Bight region provides evidence for continued exploitation of inland plant and coastal marine resource as well as the incorporation of “newly important food resources” found in specific habitats (Glassow et al. 2007:197). In addition to the use of metates and manos, prehistoric populations began to use mortars and pestles, such as those recovered from the Sweetwater Mesa (CA-LAN-267) and Aerophysics (CA-SBA-53) sites (Glassow et al. 2007).

Artifact assemblages recovered from Early Period sites also include bipointed bone gorge hooks used for fishing, Olivella beads, bone tools, and pendants made from soapstone. The frequency of projectile points in Early Period assemblages also increased, while the style began to change from lanceolate forms to side-notched forms (Glassow et al. 2007). This projectile point style trend, first identified by David Banks Rogers in 1929, was confirmed by Greenwood (1972) at Diablo Canyon. The projectile point trend has become apparent at numerous sites along the California coast as well as a few inland sites (e.g., CA-SBA-210 and CA-SBA-530). In many cases, manifestations of this trend are associated with the establishment of new and larger settlements, such as at the Aerophysics site (Glassow et al. 2007; Jones et al. 2007).

Middle Period (ca. 4000 – 2000 B.P.)

The Middle Period describes a pronounced trend toward greater adaptation to regional or local resources as well as the development of socioeconomic and political complexity in prehistoric populations (Glassow et al. 2007). The remains of fish, land mammals, and sea mammals are increasingly abundant and diverse in archaeological deposits along the coast.

Coastal populations developed shell fishhooks, and projectile points changed from side-notched dart points to contracting stem styles. Flaked stone tools used for hunting and processing—such as large side-notched, stemmed, lanceolate or leaf-shaped projectile points, large knives, edge modified flakes, and drill-like implements—occurred in archaeological deposits in higher frequencies and are more morphologically diversified during the Middle Period. Bone tools, including awls, are more numerous than in the preceding period, and the use of asphaltum adhesive became common. Circular fish hooks that date from between 3000 and 2500 B.P., compound bone fish hooks that date between 1700 and 1100 B.P., notched stone sinkers, and the tule reed or balsa raft, indicative of complex maritime technology, became part of the toolkit during this period (Kennett 1998; King 1990; Arnold 1995; Jones and Klar 2005; Glassow et al. 2007).

Populations continued to follow a seasonal settlement pattern until the end of the Middle Period; large, permanently occupied settlements with formal architecture, particularly in coastal areas, appear to have been the norm by the end of the Middle Period (Kennett 1998; Glassow et al. 2007).

Prehistoric populations began to bury the deceased in formal cemeteries with artifacts that may represent changes in ideology and the development of ritual practices (Glassow et al. 2007).

Middle – Late Transition Period (ca. 2000 – 1000 B.P.)

The Middle-Late Transition period is marked by major changes in settlement patterns, diet, and interregional exchange. Prehistoric populations continued to occupy more permanent settlements, with the continued use of formal, though crowded cemeteries and the burial of goods with the deceased. Burials are normally flexed, placed face down, and oriented toward the north or west (Warren 1968). The interments are typically marked by vertical pieces of whalebone, and have abundant grave goods, such as ornaments, effigies, and utensils.

After 1500 B.P., a wealth of ornaments, ceremonial, and artistic items characterize the Northern Bight “Chumash Tradition” along the central coast and offshore islands (Warren 1968). Ground stone items include bowls, mortars and pestles, balls, grooved stones, doughnut stones, stone beads, pendants, pipes, tubes, and mammal effigies. Projectile points, both large and small, were typically non-stemmed and leaf-shaped, with convex or concave bases. Chipped stone implements also included drills and scrapers. Utilitarian objects were made from bone (e.g., awls, fishhooks, whistles, and tubes) and shell (e.g., fishhooks and abalone shell dishes). Shell beads and ornaments were abundant, and bowls, pestles, pipes, and stone tubes were inlaid with shell beads and engraved. Bowls, pipes, and ornaments were commonly manufactured from steatite.

The manufacture of the plank canoe, called *tomol*, allowed coastal prehistoric populations to catch larger fish that occupied deeper sea waters (Glassow et al. 2007). Following the introduction of the *tomol*, which was lined with naturally occurring asphaltum, populations began to use harpoons, hooks and lines, and nets to catch deep sea fish and mammals (Van Horn 1979). The plank canoe appears to have influenced “commerce between the mainland coast and the Channel Islands,” and fish remains indicate “a noticeable increase in the acquisition of large deep-sea fish such as tuna and swordfish” (Glassow et al. 2007:204).

Projectile points diagnostic of both the Middle and Late periods are found in Northern Bight archaeological sites (Glassow et al. 2007). These projectile points include large, contracting-stemmed types typical of the Middle Period, as well as small, leaf-shaped Late Period projectile points, which likely reflect the introduction of the bow and arrow. Middle-Late Transition Period sites indicate that populations replaced atlatl (dart) technologies with the bow and arrow, which required smaller projectile points.

Mortars and pestles became more common during this transitional period, gradually replacing manos and metates as the dominant milling equipment. Many archaeologists believe this change in milling stones signals a change from the processing and consuming of hard seed resources to the increasing reliance on acorn (e.g., Glassow et al. 1988; True 1993).

Late Period (ca. 1000 B.P. – Historic Contact)

Late Period archaeological sites indicate sociopolitical and economic complexity among populations in the Northern Bight. Glassow et al. (2007:205) explain that sometime between 800 and 700 B.P., a ranked society emerged in the region. Climatic change may have stimulated the development of specialized crafts, regional trade, and changes in food procurement. Unlike the large Middle period shell middens, Late Period sites are more frequently single-component deposits. There are also more inland sites, with fewer and less visible sites along the Pacific shore during the Late Period. The settlement pattern and dietary reconstructions indicate a lesser reliance on marine resources than

observed for the Middle and Middle-Late Transition periods, as well as an increased preference for deer and rabbit (Jones 1995). An increase in the number of sites with bedrock mortar features that date to the Late Period suggests that nuts and seeds began to take on a more significant dietary role in Late Period populations.

Late Period sites are distinguished by small, finely worked projectile points and temporally diagnostic shell beads. These shell beads were used as monetary currency to trade with inland populations. Trade brought many maritime goods, such as fish, shellfish, and steatite bowls to inland locations, such as CA-SBA-3404, CA-SBA-485, and CA-SBA-2358, particularly during the latter part of the Late Period. Small, finely worked projectile points are typically associated with bow and arrow technology, which is believed to have been introduced to the area by the Tatic migration from the deserts into southern California.

3.2.2 Ethnographic Setting

The project site lies within Chumash ethnographic territory, which extends from the current city of Malibu, north beyond San Luis Obispo, and inland as far as 68 kilometers (42 miles) (Glassow 1996). The Chumash also inhabited the northern Channel Islands. The Chumash spoke six closely related languages, divided into two broad groups – Northern Chumash, consisting of only Obispeño, and Southern Chumash, including Purisimeño, Ineseño, Barbareño, Ventureño, and Island Chumash (Mithun 1999). The Chumash are divided into three main groups, including Interior, Coastal, and Northern Channel Islands Chumash. The coastal Barbareño Chumash referred to themselves as the Wal-wa-ren-na, and “occupied the narrow coastal plain from Point Conception to Punta Gorda in Ventura County” (Grant 1978b:509).

Chumash villages generally ranged between 30 and 200 people, with the largest settlements numbering anywhere from 500 to 800 people (Glassow 1996:14). Grant (1978b) describes a typical Chumash village along the Santa Barbara Channel as consisting of “several houses, a sweathouse, store houses, a ceremonial enclosure, gaming area, and a cemetery usually placed well away from the living area.” Archaeological investigations have recognized separate areas within cemeteries for elites and non-elites (King 1969).

Permanent Chumash villages included hemispherical or rounded mud-covered (insulated) pole and thatch dwellings arranged in close groups (Brown 2001). Thatching was made from tule, Carrizo grass, wild alfalfa, and fern (Grant 1978b). Smaller Chumash groups correspondingly occupied short-term special-purpose camps throughout the year to acquire seasonal resources (Glassow 1996). Cooking fires were centered within the dwelling to allow smoke to ventilate through a hole in the roof (Grant 1978b).

The Chumash are well-known for their wooden plank canoe, or tomol. The tomol facilitated the procurement of marine resources and the trade network between the mainland and the Channel Islands. Sea mammals were hunted with harpoons, while deep-sea fish were caught using nets and hooks and lines. In addition to marine resources, the Chumash subsistence focused on acorns, pine nuts, prickly pear cactus, and other plant resources, and land animals such as mule deer, antelope, quail, dove, and other waterfowl (Brown 2001). The Chumash also manufactured various other utilitarian and non-utilitarian items. Eating utensils, ornaments, fishhooks, harpoons, and other items were made using bone and shell. Olivella shell beads were especially important for trade.

Spanish explorers first arrived in the Santa Barbara Channel region in 1542. Contact had much more of an impact starting in 1770 with the establishment of the missions. Mission life led to severe population decline and culture loss (Johnson 1987). Although the Chumash languages are no longer

commonly spoken (Timbrook 1990), many descendants of the Chumash still live in the region and a cultural revitalization has been ongoing since the 20th century (Glassow et al. 2007). Today, the Santa Ynez Band of Chumash Indians, whose reservation is approximately 43 kilometers (27 miles) southeast of the project site, is the only federally recognized tribe.

3.2.3 Historic Setting

The post-Contact history of California is generally divided into three periods: the Spanish period (1769–1822), the Mexican period (1822–1848), and the American period (1848–present). Each of these periods is briefly described below.

Spanish Period (1769–1822)

The Santa Barbara Channel region was first visited by the Cabrillo Expedition in October of 1542 (Chesnut 1993). A second Spanish expedition, consisting of two ships under the command of Sebastian Vizcaino, arrived in the Santa Barbara area in 1602. For more than 200 years, Cabrillo, Vizcaino and other Spanish, Portuguese, British, and Russian explorers sailed the Alta (upper) California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003).

The Spanish began to permanently occupy Alta California in the late eighteenth century. While the Spanish funded expeditions to claim Alta California for the Spanish government, Franciscan missionaries traveled to proselytize and convert the local populations to Catholicism for the Church. Gaspar de Portolá established the first Spanish settlement, a military fort named El Presidio Real de San Diego, in Alta California in May 1769. The Presidio of San Diego was the first of four presidios that would be established throughout Alta California for the Spanish government. A year later, in June 1770, Portolá established the El Presidio Real de San Carlos de Monterrey, a bay originally identified by the Spanish explorer Sebastian Vizcaino in the early seventeenth century. Juan Bautista de Anza established El Presidio Real de San Francisco in June 1776. The Spanish established El Presidio de Santa Bárbara, the fourth and final presidio, in Alta California in 1782. The presidio was a temporary structure until construction of a permanent adobe structure began in 1784.

Franciscan Father Junípero Serra founded Misión San Diego de Alcalá in June 1769. The San Diego Mission was the first of 21 missions founded by the Franciscans in the late eighteenth and early nineteenth centuries. Misión Santa Barbara is the tenth mission founded by the Spanish, and was founded in 1786, four years after the establishment of the presidio. The Chumash that lived in the vicinity of the project site came under the control of the Spanish at Mission Santa Barbara. Other missions established along the central coast include Misión San Luis Obispo de Tolosa, founded in 1772, and Misión La Purísima Concepción, founded in 1787 (Weber 1992).

Mission Santa Barbara was reconstructed twice to enlarge the church in 1789 and 1793. The Spanish began to rebuild the church again in 1812 following damage from a major earthquake. The presidio and the mission were constructed using large adobe bricks shaped by a form and then sun dried. Large ceramic roof tiles called tejas were created by molding the clay on timbers until fully dried, creating the long, rounded shape seen at both the presidio and mission. Some floors were lined with clay tiles called ladrillos formed from the same clay used for the roof tiles, but mostly remained dirt. Mission Santa Barbara benefitted from construction of a dam and aqueduct system that diverted water from Mission Canyon. The Spanish relied on Chumash labor to construct the buildings, dam, and aqueduct system. Spanish families began to settle the area, becoming Pueblo Santa Barbara.

These settlers began to use the Goleta Valley for ranching and agriculture, and Pueblo Santa Barbara became an epicenter for hide and tallow trade.

Mission life led to severe population decline and culture loss among the Chumash. The Spanish brought with them diseases for which the Chumash had no immunity. Living and working in proximity spread diseases throughout the native populations and killed many. The Spanish also introduced domestic plants and animals for labor and food. These non-native species vastly altered the landscape, forcing the Chumash to adopt new foods and lifeways.

Mexican Period (1822–1848)

Mexico's revolution against Spain achieved success in 1821. News of the victory reached California in 1822, marking the beginning of the Mexican period. The hallmarks of the Mexican period are the secularization of the missions, completely accomplished by 1836, and a greater distribution of private land grants to prominent citizens, including retired military personnel. The Secularization Act of 1833 enabled Mexican governors in California to distribute former mission lands to individuals in the form of land grants. "The intention of the secularization of the California missions in 1834 was to transform the mission centers into Pueblos; the Indians, with their knowledge of trade and agriculture, would become Mexican citizens in these Pueblos," Grant (1978a:507) explains. Mexican governors made more than 700 land grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time (Shumway 2007). Forty land grants were issued in Santa Barbara County, where its fertile valleys were ideal for the ranching and agriculture prevalent during this period (Avina 1976; Tompkins 1976, 1987; Chesnut 1993).

Although Pueblo Santa Barbara thrived on hide and tallow trade, ranchers soon identified a more prosperous market in providing beef for the growing gold-mining population. Daniel Hill applied for a land grant in the mid-1840s and was granted the land that he would name Rancho La Goleta after the adjacent Goleta Slough, an estuary that historically formed an island (Mescaltitlan) surrounded by wetlands and marshes. Modugno (2015) explains that "the area around the east side of the slough had already been nicknamed La Goleta, or the schooner, because some schooners had run aground in that area, and at least one schooner had been built there." The Map of the Rancho La Goleta, published in the 1840s, indicates a wreck at the mouth of the slough just south of the rancho (University of California Berkeley N.d.).

American Period (1848–Present)

In 1848, the Treaty of Guadalupe Hidalgo was signed, ending the Mexican American War, and making California a territory of the United States. After American annexation, a struggle followed to improve local transportation and communications with the rest of the country so that the region could economically develop. The Gold Rush brought a multitude of new settlers to California in 1848 and the construction of the transcontinental railroad in 1869 contributed further to California's population boom. The County of Santa Barbara was incorporated on February 18, 1850, approximately seven months before California received statehood. The government built a lighthouse at Santa Barbara in 1856, and regular stagecoach routes began in the early 1860s (Southern California Writers' Project 1941). The real estate boom of the 1880s in southern California only mildly affected Santa Barbara County, particularly outside the city (Dumke 1944). Since that time, California has continued to grow and become a national leader in a number of fields, such as agriculture, communications, and the aerospace industry. Santa Barbara County is a popular tourist destination, with emphasis on the county's beaches, wine producers, missions, and Chumash sites.

Local History

The City of Santa Maria was originally established by settlers “attracted to the Santa Maria Valley” following establishment of nearby Missions San Luis Obispo de Tolosa and La Purísima Concepción De María Santísima (City of Santa Maria 2016). Four men, Rudolph Cook, Isaac Fesler, Isaac Miller, and John Thornburgh, each donated 40 acres where the four corners of their properties met to the establishment of a township in 1873. This property lies at the intersection of what is now Main and Broadway Streets (City of Santa Maria 2016). The township was surveyed in the fall of 1874, and the surveyor’s map was accepted and recorded at the county seat on April 12, 1875.

The Pacific Coast Railroad built tracks traveling south from San Luis Obispo and completed the new rail spur in 1882. Stage and freight lines serviced the Santa Maria Valley on a regular basis. The local water table was tapped for new fields and orchards, prompting migration to the area, and stores, markets, saloons, and hotels soon cropped up (Foster 2016). In 1885, the town’s name was changed to from Central City to Santa Maria, because the United States Postal Service repeatedly delivered mail intended for Central City, California to Central City, Colorado (City of Santa Maria 2016; Treankler 2015).

By the late 1800s, Swiss-Italian dairymen; Danish, Portuguese, and Japanese farmers; and Spanish, English, Irish, and Scottish settlers populated the town. Settlers typically became involved the major industries of the area-- dry land farming, cattle, and oil. In 1894 the Southern Pacific Railroad reached as far south as San Luis Obispo. Union Sugar Company arrived in the valley by 1900 (Foster 2016). Not until 1901 were trains traveling south through Santa Maria on the way to Los Angeles. The Santa Maria Valley Railroad began operating in 1912, hauling oil from the oil fields at Roadamite to the Southern Pacific Railroad Station at Guadalupe (Foster 2016; Foster n.d.). On September 12, 1905, the City of Santa Maria was incorporated “as a general law city” (Foster 2016; City of Santa Maria 2013:xi).

The project site is located just south of Santa Maria in the unincorporated suburb of Orcutt. Orcutt became an oil boomtown due to increased oil production in the region starting in the 1900’s. By 1903 the Orcutt and Santa Maria oil fields were producing large amounts of oil utilizing twenty-two wells (Redmon 2009). This economic success attracted lots of settlers to the region coming to work the wells. This caused a large influx in population (Redmon 2009). By 1906, Orcutt had several stores, two restaurants, a hotel and three saloons. By 1910’s the population had reached almost 1,000 citizens. The oil boom ended in the 1920’s, when Union Oil cut production in half between 1921 and 1927 (Redmon 2009). To compound things, the state rerouted the main highway around Orcutt, which also had a negative effect upon the town. In the years to follow, Santa Maria became the primary population and economic center of northern Santa Barbara County.

Since 1957, the City of Santa Maria has been heavily influenced by programs at Vandenberg Air Force Base, located 20 miles south. In the 1970s, the Santa Maria Town Center mall was constructed. The city council has worked to maintain Santa Maria’s status as a regional retail hub. The city remains the leader in retail sales growth for Santa Barbara County, and annexations have increased the size to approximately 22 square miles (City of Santa Maria 2013). Agriculture, however, remains the city’s chief economic influence. The Santa Maria Valley is home to several vineyards and wineries and primary crops include strawberries, celery, lettuce, peas, and squash.

4 Background Research

4.1 California Historical Resources Information System

On July 21, 2021, Rincon received the results of a records search of the California Historical Resources Information System, which was conducted by the staff at the Central Coast Information Center (CCIC) located at University of California, Santa Barbara. The search was conducted to identify previously recorded cultural resources (prehistoric or historic), as well as previously conducted cultural resources work within a 0.5-mile radius of the project site. The search included a review of the NRHP, the California Register of Historical Resources, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic United States Geological Survey (USGS) 7.5- and 15-minute quadrangle maps. Appendix A provides a summary of the records search.

4.1.1 Previous Studies

The cultural resources records search identified a total of 15 previous studies within the 0.5-mile search radius, three of which (SR-04603, SR-04604, and SR-04605) included portions of the project site (Table 1).

Table 1 Previous Cultural Resource Studies within 0.5-Mile of the Project Site

Report Number	Author	Year	Title	Relationship to Project Site
SR-00319	Spanne, L.	1979	<i>An Archaeological Evaluation for the "Orcutt 13" Residential Developments County of Santa Barbara</i>	Outside
SR-00322	Spanne, L.	1979	<i>An Archaeological Evaluation for the Orcutt 7 Residential Developments County of Santa Barbara</i>	Outside
SR-00324	Spanne, L.	1980	<i>An Historic Cultural and Archaeological Evaluation of the Orcutt Road Job No. 510052 Orcutt, California, County of Santa Barbara</i>	Outside
SR-00379	Spanne, L.	1978	<i>An Archaeological Analysis for Six Proposed Residential Developments in Orcutt, California, Santa Barbara County</i>	Outside
SR-01801	Toren & Santoro	1995	<i>Phase I Archaeological Survey for the Orcutt Community Plan</i>	Outside
SR-02522	Gerber, J.	2000	<i>Phase I Archaeological Study Proposed Union Valley Parkway, Santa Maria, CA</i>	Outside
SR-03222	Livingstone, D.	2003	<i>Historical Resources Evaluation Report for the Hummel Drive Extension Project in Santa Maria, Santa Barbara County, California</i>	Outside
SR-03309	Dice, M.	2003	<i>Records Search and Site Visit Results for Spirit Communications Facility SN45XC107A (St. Joseph High School) 4120 S. Bradley Road, Santa Maria, Santa Barbara County, California</i>	Outside

The County of Santa Barbara
Brookside Avenue Fire Station Project

Report Number	Author	Year	Title	Relationship to Project Site
SR-04365	King, G.	2008	<i>Finding of No Adverse Effect for the Union Valley Parkway Extension/Interchange Project, Santa Barbara County, California (FHWA080110A)</i>	Outside
SR-04422	Carr, P. J.	2008	<i>Union Valley Parkway Extension/Interchange Project, Santa Barbara County, California</i>	Outside
SR-04451	Kiaha, K.	2007	<i>Archaeological Survey Report, Union Valley Parkway Project, 05-SB-101-PM 83.1/83.9, EA 05-463800</i>	Outside
SR-04601	Gerber & Haslouer	2006	<i>Archaeological Survey Report for the Union Valley Parkway Extension in Santa Maria, Santa Barbara County, California</i>	Outside
SR-04602	Taniguchi, C., et al	2007	<i>Historical Resources Evaluation Report for the Union Valley Parkway Extension Project in Santa Maria, Santa Barbara County, California</i>	Outside
SR-04603	Nettles, W. M.	2008	<i>Historic Property Survey Report, Union Valley Parkway</i>	Within
SR-04603A	Kiaha, K.	2007	<i>Archaeological Survey Report: Union Valley Parkway Project 05-SB-101-PM 83.1/83.9, EA 05-463800</i>	Within
SR-04603B	Gerber, J.	2000	<i>Not Attached to Report, Only Listed as an Attachment Within It</i>	Within
SR-04603C	Gerber, J.	2001	<i>Not Attached to Report, Only Listed as an Attachment Within It</i>	Within
SR-04603D	Gerber & Haslouer	2006	<i>Archaeological Survey Report for the Union Valley Parkway Extension in Santa Maria, Santa Barbara County, California</i>	Within
SR-04603E	Taniguchi, C., et al	2007	<i>Historical Resources Evaluation Report for the Union Valley Parkway Extension Project in Santa Maria, Santa Barbara County, California</i>	Within
SR-04604	Peterson, R. R.	2008	<i>Supplemental Historic Property Survey Report</i>	Within
SR-04604A	Peterson, R. R.	2008	<i>First Supplemental Archaeological Survey Report: UVP Gap, Union Valley Parkway Extension/Interchange, Santa Maria, Santa Barbara County, California</i>	Within
SR-04605	Peterson, R. R.	2008	<i>Supplemental Historical Property Survey Report, Union Valley Pkwy/US101</i>	Within
SR-04794	Post/Hazeltine Associates	2012	<i>Phase III Historic Resources Documentation Report for 4470 Orcutt Road APN 107-250-011, 107-250-012, 107-250-013</i>	Outside

Source: Central Coastal Information Center, July 2021

4.1.2 Previously Recorded Resources

The cultural resources study identified no cultural resources within the 0.5-mile search radius, and no cultural resources located within the project site.

4.2 Native American Heritage Commission and Assembly Bill (AB) 52 Outreach

As part of the process of identifying Native American cultural resources within or near the project site, Rincon contacted the Native American Heritage Commission (NAHC) on July 14, 2021 and to request a review of the Sacred Lands File. The NAHC emailed a response on August 2, 2021 (Appendix B) and stated the results of the search was negative. The NAHC provided a contact list of nine Native American individuals or tribal organizations that may have knowledge of cultural resources in or near the project site. Rincon prepared Assembly Bill (AB) 52 letters for the County (Appendix B) addressed to each of the NAHC-listed contacts on August 10, 2019, inviting tribes to consult with the County on the current undertaking.

5 Fieldwork

5.1 Methods

Rincon Associate Archaeologist Ryan Glenn, MA, RPA, conducted a field survey of the project site on July 28, 2021. Mr. Glenn surveyed the entirety of the project site in 10-meter transects and examined all areas of exposed ground surface for prehistoric artifacts (e.g., chipped stone tools and production debris, stone milling tools, ceramics), historic debris (e.g., metal, glass, ceramics), or soil discoloration that might indicate the presence of a cultural midden. Project site characteristics and survey conditions were recorded using a field notebook and a digital camera. Copies of the digital photographs are on file with Rincon's San Luis Obispo office.

5.2 Results

The Project site is an undeveloped parcel with vegetation consisting of tall grasses, Datura, Mustard, and wild radish, leading to excellent ground visibility (approximately 80 to 100 percent) (Figure 3). Review of aerial photographs shows that the site appears to have been vacant as early as 1956 and never developed.

The project site consists mainly of aeolian dune sand and is covered in non-native weeds and grasses (*Avena* sp., *Bromus diandrus*, *Brassica nigra*, *Festuca perennis*, etc.). A modern, unimproved walking trail extends from the terminus of Brookside Avenue, through the project site and then parallels West Union Valley Parkway (Figure 4). Exposed soils consisted of light brown to tan loose sand with small, rounded pebble-sized inclusions from 1 to 4 inches in length. The soil is well-sorted and contained naturally occurring, non-cultural shells consisting of Red Abalone (*Haliotis rufescens*) and scallop (*Crassadoma Sp.*). There was modern trash located throughout the project site consisting of household goods and plastics. A Eucalyptus grove was present in the northwestern corner of the project site (Figure 5).

The field survey did not identify any cultural resources in the project site.

Figure 3 Ground Surface Visibility was Excellent within Project Site



Figure 4 Existing Footpath Through Project Site with West Union Valley Parkway in the Distance, Facing Southwest



Figure 5 Eucalyptus Grove Located in the Northwest Portion of the Project Site



6 Management Recommendations

Based on the results of the cultural resources records search and the pedestrian survey, no known archaeological resources were identified within the project site. Rincon recommends a finding of ***no impact to historical resources*** for the purposes of CEQA and does not recommend any additional archeological work at this time. The following measures are recommended in the case of unanticipated discoveries during ground-disturbing activities.

6.1 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under the NHPA, additional work such as data recovery excavation may be warranted.

6.2 Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code §7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code §5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site.

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Appendix A

Record Search Results



Central Coast Information Center

Santa Barbara Museum of Natural History
2559 Puesta del Sol
Santa Barbara, CA 93105

PHONE (805) 682-4711 ext. 181

FAX (805) 682-3170

EMAIL ccic@sbnature2.org

7/21/2021

Records Search # 21-169

Ryan Glenn
Rincon Consultants, Inc.
180 N Ashwood Avenue
Ventura, CA 93003

Re: Brookside Avenue Fire Station 20-09360

The Central Coast Information Center received your record search request for the project area referenced above, located on the Santa Maria USGS 7.5' quad(s). The following reflects the results of the records search for the project area and a one half mile radius:

As indicated on the data request form, the locations of reports and resources are provided in the following format: custom GIS maps shapefiles hand-drawn maps none

Resources within project area:	0
Resources within ½ mile radius:	0
Reports within project area:	3; SR-04603, SR-04604, SR-04605
Reports within ½ mile radius:	15; see list

- | | | | |
|---|--|--|--|
| <u>Resource Database Printout (list):</u> | <input type="checkbox"/> enclosed | <input type="checkbox"/> not requested | <input checked="" type="checkbox"/> nothing listed |
| <u>Resource Database Printout (details):</u> | <input type="checkbox"/> enclosed | <input type="checkbox"/> not requested | <input checked="" type="checkbox"/> nothing listed |
| <u>Resource Digital Database Records:</u> | <input type="checkbox"/> enclosed | <input type="checkbox"/> not requested | <input checked="" type="checkbox"/> nothing listed |
| <u>Report Database Printout (list):</u> | <input checked="" type="checkbox"/> enclosed | <input type="checkbox"/> not requested | <input type="checkbox"/> nothing listed |
| <u>Report Database Printout (details):</u> | <input checked="" type="checkbox"/> enclosed | <input type="checkbox"/> not requested | <input type="checkbox"/> nothing listed |
| <u>Report Digital Database Records:</u> | <input checked="" type="checkbox"/> enclosed | <input type="checkbox"/> not requested | <input type="checkbox"/> nothing listed |
| <u>Resource Record Copies:</u> | <input type="checkbox"/> enclosed | <input type="checkbox"/> not requested | <input checked="" type="checkbox"/> nothing listed |
| <u>Report Copies:</u> | <input checked="" type="checkbox"/> enclosed | <input type="checkbox"/> not requested | <input type="checkbox"/> nothing listed |
| <u>OHP Historic Properties Directory:</u> | <input type="checkbox"/> enclosed | <input type="checkbox"/> not requested | <input checked="" type="checkbox"/> nothing listed |
| <u>Archaeological Determinations of Eligibility:</u> | <input type="checkbox"/> enclosed | <input type="checkbox"/> not requested | <input checked="" type="checkbox"/> nothing listed |

The following sources of information are available at http://ohp.parks.ca.gov/?page_id=28065. Some of these resources used to be available through the CHRIS but because they are now online, they can be accessed directly. The Office of Historic Preservation makes no guarantees about the availability, completeness, or accuracy of the information provided through the sources listed below.

<i>California State Lands Commission Shipwreck Database</i>	<i>Caltrans Historic Bridge Inventory</i>
<i>U.S. Geological Survey Historic Topographic Maps</i>	<i>Rancho Plat Maps</i>
<i>National Park Service National Register of Historic Places Nominations</i>	<i>Natural Resource Conservation Service Soil Survey Maps</i>
<i>US Bureau of Land Management General Land Office Records</i>	<i>California Historical Landmarks Listing (by county)</i>
<i>Five Views: An Ethnic Historic Site Survey for California (1988)</i>	<i>Historical Soil Survey Maps</i>

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of California Historical Resources Information System (CHRIS) data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the CHRIS.

Sincerely,

Brian Barbier
Assistant Coordinator

CHRIS Data Request Form

ACCESS AND USE AGREEMENT NO.: _____ **IC FILE NO.:** _____

To: _____ Information Center

Print Name: _____ Date: _____

Affiliation: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ Email: _____

Billing Address (if different than above): _____

Billing Email: _____ Billing Phone: _____

Project Name / Reference: _____

Project Street Address: _____

County or Counties: _____

Township/Range/UTMs: _____

USGS 7.5' Quad(s): _____

PRIORITY RESPONSE (Additional Fee): yes / no

TOTAL FEE NOT TO EXCEED: \$ _____

(If blank, the Information Center will contact you if the fee is expected to exceed \$1,000.00)

Special Instructions:

Information Center Use Only

Date of CHRIS Data Provided for this Request: _____

Confidential Data Included in Response: yes / no

Notes: _____

CHRIS Data Request Form

Mark the request form as needed. Attach a PDF of your project area (with the radius if applicable) mapped on a 7.5' USGS topographic quadrangle to scale 1:24000 ratio 1:1 neither enlarged nor reduced and include a shapefile of your project area, if available. Shapefiles are the current CHRIS standard for submitting digital spatial data for your project area or radius. **Check with the appropriate IC for current availability of digital data products.**

- Documents will be provided in PDF format. Paper copies will only be provided if PDFs are not available at the time of the request or under specially arranged circumstances.
- Location information will be provided as a digital map product (Custom Maps or GIS data) unless the area has not yet been digitized. In such circumstances, the IC may provide hand drawn maps.
- In addition to the \$150/hr. staff time fee, client will be charged the Custom Map fee when GIS is required to complete the request [e.g., a map printout or map image/PDF is requested and no GIS Data is requested, or an electronic product is requested (derived from GIS data) but no mapping is requested].

For product fees, see the CHRIS IC Fee Structure on the [OHP website](#).

1. Map Format Choice:

Select One: Custom GIS Maps GIS Data Custom GIS Maps **and** GIS Data No Maps

Any selection below left unmarked will be considered a "no."

Location Information:

	Within project area	Within _____	radius
ARCHAEOLOGICAL Resource Locations¹	yes / no	yes / no	
NON-ARCHAEOLOGICAL Resource Locations Report Locations¹	yes / no	yes / no	
"Other" Report Locations²	yes / no	yes / no	

3. Database Information:

(contact the IC for product examples, or visit the [SSJVIC website](#) for examples)

	Within project area	Within _____	radius
ARCHAEOLOGICAL Resource Database¹			
List (PDF format)	yes / no	yes / no	
Detail (PDF format)	yes / no	yes / no	
Excel Spreadsheet	yes / no	yes / no	
NON-ARCHAEOLOGICAL Resource Database			
List (PDF format)	yes / no	yes / no	
Detail (PDF format)	yes / no	yes / no	
Excel Spreadsheet	yes / no	yes / no	
Report Database¹			
List (PDF format)	yes / no	yes / no	
Detail (PDF format)	yes / no	yes / no	
Excel Spreadsheet	yes / no	yes / no	
Include "Other" Reports ²	yes / no	yes / no	

4. Document PDFs (paper copy only upon request):

	Within project area	Within _____	radius
ARCHAEOLOGICAL Resource Records ¹	yes / no	yes / no	
NON-ARCHAEOLOGICAL Resource Records Reports ¹	yes / no	yes / no	
"Other" Reports ²	yes / no	yes / no	

CHRIS Data Request Form

5. Eligibility Listings and Documentation:

	Within project area	Within _____	radius
OHP Built Environment Resources Directory³:			
Directory listing only (Excel format)	yes / no	yes / no	
Associated documentation ⁴	yes / no	yes / no	
OHP Archaeological Resources Directory^{1,5}:			
Directory listing only (Excel format)	yes / no	yes / no	
Associated documentation ⁴	yes / no	yes / no	
California Inventory of Historic Resources (1976):			
Directory listing only (PDF format)	yes / no	yes / no	
Associated documentation ⁴	yes / no	yes / no	

6. Additional Information:

The following sources of information may be available through the Information Center. However, several of these sources are now available on the [OHP website](#) and can be accessed directly. The Office of Historic Preservation makes no guarantees about the availability, completeness, or accuracy of the information provided through these sources. Indicate below if the Information Center should review and provide documentation (if available) of any of the following sources as part of this request.

Caltrans Bridge Survey	yes / no
Ethnographic Information	yes / no
Historical Literature	yes / no
Historical Maps	yes / no
Local Inventories	yes / no
GLO and/or Rancho Plat Maps	yes / no
Shipwreck Inventory	yes / no
Soil Survey Maps	yes / no

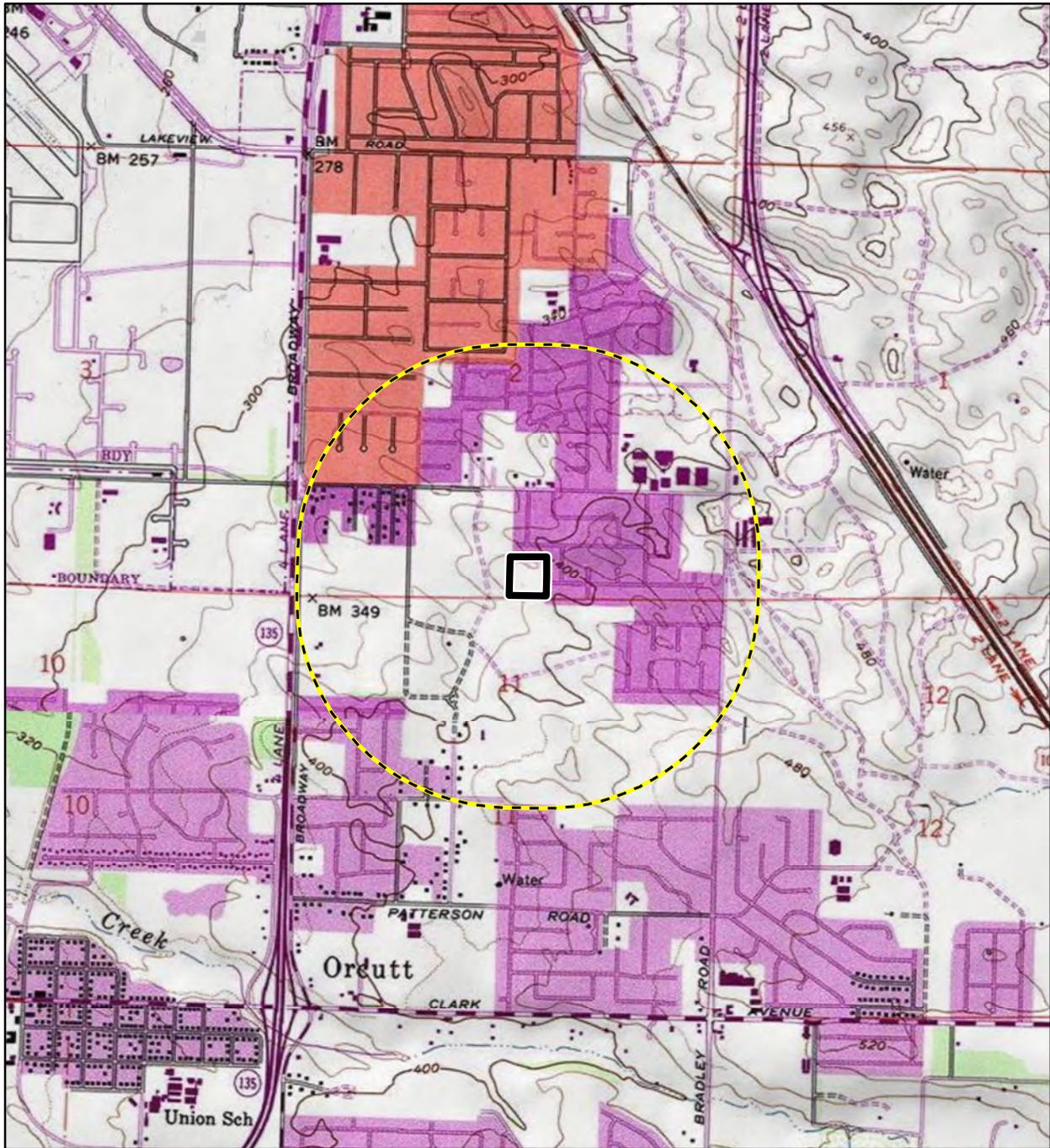
¹ In order to receive archaeological information, requestor must meet qualifications as specified in Section III of the current version of the California Historical Resources Information System Information Center Rules of Operation Manual and be identified as an Authorized User or Conditional User under an active CHRIS Access and Use Agreement.

² "Other" Reports GIS layer consists of report study areas for which the report content is almost entirely non-fieldwork related (e.g., local/regional history, or overview) and/or for which the presentation of the study area boundary may or may not add value to a record search.

³ Provided as Excel spreadsheets with no cost for the rows; the only cost for this component is IC staff time. Includes, but not limited to, information regarding National Register of Historic Places, California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and historic building surveys. Previously known as the HRI and then as the HPD, it is now known as the Built Environment Resources Directory (BERD). The Office of Historic Preservation compiles this documentation and it is the source of the official status codes for evaluated resources.

⁴ Associated documentation will vary by resource. Contact the IC for further details.

⁵ Provided as Excel spreadsheets with no cost for the rows; the only cost for this component is IC staff time. Previously known as the Archaeological Determinations of Eligibility, now it is known as the Archaeological Resources Directory (ARD). The Office of Historic Preservation compiles this documentation and it is the source of the official status codes for evaluated resources.



Imagery provided by National Geographic Society, Esri, and their licensors © 2021. Santa Maria Quadrangle. T09N R34W S2. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

-  Half-Mile Buffer
-  Area of Potential Effects



0 1,000 2,000 Feet

0 250 500 Meters

1:24,000

Records Search Map



Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-00319		1979	Spanne, Larry	An Archaeological Evaluation for the "Orcutt 13" Residential Developments County of Santa Barbara	none given	
SR-00322		1979	Spanne, Larry	An Archaeological Evaluation for the Orcutt 7 Residential Developments County of Santa Barbara.	Laurence W. Spanne, Archaeological Consultant	42-000596, 42-000597, 42-000598, 42-000599
SR-00324		1980	Spanne, L.	An Historic Cultural and Archaeological Evaluation of the Orcutt Road Job No. 510052 Orcutt, California, County of Santa Barbara.	Laurence W. Spanne, Archaeological Consultants	
SR-00379		1978	Spanne, L.	An Archaeological Analysis for Six Proposed Residential Developments in Orcutt, California, Santa Barbara County.		
SR-01801		1995	Toren, G. and Santoro, L.	Phase I Archaeological Survey for the Orcutt Community Plan	ISERA Group, inc.	42-000597, 42-000598, 42-000599, 42-001159, 42-002729, 42-002730, 42-002731, 42-002732, 42-002733, 42-002735, 42-002736, 42-002737, 42-002738, 42-002739, 42-002740, 42-002741, 42-002742, 42-002743, 42-002744, 42-002745, 42-038587, 42-038588, 42-038589, 42-038590, 42-038591, 42-038592, 42-038593, 42-038594, 42-038595, 42-038596, 42-038597, 42-038598, 42-038599, 42-038600, 42-038601, 42-038602
SR-02522		2000	Gerber, Joyce	Phase I Archaeological Study Proposed Union Valley Parkway, Santa Maria, CA	Joyce L. Gerber Archaeological Consulting	
SR-03222		2003	Livingstone, David	Historical Resources Evaluation Report for the Hummel Drive Extension Project in Santa Maria, Santa Barbara County, California	Applied EarthWorks, Inc.	
SR-03309		2003	Dice, M.	Records Search and Site Visit Results for Sprint Telecommunications Facility SN45XC107A (St. Joseph High School), 4120 S. Bradley Road, Santa Maria, Santa Barbara County, California		
SR-04365		2008	King, Gregory	Finding of No Adverse Effect for the Union Valley Parkway Extension/Interchange Project, Santa Barbara County, California (FHWA080110A)	Department of Transportation	
SR-04422		2008	Carr, Paula Juelke	Union Valley Parkway Extension/Interchange Project, Santa Barbara County, California	Department of Transportation	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SR-04451		2007	Kiaha, Krista	Archaeological Survey Report, Union Valley Parkway Project, 05-SB-101-PM 83.1/83.9, EA 05-463800	Caltrans District 5	
SR-04601		2006	Joyce L. Gerber and Leeann Haslouer	Archaeological Survey Report for the Union Valley Parkway Extension in Santa Maria, Santa Barbara County, California	Applied EarthWorks, Inc.	
SR-04602		2007	Christeen Taniguchi, Ben Taniguchi, David Livingstone, Peggy Beedle, Sandra S. Flint, and Randy Baloian	Historical Resources Evaluation Report for the Union Valley Parkway Extension Project in Santa Maria, Santa Barbara County, California	Galvin Preservation Associates, Inc.	42-040899, 42-040900, 42-040901, 42-040902, 42-040903, 42-040904
SR-04603		2008	Wendy M. Nettles	Historic Property Survey Report, Union Valley Parkway	Applied EarthWorks, Inc.	
SR-04603A		2007	Krista Kiaha	Archaeological Survey Report: Union Valley Parkway Project 05-SB-101-PM 83.1/83.9, EA 05-463800	Caltrans District 5	
SR-04603B		2000	Gerber	Not attached to report, only listed as an attachment within it.		
SR-04603C		2001	Gerber	Not attached to report, only listed as attached within it.		
SR-04603D		2006	Joyce L. Gerber and Leeann Haslouer	Archaeological Survey Report for the Union Valley Parkway Extension in Santa Maria, Santa Barbara County, California	Applied EarthWorks, Inc.	
SR-04603E		2007	Christeen Taniguchi, Ben Taniguchi, David Livingstone, Peggy Beedle, Sandra S. Flint, and Randy Baloian	Historical Resources Evaluation Report for the Union Valley Parkway Extension Project in Santa Maria, Santa Barbara County, California	Galvin Preservation Associates Inc.	
SR-04604		2008	Robert R. Peterson, Jr.	Supplemental Historic Property Survey Report	Applied EarthWorks, Inc.	
SR-04604A		2008	Robert R. Peterson	First Supplemental Archaeological Survey Report: UVP Gap, Union Valley Parkway Extension/Interchange, Santa Maria, Santa Barbara County, California	Applied EarthWorks	
SR-04605		2008	Robert R. Peterson, Jr.	Supplemental Historical Property Survey Report, Union Valley Pkwy/US101	Applied EarthWorks, Inc.	
SR-04794		2012	Post / Hazeltine Associates	Phase III Historic Resources Documentation Report for 4470 Orcutt Road APN 107-250-011, 107-250-012, 107-250-013	Post / Hazeltine Associates	

Report Detail: SR-00319

Identifiers

Report No.: SR-00319

Other IDs:

Cross-refs:

Citation information

Author(s): Spanne, Larry

Year: 1979 (Jan)

Title: An Archaeological Evaluation for the "Orcutt 13" Residential Developments County of Santa Barbara

Affiliation: none given

No. pages: 6

No. maps:

Attributes: Archaeological, Field study

Inventory size: 1578330 sq. m.

Disclosure: Unrestricted

Collections: No

General notes

Associated resources

No. resources: 0

Has informals: Yes

Location information

County(ies): Santa Barbara

USGS quad(s): Orcutt, Santa Maria

Address:

PLSS:

Database record metadata

	<i>Date</i>	<i>User</i>	
<i>Entered:</i>	9/8/2014	jay	
<i>Last modified:</i>	7/31/2018	Brian Barbier	
<i>IC actions:</i>	<i>Date</i>	<i>User</i>	<i>Action taken</i>
	9/8/2014	jay	Appended record from Filemaker bibliography database.
	7/31/2018	Brian Barbier	ICDB completed
	7/31/2018	Brian Barbier	GIS edited and moved to approx by C. De l'Arbre on 5/21/15
	7/31/2018	Brian Barbier	GIS verified (poor map quality)

Record status: Database Complete

Report Detail: SR-00322

Identifiers

Report No.: SR-00322

Other IDs:

Cross-refs:

Citation information

Author(s): Spanne, Larry

Year: 1979 (Aug)

Title: An Archaeological Evaluation for the Orcutt 7 Residential Developments County of Santa Barbara.

Affiliation: Laurence W. Spanne, Archaeological Consultant

No. pages: 11

No. maps:

Attributes: Archaeological, Field study

Inventory size: None given

Disclosure: Not for publication

Collections: No

General notes

Associated resources

Primary No.	Trinomial	Name
P-42-000596	CA-SBA-000596	
P-42-000597	CA-SBA-000597	
P-42-000598	CA-SBA-000598	
P-42-000599	CA-SBA-000599	

No. resources: 4

Has informals: Yes

Location information

County(ies): Santa Barbara

USGS quad(s): Orcutt

Address:

PLSS:

Database record metadata

Date	User	Action taken
Entered: 9/8/2014	jay	
Last modified: 9/25/2018	Elizabeth Weig	
IC actions: Date	User	Action taken
9/8/2014	jay	Appended record from Filemaker bibliography database.
7/31/2018	Brian Barbier	Mapped in GIS by C. De l'Arbre on 5/21/15
7/31/2018	Brian Barbier	Isolated find mapped in Informal resources-points. Report GIS verified. ICDB verified. PDF verified.

Record status: Verified

Report Detail: SR-00324

Identifiers

Report No.: SR-00324

Other IDs:

Cross-refs:

Citation information

Author(s): Spanne, L.

Year: 1980 (Apr)

Title: An Historic Cultural and Archaeological Evaluation of the Orcutt Road Job No. 510052 Orcutt, California, County of Santa Barbara.

Affiliation: Laurence W. Spanne, Archaeological Consultants

No. pages: 9

No. maps:

Attributes: Archaeological, Field study

Inventory size: None given

Disclosure: Not for publication

Collections: No

General notes

Associated resources

No. resources: 0

Has informals:

Location information

County(ies): Santa Barbara

USGS quad(s): Orcutt, Santa Maria

Address:

PLSS:

Database record metadata

	<i>Date</i>	<i>User</i>	
<i>Entered:</i>	9/8/2014	jay	
<i>Last modified:</i>	9/25/2018	Elizabeth Weig	
<i>IC actions:</i>	<i>Date</i>	<i>User</i>	<i>Action taken</i>
	9/8/2014	jay	Appended record from Filemaker bibliography database.
	9/25/2018	Elizabeth Weigle	Entered additional information. ICDB entry verified. GIS verified.

Record status: Database Complete

Report Detail: SR-00379

Identifiers

Report No.: SR-00379

Other IDs:

Cross-refs:

Citation information

Author(s): Spanne, L.

Year: 1978 (Jun)

Title: An Archaeological Analysis for Six Proposed Residential Developments in Orcutt, California, Santa Barbara County.

Affiliation:

No. pages: 6

No. maps:

Attributes: Archaeological, Field study

Inventory size: 870105 sq. m.

Disclosure:

Collections:

General notes

Associated resources

No. resources: 0

Has informals:

Location information

County(ies): Santa Barbara

USGS quad(s): Orcutt, Santa Maria

Address:

PLSS:

Database record metadata

	<i>Date</i>	<i>User</i>	
<i>Entered:</i>	9/8/2014	jay	
<i>Last modified:</i>	6/3/2015	CCIC3	
<i>IC actions:</i>	<i>Date</i>	<i>User</i>	<i>Action taken</i>
	9/8/2014	jay	Appended record from Filemaker bibliography database.

Record status:

Report Detail: SR-01801

Identifiers

Report No.: SR-01801

Other IDs:

Cross-refs:

Citation information

Author(s): Toren, G. and Santoro, L.

Year: 1995 (Jun)

Title: Phase I Archaeological Survey for the Orcutt Community Plan

Affiliation: ISERA Group, inc.

No. pages: 63

No. maps:

Attributes: Archaeological, Field study

Inventory size: None given

Disclosure: Not for publication

Collections: No

General notes

Associated resources

Primary No.	Trinomial	Name
P-42-000597	CA-SBA-000597	
P-42-000598	CA-SBA-000598	
P-42-000599	CA-SBA-000599	
P-42-001159	CA-SBA-001159	
P-42-002729	CA-SBA-002729	
P-42-002730	CA-SBA-002730	
P-42-002731	CA-SBA-002731	
P-42-002732	CA-SBA-002732	
P-42-002733	CA-SBA-002733	
P-42-002735	CA-SBA-002735	
P-42-002736	CA-SBA-002736	
P-42-002737	CA-SBA-002737	
P-42-002738	CA-SBA-002738	
P-42-002739	CA-SBA-002739	
P-42-002740	CA-SBA-002740	
P-42-002741	CA-SBA-002741	
P-42-002742	CA-SBA-002742	
P-42-002743	CA-SBA-002743	
P-42-002744	CA-SBA-002744	
P-42-002745	CA-SBA-002745	
P-42-038587		
P-42-038588		
P-42-038589		
P-42-038590		
P-42-038591		
P-42-038592		
P-42-038593		
P-42-038594		
P-42-038595		
P-42-038596		
P-42-038597		
P-42-038598		
P-42-038599		
P-42-038600		
P-42-038601		
P-42-038602		

No. resources: 36

Report Detail: SR-01801

Has informals: No

Location information

County(ies): Santa Barbara
USGS quad(s): Orcutt, Santa Maria
Address:
PLSS:

Database record metadata

<i>Date</i>	<i>User</i>	
<i>Entered:</i> 9/8/2014	jay	
<i>Last modified:</i> 9/26/2018	Elizabeth Weig	
<i>IC actions:</i> <i>Date</i>	<i>User</i>	<i>Action taken</i>
9/8/2014	jay	Appended record from Filemaker bibliography database.
8/10/2018	Matthew LoBian	GIS edited.
9/26/2018	Elizabeth Weigle	Entered additional information. Updated PDF. ICDB verified. GIS verified.

Record status: Database Complete

Report Detail: SR-02522

Identifiers

Report No.: SR-02522

Other IDs:

Cross-refs:

Citation information

Author(s): Gerber, Joyce

Year: 2000 (Apr)

Title: Phase I Archaeological Study Proposed Union Valley Parkway, Santa Maria, CA

Affiliation: Joyce L. Gerber Archaeological Consulting

No. pages: 14

No. maps: 3

Attributes: Archaeological, Field study

Inventory size: None Given

Disclosure: Unrestricted

Collections: No

General notes

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Santa Barbara

USGS quad(s): Santa Maria

Address:

PLSS:

Database record metadata

	Date	User	
Entered:	9/8/2014	jay	
Last modified:	8/10/2018	Matthew LoBia	
IC actions:	Date	User	Action taken
	9/8/2014	jay	Appended record from Filemaker bibliography database.
	8/10/2018	Matthew LoBian	GIS edited.

Record status:

Report Detail: SR-03222

Identifiers

Report No.: SR-03222

Other IDs:

Cross-refs:

Citation information

Author(s): Livingstone, David

Year: 2003 (Sep)

Title: Historical Resources Evaluation Report for the Hummel Drive Extension Project in Santa Maria, Santa Barbara County, California

Affiliation: Applied EarthWorks, Inc.

No. pages: 97

No. maps:

Attributes: Archaeological, Field study

Inventory size: 1.76 acres

Disclosure: Not for publication

Collections: No

General notes

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Santa Barbara

USGS quad(s): Orcutt, Santa Maria

Address:

PLSS:

Database record metadata

	Date	User	
Entered:	9/8/2014	jay	
Last modified:	5/23/2016	CCIC4	
IC actions:	Date	User	Action taken
	9/8/2014	jay	Appended record from Filemaker bibliography database.

Record status:

Report Detail: SR-03309

Identifiers

Report No.: SR-03309

Other IDs:

Cross-refs:

Citation information

Author(s): Dice, M.

Year: 2003

Title: Records Search and Site Visit Results for Sprint Telecommunications Facility SN45XC107A (St. Joseph High School), 4120 S. Bradley Road, Santa Maria, Santa Barbara County, California

Affiliation:

No. pages: 7

No. maps:

Attributes: Archaeological, Field study

Inventory size: 1570 square feet

Disclosure:

Collections:

General notes

Associated resources

No. resources: 0

Has informals:

Location information

County(ies): Santa Barbara

USGS quad(s): Santa Maria

Address:

PLSS:

Database record metadata

	Date	User	
Entered:	9/8/2014	jay	
Last modified:			
IC actions:	Date	User	Action taken
	9/8/2014	jay	Appended record from Filemaker bibliography database.
Record status:			

Report Detail: SR-04365

Identifiers

Report No.: SR-04365

Other IDs:

Cross-refs:

Citation information

Author(s): King, Gregory

Year: 2008 (Jul)

Title: Finding of No Adverse Effect for the Union Valley Parkway Extension/Interchange Project, Santa Barbara County, California (FHWA080110A)

Affiliation: Department of Transportation

No. pages: 3

No. maps:

Attributes: Architectural/Historical, Evaluation

Inventory size: 5 acres

Disclosure: Not for publication

Collections: No

General notes

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Santa Barbara

USGS quad(s): Santa Maria

Address:

PLSS:

Database record metadata

	<i>Date</i>	<i>User</i>	
<i>Entered:</i>	9/8/2014	jay	
<i>Last modified:</i>	10/15/2019	Mia Magradze	
<i>IC actions:</i>	<i>Date</i>	<i>User</i>	<i>Action taken</i>
	9/8/2014	jay	Appended record from Filemaker bibliography database.
	10/15/2019	Mia Magradze	PDF completed

Record status:

Report Detail: SR-04422

Identifiers

Report No.: SR-04422

Other IDs:

Cross-refs:

Citation information

Author(s): Carr, Paula Juelke

Year: 2008 (Jun)

Title: Union Valley Parkway Extension/Interchange Project, Santa Barbara County, California

Affiliation: Department of Transportation

No. pages: 22

No. maps:

Attributes: Management/planning

Inventory size: 1.5 acres

Disclosure: Not for publication

Collections: No

General notes

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Santa Barbara

USGS quad(s): Orcutt

Address:

PLSS:

Database record metadata

	<i>Date</i>	<i>User</i>	
<i>Entered:</i>	9/8/2014	jay	
<i>Last modified:</i>	5/11/2016	CCIC4	
<i>IC actions:</i>	<i>Date</i>	<i>User</i>	<i>Action taken</i>
	9/8/2014	jay	Appended record from Filemaker bibliography database.

Record status:

Report Detail: SR-04451

Identifiers

Report No.: SR-04451

Other IDs:

Cross-refs: See also SR-04600

Citation information

Author(s): Kiaha, Krista

Year: 2007 (Nov)

Title: Archaeological Survey Report, Union Valley Parkway Project, 05-SB-101-PM 83.1/83.9, EA 05-463800

Affiliation: Caltrans District 5

No. pages: 83

No. maps:

Attributes: Archaeological, Field study

Inventory size: 62 acres

Disclosure: Not for publication

Collections: No

General notes

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Santa Barbara

USGS quad(s): Santa Maria

Address:

PLSS:

Database record metadata

	<i>Date</i>	<i>User</i>	
<i>Entered:</i>	9/8/2014	jay	
<i>Last modified:</i>	3/8/2018	Malachi Allen	
<i>IC actions:</i>	<i>Date</i>	<i>User</i>	<i>Action taken</i>
	9/8/2014	jay	Appended record from Filemaker bibliography database.
	3/8/2018	Malachi Allen	Fixed date.

Record status:

Report Detail: SR-04601

Identifiers

Report No.: SR-04601

Other IDs:

Cross-refs:

Citation information

Author(s): Joyce L. Gerber and Leeann Haslouer

Year: 2006 (Apr)

Title: Archaeological Survey Report for the Union Valley Parkway Extension in Santa Maria, Santa Barbara County, California

Affiliation: Applied EarthWorks, Inc.

No. pages: 20

No. maps: 3

Attributes: Archaeological, Field study

Inventory size: 76

Disclosure: Unrestricted

Collections: No

General notes

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Santa Barbara

USGS quad(s): Santa Maria

Address:

PLSS:

Database record metadata

	Date	User	
Entered:	9/9/2014	jay	
Last modified:	8/3/2018	Matthew LoBia	
IC actions:	Date	User	Action taken
	9/9/2014	jay	Appended placeholder record (not present in Filemaker bibliography database).
	8/3/2018	Matthew LoBian	GIS edited.

Record status:

Report Detail: SR-04602

Identifiers

Report No.: SR-04602

Other IDs:

Cross-refs:

Citation information

Author(s): Christeen Taniguchi, Ben Taniguchi, David Livingstone, Peggy Beedle, Sandra S. Flint, and Randy Baloian

Year: 2007 (Dec)

Title: Historical Resources Evaluation Report for the Union Valley Parkway Extension Project in Santa Maria, Santa Barbara County, California

Affiliation: Galvin Preservation Associates, Inc.

No. pages: 30

No. maps:

Attributes: Architectural/Historical, Field study

Inventory size: ~9000 square feet

Disclosure: Not for publication

Collections: No

General notes

size not listed for all buildings, estimated area

Associated resources

Primary No.	Trinomial	Name
P-42-040899		
P-42-040900		
P-42-040901		
P-42-040902		
P-42-040903		
P-42-040904		

No. resources: 6

Has informals: No

Location information

County(ies): Santa Barbara

USGS quad(s): Santa Maria

Address:

PLSS:

Database record metadata

Date	User	Action taken
Entered: 9/9/2014	jay	
Last modified: 2/18/2016	CCIC4	
IC actions: Date	User	Action taken
9/9/2014	jay	Appended placeholder record (not present in Filemaker bibliography database).

Record status:

Report Detail: SR-04603

Identifiers

Report No.: SR-04603

Other IDs:

Cross-refs:

Citation information

Author(s): Wendy M. Nettles

Year: 2008 (Jan)

Title: Historic Property Survey Report, Union Valley Parkway

Affiliation: Applied EarthWorks, Inc.

No. pages: 6

No. maps:

Attributes: Archaeological, Architectural/Historical, Field study

Inventory size: 56 acres

Disclosure: Not for publication

Collections: No

Sub-desig.: A

Author(s): Krista Kiaha

Year: 2007 (Nov)

Title: Archaeological Survey Report: Union Valley Parkway Project 05-SB-101-PM 83.1/83.9, EA 05-463800

Affiliation: Caltrans District 5

Report type(s): Archaeological, Field study

Inventory size:

No. pages: 5

Disclosure: Not for publication

Collections: No

PDF Pages: 7-11

Sub-desig.: B

Author(s): Gerber

Year: 2000

Title: Not attached to report, only listed as an attachment within it.

Affiliation:

Report type(s): Archaeological

Inventory size:

No. pages:

Disclosure:

Collections:

PDF Pages: -

Sub-desig.: C

Author(s): Gerber

Year: 2001

Title: Not attached to report, only listed as attached within it.

Affiliation:

Report type(s): Archaeological

Inventory size:

No. pages:

Disclosure:

Collections:

PDF Pages: -

Report Detail: SR-04603

Sub-desig.: D

Author(s): Joyce L. Gerber and Leeann Haslouer

Year: 2006 (Apr)

Title: Archaeological Survey Report for the Union Valley Parkway Extension in Santa Maria, Santa Barbara County, California

Affiliation: Applied EarthWorks, Inc.

Report type(s): Archaeological, Field study

Inventory size:

No. pages: 20

Disclosure: Not for publication

Collections: No

PDF Pages: 12-31

Sub-desig.: E

Author(s): Christeen Taniguchi, Ben Taniguchi, David Livingstone, Peggy Beedle, Sandra S. Flint, and Randy Baloian

Year: 2007 (Dec)

Title: Historical Resources Evaluation Report for the Union Valley Parkway Extension Project in Santa Maria, Santa Barbara County, California

Affiliation: Galvin Preservation Associates Inc.

Report type(s): Architectural/Historical, Field study

Inventory size:

No. pages: 30

Disclosure: Not for publication

Collections: No

PDF Pages: 32-61

General notes

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Santa Barbara

USGS quad(s): Santa Maria

Address:

PLSS:

Database record metadata

<i>Date</i>	<i>User</i>	
<i>Entered:</i> 9/8/2014	jay	
<i>Last modified:</i> 1/9/2017	Alicia_Gorman	
<i>IC actions:</i> Date	<i>User</i>	<i>Action taken</i>
9/8/2014	jay	Appended record from Filemaker bibliography database.
1/9/2017	Alicia_Gorman	Added attachments and additional citations (some could not be filled out completely due to missing attachments).

Record status:

Report Detail: SR-04604

Identifiers

Report No.: SR-04604

Other IDs:

Cross-refs:

Citation information

Author(s): Robert R. Peterson, Jr.

Year: 2008 (Jun)

Title: Supplemental Historic Property Survey Report

Affiliation: Applied EarthWorks, Inc.

No. pages: 21

No. maps:

Attributes: Archaeological, Architectural/Historical, Field study

Inventory size: 12.5

Disclosure: Not for publication

Collections: No

Sub-desig.: A

Author(s): Robert R. Peterson

Year: 2008 (June)

Title: First Supplemental Archaeological Survey Report: UVP Gap, Union Valley Parkway Extension/Interchange, Santa Maria, Santa Barbara County, California

Affiliation: Applied EarthWorks

Report type(s): Archaeological, Field study

Inventory size:

No. pages: 15

Disclosure: Not for publication

Collections: No

PDF Pages: 7-21

General notes

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Santa Barbara

USGS quad(s): Santa Maria

Address:

PLSS:

Database record metadata

	Date	User	
Entered:	9/9/2014	jay	
Last modified:	1/9/2017	Alicia_Gorman	
IC actions:	Date	User	Action taken
	9/9/2014	jay	Appended placeholder record (not present in Filemaker bibliography database).

Record status:

Report Detail: SR-04605

Identifiers

Report No.: SR-04605

Other IDs:

Cross-refs:

Citation information

Author(s): Robert R. Peterson, Jr.

Year: 2008

Title: Supplemental Historical Property Survey Report, Union Valley Pkwy/US101

Affiliation: Applied EarthWorks, Inc.

No. pages: 6

No. maps: 2

Attributes: Archaeological, Field study

Inventory size: 12.5

Disclosure: Not for publication

Collections: No

General notes

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Santa Barbara

USGS quad(s): Santa Maria

Address:

PLSS:

Database record metadata

	<i>Date</i>	<i>User</i>	
<i>Entered:</i>	9/9/2014	jay	
<i>Last modified:</i>	8/3/2018	Matthew LoBia	
<i>IC actions:</i>	<i>Date</i>	<i>User</i>	<i>Action taken</i>
	9/9/2014	jay	Appended placeholder record (not present in Filemaker bibliography database).
	8/3/2018	Matthew LoBian	GIS edited.

Record status:

Report Detail: SR-04794

Identifiers

Report No.: SR-04794

Other IDs:

Cross-refs:

Citation information

Author(s): Post / Hazeltine Associates

Year: 2012 (Feb)

Title: Phase III Historic Resources Documentation Report for 4470 Orcutt Road APN 107-250-011, 107-250-012, 107-250-013

Affiliation: Post / Hazeltine Associates

No. pages: 256

No. maps:

Attributes: Architectural/Historical, Evaluation

Inventory size: 50 acres

Disclosure: Not for publication

Collections: No

General notes

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Santa Barbara

USGS quad(s): Santa Maria

Address:

PLSS:

Database record metadata

	<i>Date</i>	<i>User</i>	
	Entered: 9/8/2014	jay	
	Last modified: 4/6/2016	CCIC4	
<i>IC actions:</i>	<i>Date</i>	<i>User</i>	<i>Action taken</i>
	9/8/2014	jay	Appended record from Filemaker bibliography database.

Record status:

Appendix B

Sacred Lands File Search

NATIVE AMERICAN HERITAGE COMMISSION

August 2, 2021

Ryan Glenn
Rincon Consultants, Inc.Via Email to: rglenn@rinconconsultants.com**Re: Brookside Avenue Fire Station Project, Santa Barbara County**

Dear Mr. Glenn:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green
Cultural Resources Analyst

Attachment

CHAIRPERSON
Laura Miranda
LuiseñoVICE CHAIRPERSON
Reginald Pagaling
ChumashSECRETARY
Merri Lopez-Keifer
LuiseñoPARLIAMENTARIAN
Russell Attebery
KarukCOMMISSIONER
William Mungary
Paiute/White Mountain
ApacheCOMMISSIONER
Julie Tumamait-
Stenslie
ChumashCOMMISSIONER
[Vacant]COMMISSIONER
[Vacant]COMMISSIONER
[Vacant]EXECUTIVE SECRETARY
Christina Snider
Pomo**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

**Native American Heritage Commission
Native American Contact List
Santa Barbara County
8/2/2021**

**Barbareno/ Ventureno Band of
Mission Indians**

Brenda Guzman,
58 N. Ann Street, #8 Chumash
Ventura, CA, 93001
Phone: (209) 601 - 4676
brendamguzman@gmail.com

**Northern Chumash Tribal
Council**

Fred Collins, Spokesperson
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This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Brookside Avenue Fire Station Project, Santa Barbara County.

Attachment D

Energy Calculation Sheets

Post-2020, Pre-2030 Projects

	2021	2030
Percent procurement	28.5	60
CO2 (lbs/MWh)	203.98	114.11
CH4 (lbs/MWh)	0.033	0.018
N2O (lbs/MWh)	0.004	0.002

Sources for Renewables Procurement Percentage

PG&E	2021	28.5%	https://www.energy.ca.gov/filebrowser/download/3245
SDG&E	2021	31.3%	https://www.energy.ca.gov/filebrowser/download/3257
SCE	2021	35.1%	https://www.energy.ca.gov/filebrowser/download/3265
Other Utilities			https://www.energy.ca.gov/programs-and-topics/programs

Post-2030, Pre-2045 Projects

	2021	2030	2040	2045
Percent procurement	35.1	60	86.67	100
CO2 (lbs/MWh)	391	114.11	38.04	0
CH4 (lbs/MWh)	0.033	0.018	0.006	0
N2O (lbs/MWh)	0.004	0.002	0.001	0

s/power-source-disclosure/power-content-label/annual-power-content-0

Attachment E

Phase I Environmental Site Assessment



Phase I Environmental Site Assessment

Brookside Avenue
Assessor's Parcel Number 107-321-013
Santa Maria, California

prepared for
County of Santa Barbara

prepared by
Rincon Consultants, Inc.

April 22, 2020



RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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April 22, 2020
Project 20-09360

Susan Freebourn, Real Property Agent II
County of Santa Barbara, General Services Department
1105 Santa Barbara Street, Second Floor
Santa Barbara, California 93101
Via email: sfreebourn@countyofsb.org

**Subject: Phase I Environmental Site Assessment
Brookside Avenue
Assessor's Parcel Number (APN) 107-321-013
Santa Maria, California**

Dear Ms. Freebourn:

This report presents the findings of a Phase I Environmental Site Assessment (ESA) completed by Rincon Consultants, Inc. for the property located at the western terminus of Brookside Avenue, identified as Assessor's Parcel Number (APN) 107-321-013, in Santa Maria, California. The Phase I ESA was performed in accordance with our proposal and contract dated March 20, 2020.

The accompanying report presents our findings and provides an opinion regarding the presence of recognized environmental conditions in connection with the subject property. Our work program for this project, as referenced in our contract, is intended to meet the guidelines outlined in the American Society for Testing and Materials (ASTM), Standard Practice for Environmental Site Assessments: *Phase I Environmental Site Assessment Process* (ASTM Standard E1527-13). Our scope of services, pursuant to ASTM practice, did not include any inquiries with respect to asbestos, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, vapor intrusion or other indoor air quality, mold, or high-voltage power lines.

Thank you for selecting Rincon for this project. If you have any questions, or if we can be of any future assistance, please contact us.

Sincerely,
Rincon Consultants, Inc.

Lauren Kodama Roenicke
Project Manager

Walt Hamann, PG, CEG, CHG
Principal

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- Appendix B Regulatory Records Search
- Appendix C Historical Research Documentation



Executive Summary

This report presents the findings of a Phase I Environmental Site Assessment (ESA) for the property identified as Assessor's Parcel Number (APN) 107-321-013 in Santa Maria, California (Figure 1, Vicinity Map). The Phase I ESA was performed for the County of Santa Barbara (Client) by Rincon Consultants, Inc. (Rincon). Client has requested this assessment and will use the information for the purpose of purchasing the subject property. The subject property is currently vacant, undeveloped land.

The subject property is located in an area that is primarily composed of residential and vacant land uses. Properties in the vicinity of the subject property include vacant, undeveloped land and single-family residences.

Rincon performed a reconnaissance of the subject property on April 15, 2020. The purpose of the reconnaissance was to observe existing conditions and to obtain information indicating the presence of recognized environmental conditions (RECs) in connection with the subject property. Trash/debris were observed throughout the subject property. During the site reconnaissance, two metal pipes labeled, "Warning Gas Pipeline" were observed in the southwestern corner of the subject property. In addition, two gas pipeline markers were observed, one in the southwestern corner and one adjacent to the southeastern corner of the subject property. For the purposes of this Phase I ESA, we are interpreting that the "gas" pipeline markers observed are indicative of natural gas pipelines. Pipes that appear to be vent pipes were also observed.

A regulatory database search was conducted by LightBox for sites that generate, store, treat, or dispose of hazardous materials or sites for which a release or incident has occurred. The search was conducted for the subject property and included data from surrounding sites within a specified radius of the property. The subject property and adjacent properties were not listed in any of the databases searched by LightBox. One nearby release site within one-half mile of the subject property was identified; based on our review of the information provided, the release from this property is not expected to impact the subject property.

Historical sources reviewed as part of the Phase I ESA include aerial photographs and topographic maps. The photos and maps reviewed indicate that the subject property has remained vacant, undeveloped land since at least 1905.

Based on the findings of this Phase I ESA, it is our opinion that there are no RECs in connection with the subject property; however, there is one unknown environmental condition in connection with the subject property as follows.

Unknown Environmental Condition

1. Gas pipeline markers observed onsite and adjacent to the subject property

If Client wishes to further investigate the gas pipeline markers, Client may wish to conduct a soil vapor assessment at the subject property to determine whether the subject property has been impacted by the presence of the natural gas pipeline.



Introduction

This report presents the findings of a Phase I Environmental Site Assessment (ESA) conducted for the property identified as Assessor's Parcel Number (APN) 107-321-013 in Santa Maria, California (Figure 1, Vicinity Map). The Phase I ESA was performed by Rincon Consultants, Inc. (Rincon) for the County of Santa Barbara (Client) in general conformance with American Society for Testing and Materials (ASTM) E1527-13, and our proposal and contract dated March 20, 2020. The following sections present our findings and provide our opinion as to the presence of recognized environmental conditions (RECs) on the subject property.

Purpose

Client has requested this assessment and will use the information for the purpose of purchasing the subject property. The purpose of this Phase I ESA was to determine if there are RECs on the subject property, taking into account commonly and reasonably ascertainable information and to qualify for Landowner Liability Protections under the Brownfields Amendments to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

A REC is defined pursuant to ASTM E1527-13 as,

“the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment; 3) under conditions that pose a material threat of a future release to the environment”.

A Controlled REC is defined pursuant to ASTM E1527-13 as,

“a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the environmental professional to be a controlled recognized environmental condition shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report”.

A Historical REC is defined pursuant to ASTM E1527-13 as,

“a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by regulatory authority, without subjecting the property to any required controls (for example, use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in



the regulatory criteria). If the EP [Environmental Professional] considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition”.

A *de minimis* condition is defined pursuant to ASTM E1527-13 as,

“a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* conditions are not recognized environmental conditions nor controlled recognized environmental conditions”.

Scope of Services

The scope of services conducted during this study is outlined below:

- Performed a reconnaissance of the subject property to identify obvious indicators of the existence of hazardous materials.
- Observed adjacent or nearby properties from public thoroughfares in an attempt to see if such properties are likely to use, store, generate, or dispose of hazardous materials.
- Obtained and reviewed an environmental records database search to obtain information about the potential for hazardous materials to exist at the subject property or at properties located in the vicinity of the subject property.
- Reviewed files for the subject property and immediately adjacent properties as identified in the database report, as applicable.
- Reviewed the current United States Geological Survey (USGS) topographic map to obtain information about the subject property and regional topography and uses of the subject property and surrounding sites.
- Reviewed additional pertinent record sources (e.g., California Geologic Energy Management Division [CalGEM] records, online databases of hazardous substance release sites), as necessary, to identify the presence of RECs at the subject property.
- Reviewed the California State Water Resources Control Board (SWRCB) 2019 Statewide Per- and Polyfluoroalkyl Substances (PFAS) Investigation online Public Map Viewer regarding current PFAS orders at any facilities located in the vicinity of the subject property.
- Reviewed reasonably ascertainable historical resources (e.g., aerial photographs, topographic maps, fire insurance maps, city directories) to assess the historical land use of the subject property and adjacent properties.
- Provided a user interview questionnaire to a representative of the client, the user of the Phase I ESA.
- Provided a property owner interview questionnaire to the property owner or a designated subject property representative identified to Rincon by the client.
- Conducted interviews with other property representatives (e.g., key site manager, occupants), as applicable.
- Reviewed available client-provided information (e.g., previous environmental reports, title documentation).



Significant Assumptions, Limitations, Deviations, Exceptions, Special Terms, and Conditions

This work is intended to adhere to good commercial, customary, and generally accepted environmental investigation practices for similar investigations conducted at this time and in this geographic area. No guarantee or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from a site reconnaissance, review of an environmental database report, specified regulatory records and historical sources, and comments made by interviewees. This report is not intended as a comprehensive site characterization and should not be construed as such. Standard data sources relied upon during the completion of Phase I ESAs may vary with regard to accuracy and completeness. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research.

Rincon has not found evidence that hazardous materials or petroleum products exist at the subject property at levels likely to warrant mitigation. Rincon does not under any circumstances warrant or guarantee that not finding evidence of hazardous materials or petroleum products means that hazardous materials or petroleum products do not exist on the subject property. Additional research, including surface or subsurface sampling and analysis, can reduce Client's risks, but no techniques commonly employed can eliminate these risks altogether.

In addition, pursuant to ASTM E1527-13 practice, our scope of services did not include any inquiries with respect to asbestos-containing building materials, biological agents, cultural and historic resources, ecological resources, endangered species, health and safety, indoor air quality unrelated to release of hazardous substances or petroleum products into the environment, industrial hygiene, lead-based paint, lead in drinking water, mold, radon, regulatory compliance, wetlands, or high-voltage power lines.

User Reliance

Client has requested this assessment and will use the information for the purpose of purchasing or acquiring the subject property. This Phase I ESA was prepared for use solely and exclusively by the Santa Barbara County Fire Protection District. No other use or disclosure is intended or authorized by Rincon. Also, this report is issued with the understanding that it is to be used only in its entirety. It is intended for use only by the client, and no other person or entity may rely upon the report without the express written consent of Rincon.

Site Description

Location

The subject property is a 4.6-acre parcel located at the western terminus of Brookside Avenue in Santa Maria, California (Figure 2, Site Map). The property is identified as APN 107-321-013.

Subject Property and Vicinity General Characteristics

The subject property is currently vacant, undeveloped land.



The subject property is located in an area that is primarily composed of residential and vacant land uses. Properties in the vicinity of the subject property include vacant, undeveloped land and single-family residences. The current adjacent land uses are described in Table 1 and depicted on Figure 3, Adjacent Land Use Map.

Table 1 Current Uses of Adjacent Properties

Area	Use
Northern Properties	Single-family residences
Eastern Properties	Brookside Avenue and single-family residences
Southern Properties	E Union Valley Parkway followed by vacant, undeveloped land and residential development
Western Properties	Vacant, undeveloped land

Descriptions of Structures, Roads, Other Improvements on the Subject Property

Access to the subject property is available from Brookside Avenue.

Although no utilities are currently located at the subject property, the following utility providers service the subject property area:

- Electrical & Natural Gas Service – Pacific Gas & Electric
- Water & Sewer Service – City of Santa Maria
- Solid Waste Service – City of Santa Maria



User-Provided Information

As described in ASTM E1527-13 Section 6, the County of Santa Barbara was interviewed for actual knowledge pertaining to the subject property to help identify RECs in connection with the subject property. Carlo Achdjian, Real Property Manager for the County of Santa Barbara, completed the User Questionnaire as provided by ASTM E1527-13 Appendix X3 prior to completion of the site reconnaissance on April 6, 2020. A copy of the completed questionnaire is included as Appendix A.

Based on our review of the completed questionnaire, Mr. Achdjian did not review the following sources of information and is unaware of information regarding the following:

- Recorded land title records (or judicial records, where appropriate) that identify any environmental liens filed or recorded against the subject property
- Recorded land title records (or judicial records, where appropriate) that identify any activity and land use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the subject property under federal, tribal, state or local law
- Title Report that identifies information pertaining to environmental cleanup liens or AULs for the subject property

Based on our review of the completed questionnaire, Mr. Achdjian is unaware of information regarding the following:

- Specialized knowledge or experience related to the subject property or nearby properties
- Reduction in value for the subject property relative to any known environmental issues
- Commonly known or reasonably ascertainable information about the subject property that would help the environmental professional to identify conditions indicative of releases or threatened releases
- Obvious indicators that point to the presence or likely presence of releases at the subject property
- Pending, threatened, or past litigation relevant to hazardous substances or petroleum products, in, on, or from the subject property
- Pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property
- Notice from any government entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products



Records Review

Physical Setting Sources

Topography

The current USGS topographic map (Santa Maria Quadrangle, 2018) indicates that the subject property is situated at an elevation of about 400 feet above mean sea level with topography sloping down to the west northwest.

Geology and Hydrogeology

According to the California Geological Survey (CGS), California Geomorphic Provinces, Note 36¹, the subject property is located within the Coast Ranges Geomorphic Province. The Coast Ranges are northwest-trending mountain ranges (2,000 to 4,000, occasionally 6,000 feet elevation above sea level), and valleys. The ranges and valleys trend northwest, subparallel to the San Andreas Fault. Strata dip beneath alluvium of the Great Valley. To the west is the Pacific Ocean. The coastline is uplifted, terraced and wave-cut. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. The eastern border is characterized by strike-ridges and valleys in Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields. The Coast Ranges are subparallel to the active San Andreas Fault. The San Andreas is more than 600 miles long, extending from Pt. Arena to the Gulf of California. West of the San Andreas is the Salinian Block, a granitic core extending from the southern extremity of the Coast Ranges to the north of the Farallon Islands.

Site Geology

According to the current USGS Geologic Map (Santa Maria and Twitchell Dam Quadrangles, 1994) the subject property is underlain by Quaternary-aged older alluvium, specifically wind deposited sand.

Regional Groundwater Occurrence and Quality

The subject property is located within the Santa Maria groundwater basin.

During the preparation of this Phase I ESA, we reviewed the California SWRCB's online GeoTracker database to determine groundwater flow direction in the vicinity of the subject property. According to *Case Closure Summary, Righetti High School, 941 E Foster Road, Santa Maria, California* prepared by the Santa Barbara County Fire Department and dated October 3, 2007, groundwater is estimated to be encountered at approximately 50 feet below ground surface. This groundwater flow direction is unknown. This property is located approximately 0.24-mile northeast of the subject property.

¹ <https://www.conservation.ca.gov/cgs/Documents/CGS-Note-36.pdf>



Standard Environmental Record Sources

LightBox was contracted to provide a database search of public lists of sites that generate, store, treat, or dispose of hazardous materials or sites for which a release or incident has occurred. The LightBox search was conducted for the subject property and included data from surrounding sites within specified radii of the property. A copy of the LightBox report, which specifies the ASTM E1527-13 search distance for each public list, is included as Appendix B. As shown on the attached LightBox report, federal, state, and county lists were reviewed as part of the research effort. Please refer to Appendix B for a complete listing of sites reported by LightBox and a description of the databases reviewed.

The Map Findings Summary, included in the LightBox report, provides a summary of the databases searched, the number of reported facilities within the search radii, and whether the facility is located onsite or adjacent to the subject property. The following information is based on our review of the Map Findings Summary and the information contained in the LightBox report.

Subject Property

The subject property was not listed on any of the regulatory databases reviewed.

Offsite Properties

Offsite properties listed by LightBox fall under two general categories of databases: those reporting unauthorized releases of hazardous substances (e.g., Leaking Underground Storage Tank [LUST], National Priority List [a.k.a. Superfund sites], and corrective action facilities), and databases of businesses permitted to use hazardous materials or generate hazardous wastes, for which an unauthorized release has not been reported to a regulatory agency.

Rincon reviewed the LightBox Radius Map and select detailed listings to evaluate their potential to impact the subject property, based on the following factors:

- Reported distance of the facility from the subject property;
- The nature of the database on which the facility is listed, and/or whether the facility was listed on a database reporting unauthorized releases of hazardous materials, petroleum products, or hazardous wastes;
- Reported case type (e.g., soil only, failed underground storage tank [UST] test only);
- Reported substance released (e.g., chlorinated solvents, gasoline, metals);
- Reported regulatory agency status (e.g., case closed, “no further action”); and,
- Location of the facility with respect to the reported groundwater flow direction (discussed in the Geology and Hydrogeology section of this report)

Facilities/properties that were interpreted by Rincon to be of potential environmental concern to the subject property, based on one or more of the factors listed above, are summarized in Table 2. In accordance with ASTM E1527-13, contamination migration pathways in soil, groundwater, and soil vapor were considered in our analysis of offsite properties of potential environmental concern.



Table 2 LightBox Listing Summary of Select Sites Within One-Half Mile of the Subject Property

Site Name	LightBox Site ID	Site Address	Distance from Subject Property	Database Reference	Comments
Nearby Release Site					
Righetti High School	B7, B8	941 E Foster Road	Less than ½ Mile – Northeast	LUST	A release of gasoline impacted soil in January 2003, associated with the removal of a 1,000-gallon gasoline UST. Case closed in May 2003. Based on the distance from the subject property and the soil only nature of the release, this property is not expected to impact the subject property.

***Bold** listings indicate a release database

Regulatory agency information reviewed for the listings in the table above are summarized in the Additional Environmental Record Sources section of this report.

Orphan Listings

LightBox reported three orphan or unmapped site listings, which LightBox is unable to plot due to insufficient address information. Based on Rincon's review of the limited address information or site descriptions for the orphan listings, none of the listings are expected to impact the subject property.

Additional Environmental Record Sources

Review of Agency Files

As a follow-up to the database search, Rincon reviewed regulatory information for the subject property and facilities within the specified search radii that were interpreted to have the potential to impact the subject property, based on one or more factors previously discussed (e.g., distance, open case status, upgradient location, soil vapor migration).

The following is a summary of our review of regulatory information obtained from review of online sources (e.g., SWRCB GeoTracker database, Department of Toxic Substances Control [DTSC] EnviroStor database, local fire department) and/or files requested from the applicable regulatory agency, as described below.

Subject Property

The subject property was not listed in any of the databases searched by LightBox.

Adjacent Properties

Adjacent properties were not listed in any of the databases searched by LightBox.

Nearby Release Site

One nearby release site within one-quarter mile of the subject property was identified by LightBox. Based on the distance from the subject property, the soil only nature of the release and the closed case status, the upgradient release site identified in the LightBox report is not expected to impact the subject property.

Review of State of California Geologic Energy Management Division (CalGEM) Records

A review of the State of California Geologic Energy Management Division (CalGEM) Online Mapping System² indicates that no oil wells are located on the subject property or adjacent properties. The following oil wells are located within one-quarter mile of the subject property:

- API 0408321450 – Idle oil and gas well operated by HVI Cat Canyon, Inc. – located approximately 450 feet south southwest of the subject property
- API 0408321336 – Idle oil and gas well operated by HVI Cat Canyon, Inc. – located approximately 450 feet south southwest of the subject property

² <https://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx>



Phase I Environmental Site Assessment

- API 0408321509 – Idle oil and gas well operated by HVI Cat Canyon, Inc. – located approximately 450 feet south southwest of the subject property
- API 0408321472 – Idle oil and gas well operated by HVI Cat Canyon, Inc. – located approximately 1,000 feet west of the subject property
- API 0408321507 – Idle oil and gas well operated by Coastal Oil and Gas Corporation – located approximately 1,025 feet west of the subject property
- API 0408321506 – Cancelled oil and gas well operated by Coastal Oil and Gas Corporation – located approximately 1,038 feet west of the subject property
- API 0408321505 – Cancelled oil and gas well operated by Coastal Oil and Gas Corporation – located approximately 1,060 feet west of the subject property

Review of National Pipeline Mapping System Records

A review of the National Pipeline Mapping System (NPMS) online Public Map Viewer³ indicates that no gas transmission pipelines or hazardous liquid pipelines are located on the subject property or adjacent properties.

However, during the site reconnaissance, four gas pipeline markers were observed along the southern boundary of the subject property. For the purposes of this Phase I ESA, we are interpreting the “gas” pipeline markers to be indicative of a natural gas pipeline.

Review of California Statewide PFAS Investigation

In 2019, the California SWRCB sent assessment requirements to property owners of sites that may be potential sources of PFAS. These sites currently include select landfills, airports, and chrome plating facilities. According to the SWRCB, “PFAS are a large group of human-made substances that do not occur naturally in the environment and are resistant to heat, water, and oil” (SWRCB 2019).

Our April 6, 2020 review of the California 2019 Statewide PFAS Investigation online Public Map Viewer⁴ indicates that there are no current chrome plating, airport, or landfill PFAS orders at any facilities located within one-half mile of the subject property.

Our April 6, 2020 review of the California 2019 Statewide Drinking Water System Quarterly Testing Results online Public Map Viewer indicates that PFAS were not detected in the closest drinking water well to the subject property, located approximately 0.58-mile northwest of the subject property.

Known or Suspect Contaminated Release Sites with Potential Vapor Migration

The LightBox report was reviewed to identify nearby known or suspect contaminated sites that have the potential for contaminated vapor originating from the nearby site to be migrating beneath the subject property. Based on the ASTM E2600-15, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*, the following minimum search distances were

³ <https://www.npms.phmsa.dot.gov/PublicViewer/>

⁴ <https://www.waterboards.ca.gov/pfas/>



initially used to determine if contaminated soil vapors from a nearby known or suspect contaminated site have the potential to be migrating beneath the subject property:

- 1/10 mile (528 feet) for petroleum hydrocarbons
- 1/3 mile (1,760 feet) for other contaminants of concern (COCs)

If known or suspect contaminated sites are located within the above referenced distances from the subject property, online resources are reviewed to determine the extent of the contaminated plume at those sites. The following describes search distances for contaminated plumes of petroleum hydrocarbons (30 feet from the subject property) and other COCs (100 feet from the subject property). Per ASTM E2600-15, vapors associated with impacted soil or groundwater present within these distances have the potential to migrate beneath the subject property.

Petroleum Hydrocarbons

Based on our review of the LightBox report, no releases on the subject property or adjacent properties have the potential to have petroleum hydrocarbon-impacted soil vapor migrating beneath the subject property. Therefore, per ASTM E2600-15, as this distance exceeds the 30-foot distance considered the critical distance wherein such migration may pose a threat to the subject property, there are no potential threats to the subject property posed by the potential migration of other petroleum hydrocarbon vapors from listed sites.

Other COCs

Based on our review of the LightBox report, there are no known or suspect sites contaminated with other COCs within 1,760 feet of the subject property. Therefore, per ASTM E2600-15, as this distance exceeds the 100-foot distance considered the critical distance wherein such migration may pose a threat to the subject property, there are no potential threats to the subject property posed by the potential migration of other COC vapors from listed sites.

Historical Use Information on the Property and the Adjoining Properties

The historical records review completed for this Phase I ESA includes aerial photographs and topographic maps as detailed in the following sections. Copies of the historical resources reviewed are included in Appendix C.

Review of Aerial Photographs

Aerial photographs from LightBox's aerial photograph collection were obtained. In addition, a current aerial from Google Earth was reviewed. The aerial photographs were reviewed on April 20, 2020.

Review of Historical Topographic Maps

Historical topographic maps from LightBox's map collection were obtained. The historical topographic maps were reviewed on April 20, 2020.



Review of City Directory Listings

City directories were not reviewed as part of this research effort.

Review of Fire Insurance Maps

Fire insurance maps were not reviewed as part of this research effort.

Review of City of Santa Maria Building Permit Records

Based on the sufficient amount of information obtained from the above sources and the fact that the subject property has never been developed with structures, building permit records were not reviewed.

Other Historical Sources

Based on the historical information obtained, no additional historical sources were reviewed.

Summary of Historical Uses

Subject Property

Based on our review of the documents listed above, it appears that the subject property was developed with the following:

- 1905: Vacant land
- 1938, 1943, 1948, and 1954: Vacant land on eastern portion, dense vegetation on western portion
- 1959: Vacant land
- 1967: Vacant land on eastern portion, trees/vegetation on western portion
- 1974: Vacant land
- 1975, 1975, and 1981: Vacant land on eastern portion, trees/vegetation on western portion; dirt trails visible
- 1982: Vacant land
- 1994, 2005, 2009, 2012, 2016, and 2018: Vacant land on eastern portion, trees/vegetation on western portion; few dirt trails visible

Northern Adjacent Properties (Residential)

Based on our review of the documents listed above, it appears that the northern adjacent properties were developed with the following:

- 1905: Vacant land
- 1938, 1943, 1948, and 1954: Vacant land on eastern portion, dense vegetation on western portion
- 1959: Vacant land
- 1967: Single-family residences



- 1974: Shaded, indicating an urban area
- 1975, 1978, and 1981: Single-family residences
- 1982: Shaded, indicating an urban area
- 1994, 2005, 2009, 2012, 2016, and 2018: Single-family residences

Eastern Adjacent Properties (Residential)

Based on our review of the documents listed above, it appears that the eastern adjacent properties were developed with the following:

- 1905, 1938, 1943, 1948, 1954, and 1959: Vacant land
- 1967: Single-family residences
- 1974: Shaded, indicating an urban area
- 1975, 1978, and 1981: Single-family residences
- 1982: Shaded, indicating an urban area
- 1994, 2005, 2009, 2012, 2016, and 2018: Single-family residences

Southern Adjacent Properties

Based on our review of the documents listed above, it appears that the southern adjacent properties were developed with the following:

- 1905, 1938, 1943, 1948, 1954, 1959, 1967, 1974, 1975, 1978, 1981, and 1982: Vacant land (dirt trails visible by 1975)
- 1994, 2005, 2009, 2012, 2016, and 2018: E Union Valley Parkway followed by vacant land and residential developments

Western Adjacent Properties (Vacant, undeveloped land)

Based on our review of the documents listed above, it appears that the western adjacent properties were developed with the following:

- 1905: Vacant land
- 1938 1943, and 1948: Vacant land with some vegetation
- 1954: Single rectangular structure
- 1959: Vacant land
- 1967: Vacant land with some vegetation, dirt trails visible
- 1974: Vacant land
- 1975, 1978, and 1981: Vacant land with some vegetation, dirt trails visible
- 1982: Vacant land with undeveloped road
- 1994, 2005, 2009, 2012, 2016, and 2018: Vacant land with some vegetation, dirt trails visible



Gaps in Historical Sources

Several gaps of greater than five years were identified in the historical records reviewed, from 1905 to 1938, from 1948 to 1954, from 1959 to 1967, from 1967 to 1974, from 1981 to 1994, and from 1994 to 2005. These gaps are considered insignificant because the subject property use appears to be similar prior to and following the gaps.



Interviews

Rincon performed interviews regarding the subject property and surrounding areas. The purpose of the interviews was to discuss current and historical conditions and to obtain information indicating the presence of RECs in connection with the subject property.

Interview with Owner

An interview questionnaire was provided to the property owner prior to the site reconnaissance. J Edward McCoy, Trustee, completed the Owner Questionnaire on April 14, 2020. A copy of the completed questionnaire is included in Appendix A. The following information is based on our review of the completed questionnaire.

Mr. McCoy indicated that there are no storage tanks (above or below ground), sumps, clarifiers, solvent degreasers, stained soil, storage tanks, vent pipes, fill pipes, access ways, stained surfaces, private wells, non-public water systems, transformers, capacitors, or hydraulic equipment, records indicating the presence of polychlorinated biphenyls, or records indicating the presence of pesticides or herbicides at the subject property.

Mr. McCoy also indicated that he is not aware of any pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property. In addition, he is not aware of any notice from any government entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products at the subject property.

Interview with Site Manager

A site manager was not identified to Rincon.

Interviews with Occupants

Because the subject property is currently vacant, undeveloped land, no occupants were interviewed as part of this research effort.

Interviews with Local Government Officials

Because the subject property was not listed on any of the regulatory databases reviewed, no local government officials were interviewed.

Interviews with Others

Rincon did not attempt to interview neighboring property owners or others as part of this Phase I ESA.



Site Reconnaissance

Rincon performed a reconnaissance of the subject property on April 15, 2020. The purpose of the reconnaissance was to observe existing subject property conditions and to obtain information indicating the presence of RECs in connection with the subject property. Site photographs are included as Figures 4 and 5.

Methodology and Limiting Conditions

The site reconnaissance was conducted by:

1. Observing the subject property from public thoroughfares,
2. Observing the adjacent properties from public thoroughfares,
3. Observing the subject property from walking paths/sidewalks.

Because of the large size of the subject property, several east-west or north-south walking transects were completed across the subject property. Our observation of the subject property was limited by physical obstructions including dense brush.

Current Use of the Property and Adjacent Properties

The subject property is currently vacant, undeveloped land. Adjacent properties include single-family residences and vacant land.

Past Use of the Property and Adjacent Properties

Based on our site reconnaissance, past uses at the subject property and adjacent properties are not readily apparent.

Current or Past Uses in the Surrounding Areas

The subject property is surrounded by residential and vacant land uses as detailed in the Site Description section of this report. Past uses of the surrounding area are not readily apparent based on the site reconnaissance.

Geologic, Hydrogeologic, Hydrologic, and Topographic Conditions

Geologic, hydrogeologic, hydrologic, and topographic information are as previously stated in the Physical Settings Section of this report.

General Description of Structures

No structures were observed on the subject property.



Roads

No roads are located on the subject property. The western terminus of Brookside Avenue is located adjacent to the east and E Union Valley Parkway is located adjacent to the south.

Potable Water Supply

The City of Santa Maria does not currently supply potable water to the subject property.

Sewage Disposal System

No sewage disposal system is located at the subject property.

Observations

Hazardous Substances and Petroleum Products in Connection with Identified Uses

No hazardous substances or petroleum products were identified at the subject property.

Storage Tanks

During the site reconnaissance, no above- or below-ground storage tanks or evidence of underground storage tanks were observed on the subject property.

Odors

During the site reconnaissance, Rincon did not identify any strong, pungent, or noxious odors.

Pools of Liquid

During the site reconnaissance, no pools of liquid were observed.

Drums

During the site reconnaissance, no drums were observed on the subject property.

Hazardous Substances and Petroleum Products Containers Not in Connection with Identified Uses

No hazardous substances or petroleum products not in connection with identified uses were observed at the subject property.

Unidentified Substance Containers

No unidentified substance containers or unidentified containers that might contain hazardous substances were observed during the site reconnaissance.

Indications of Polychlorinated Biphenyls (PCBs)

Rincon did not observe indications of PCBs on the subject property during the site reconnaissance.



Other Conditions of Concern

During the site reconnaissance, the following conditions of concern were noted:

Trash/Debris. During the site reconnaissance, miscellaneous trash and debris were observed throughout the subject area, including an area of concrete rubble located in the northeastern portion of the subject property. It is recommended that all trash and debris located on the subject property be removed.

Gas pipeline and markers. During the site reconnaissance, two metal pipes labeled, “Warning Gas Pipeline” were observed in the southwestern corner of the subject property. In addition, two gas pipeline markers were observed, one in the southwestern corner and one adjacent to the southeastern corner of the subject property. For the purpose of this Phase I ESA, we are interpreting the “gas” pipeline markers to be indicative of a natural gas pipeline. Pipes that appear to be vent pipes were also observed.

Culvert. A culvert was noted near the western terminus of Brookside Avenue.

Transient Camps. Transient camps were noted in the northeastern and southwestern corners of the subject property.

During the site reconnaissance, Rincon did not note any of the following:

- Clarifiers and sumps
- Degreasers/parts washers
- Pools of liquid
- Pits, ponds, and lagoons
- Stained soil or stained pavement
- Stressed vegetation
- Wastewater
- Wells
- Septic systems/effluent disposal system



Evaluation

Findings

Known or suspect RECs associated with the subject property include the following:

- Gas pipeline markers observed onsite and adjacent to the subject property

Opinions

- A. **Gas pipeline markers observed onsite and adjacent to the subject property.** During the site reconnaissance, gas pipeline markers were observed along the southern boundary of the subject property, as well as adjacent to the southeastern corner of the subject property. For the purpose of the Phase I ESA, the “gas” pipeline markers are interpreted to be indicative of a natural gas pipeline. Therefore, the natural gas pipeline markers are considered an *unknown environmental condition*.

Conclusions

Rincon has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13 for APN 107-321-013 in Santa Maria, California. Any exceptions to, or deletions from, this practice are described in the Deviations section of this report. This assessment has not revealed evidence of RECs associated with the subject property; however, the assessment has revealed evidence of one unknown environmental condition in connection with the subject property as follows:

Unknown Environmental Condition

1. Gas pipeline markers observed onsite and adjacent to the subject property

Recommendations

If Client wishes to further investigate the gas pipeline markers, Client may wish to conduct a soil vapor assessment at the subject property to determine whether the subject property has been impacted by the presence of the natural gas pipeline.

Deviations

Deviations from ASTM E1527-13 practice were not encountered during the completion of this Phase I ESA.

In addition, a lien search was not completed as part of this assessment; however, one was requested from the user.



References

The following reference materials were used in preparation of this Phase I ESA:

Aerial Photographs

Photos provided by LightBox on April 6, 2020.

Environmental Database

LightBox report dated April 6, 2020.

Geology

California Geologic Survey (CGS), *California Geomorphic Provinces Note 36*, December 2002.
Accessed April 2020;

USGS Geologic Map ([Santa Maria and Twitchell Dam Quadrangles, 1994](#)).

Groundwater

California Natural Resources Agency, California Department of Water Resources, *California Groundwater Bulletin 118*, 2003, <https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118>. Accessed April 2020;

Case Closure Summary, Righetti High School, 941 E Foster Road, Santa Maria, California prepared by the Santa Barbara County Fire Department and dated October 3, 2007.

Historical Topographic Maps

Maps provided by LightBox on April 6, 2020.

Oil and Gas Records

State of California Department of Conservation Geologic Energy Management Division (CalGEM, formerly DOGGR) website: <https://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx>. Accessed April 2020.

PFAS (Per- and Polyfluoroalkyl Substances)

California State Water Resources Control Board (SWRCB) online 2019 Statewide PFAS Investigation online Public Map Viewer: <https://www.waterboards.ca.gov/pfas/>. Accessed April 2020.

Pipelines

National Pipeline Mapping System (NPMS) Public Map Viewer:
<https://www.npms.phmsa.dot.gov/PublicViewer/>. Accessed April 2020.

Topography

USGS topographic map (Santa Maria Quadrangle, 2018).



Signatures of Environmental Professionals

The qualified environmental professionals that are responsible for preparing the report include Walt Hamann, Lisa Bestard, and Lauren Kodama Roenicke. Their qualifications are summarized in the following section.

“We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312. We have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.”

Signature

Walt Hamann, PG, CEG, CHG

Name

Date

Principal

Title

Signature

Lisa Bestard

Name

Date

Senior Environmental Scientist

Title

Signature

Lauren Kodama Roenicke

Name

Date

Project Manager

Title



Qualifications of Environmental Consultants

The environmental consultants responsible for conducting this Phase I ESA and preparing the report include Walt Hamann, Lisa Bestard, Lauren Kodama Roenicke, and Michelle Carter. Their qualifications are summarized below.

Environmental Professional Qualifications	X2.1.1 (2) (i) - Professional Engineer or Professional Geologist License or Registration, and 3 years of full-time relevant experience	X2.1.1 (2) (ii) - Licensed or certified by the Federal Government, State, Tribe, or U.S. Territory to perform environmental inquiries	X2.1.1 (2) (iii) – Baccalaureate or Higher Degree from and accredited institution of higher education in a discipline of engineering or science and the equivalent of 5 years of full-time relevant experience	X2.1.1 (2) (iii) – Equivalent of 10 years of full-time relevant experience
Walt Hamann	PG, CHG, CEG		MS Geology	30 years
Lisa Bestard			BA Biology	18 years
Lauren Kodama Roenicke			BS Environmental Studies	7 years
Michelle Carter			BS Earth Science	2 years

Walt Hamann, PG, CEG, CHG, is a Principal and Senior Geologist with Rincon Consultants. He holds a Bachelor of Arts degree in geology from the University of California, Santa Barbara and a Master of Science degree in geology from the University of California, Los Angeles. He has over 30 years of experience conducting assessment and remediation projects and has prepared or overseen the preparation of hundreds of Phase I and Phase II Environmental Site Assessments throughout California. Mr. Hamann is a Professional Geologist (#4742), Certified Engineering Geologist (#1635), and Certified Hydrogeologist (#208) with the State of California.

Lisa Bestard is a Senior Environmental Scientist with Rincon Consultants. She holds a Bachelor of Arts degree in biology from University of San Diego, San Diego, California. Ms. Bestard has extensive experience performing Due Diligence Phase I and Phase II Environmental Site Assessments and various remediation projects and providing soil and waste management services. She has 18 years of experience conducting research, assessment, and remediation projects in California. Ms. Bestard’s responsibilities at Rincon include implementation of site assessments and development of site remediation programs within the Environmental Site Assessment and Remediation Group.

Lauren G. Kodama Roenicke is a Project Manager with Rincon Consultants. She holds a Bachelor of Science degree in Environmental Studies with an outside concentration of Ecology, Evolution, and Marine Biology from the University of California, Santa Barbara. Ms. Roenicke has experience working on Phase I Environmental Site Assessments for a variety of commercial, rural, and industrial properties. In addition, Ms. Roenicke has been involved in working on large scale, multi-site projects for developers, banks, regulatory agencies, and other public and private Clients. Ms. Roenicke’s

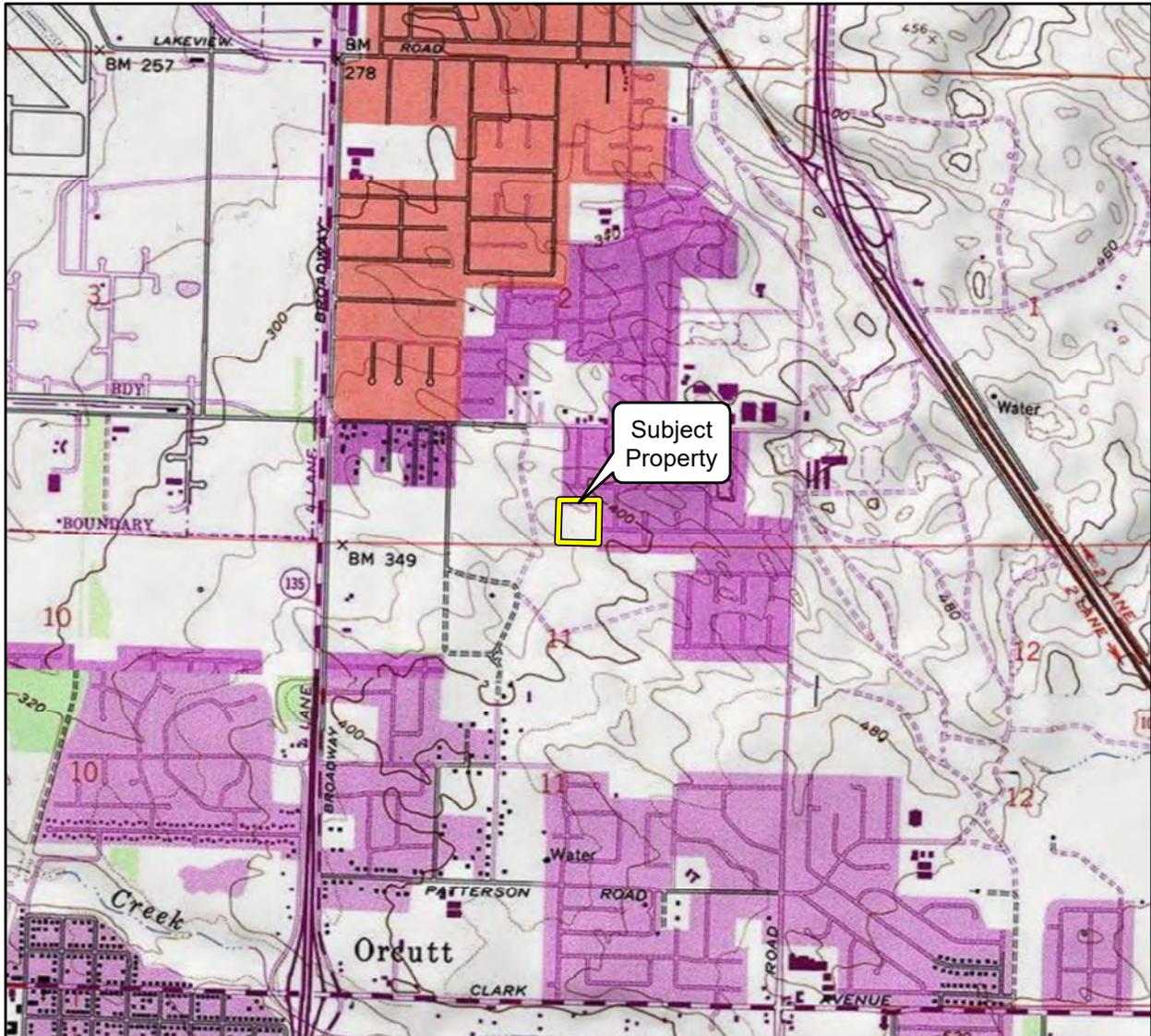


responsibilities at Rincon include implementation of Phase I and Phase II Environmental Site Assessment Reports, which involve soil, groundwater, and soil vapor assessments.

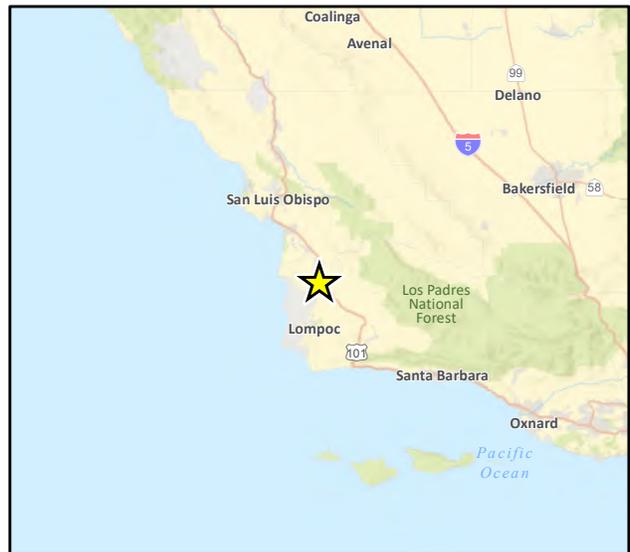
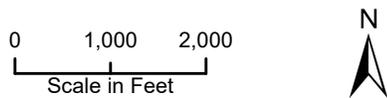
Michelle Carter is an Associate Environmental Scientist with Rincon Consultants. She holds a Bachelor of Science degree in Earth Science with an emphasis in Geology from the University of California, Santa Barbara. Ms. Carter's responsibilities at Rincon include implementation of Phase I Environmental Site Assessment reports for a variety of commercial, rural, and industrial properties. She also has experience with Phase II Environmental Site Assessments, which involve soil, groundwater, and soil vapor assessments.



Figures



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Vicinity Map

Figure 1



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Site Map

Figure 2



Imagery provided by Microsoft Bing and its licensors © 2020.

Adjacent Land Use Map

Figure 3

Rincon Consultants, Inc.





Photograph 1. View of the subject property, facing west.



Photograph 2. View of a culvert that drains onto the subject property located along the eastern boundary, facing east.



Photograph 3. View of a water meter located along the eastern boundary of the subject property.



Photograph 4. View of concrete debris located in the northeastern corner of the subject property.



Photograph 5. View of a transient encampment located in the eucalyptus grove on the subject property, facing south.



Photograph 6. View of two vent pipes located in the southwestern corner of the subject property.



Brookside Avenue, APN 107-321-013, Santa Maria, California
Phase I Environmental Site Assessment



Photograph 7. View of a gas pipeline marker located along the southern boundary of the subject property, facing west.



Photograph 8. View of concrete debris located in the southwestern corner of the subject property, facing northeast.



Photograph 9. View of the southern adjacent Union Valley Parkway, facing south.



Photograph 10. View of the eastern adjacent Brookside Avenue and single-family residences, facing east.



Photograph 11. View of the northern adjacent single-family residences, facing northwest.



Photograph 12. View of the western adjacent vacant, undeveloped land, facing west.



Attachment F

Phase II Environmental Site Assessment



Rincon Consultants, Inc.

209 East Victoria Street
Santa Barbara, California 93101

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www.rinconconsultants.com

July 22, 2021

Project No.: 20-09360

Susan Freebourn

County of Santa Barbara

General Services Department

1105 Santa Barbara Street, Second Floor

Santa Barbara, California 93101

Via email: sfreebourn@countyofsb.org

**Subject: Phase II Environmental Site Assessment
Assessor's Parcel Number (APN) 107-321-013
Santa Maria, California**

Dear Ms. Freebourn:

Rincon Consultants, Inc. (Rincon) is pleased to submit this letter report summarizing the results of a Phase II Environmental Site Assessment (ESA) conducted at the 4.6-acre parcel identified as APN 107-321-013 located at the western terminus of Brookside Avenue in Santa Maria, California (site – Figure 1). The Phase II ESA was conducted for the County of Santa Barbara and comprised a soil vapor assessment to evaluate the site for potential impacts from the adjacent gas pipeline markers identified in the draft Phase I ESA prepared for the site by Rincon, dated April 22, 2020.

Objectives and Scope of Work

The Phase II ESA was conducted to determine if soil vapor at the site has been impacted by the adjacent gas pipeline running east-west along Union Valley Parkway (Figure 2).

The Phase II ESA performed at the site included the following scope of work, consistent with Rincon's proposal dated August 25, 2020:

- Boring mark-outs and Underground Service Alert notification
- Preparation of a site-specific Health and Safety Plan
- Advancement of four borings to depths of up to five feet below ground surface (bgs)
- Collection of soil vapor samples from the four boring locations
- Analysis of soil vapor samples for volatile organic compounds (VOCs), total petroleum hydrocarbons as gasoline (TPHg), and methane
- Evaluation of laboratory analytical results and comparison of analyte concentrations to applicable environmental and human health screening levels



Soil Vapor Sampling and Laboratory Analytical Methods

On July 12, 2021, Rincon oversaw the advancement of four borings and the collection of four soil vapor samples at the site (SV-1 through SV-4) by Optimal Technology (Optimal) (Figure 2). The borings were advanced to a depth of five feet bgs along the southern site boundary. These locations were chosen based on their proximity to the adjacent gas pipeline.

Soil vapor sampling was performed in accordance with the California Department of Toxic Substances Control's July 2015 Advisory for Active Soil Gas Investigations¹. The sampling methodology is described in detail in the attached report from Optimal dated June 13, 2021 (Attachment 1).

Soil vapor samples were analyzed onsite by Optimal's mobile analytical laboratory for VOCs and TPHg by United States Environmental Protection Agency (EPA) Modified Method 8260B, and methane by EPA Modified Method 8015.

Soil Vapor Analytical Results

Soil vapor analytical results were compared to San Francisco Bay Regional Water Quality Control Board (SFB RWQCB) Environmental Screening Levels (ESLs) (SFB RWQCB 2019)² for soil gas for both residential and commercial/industrial land use because the proposed site development is a fire station, and fire fighters typically spend several days in a row at the station. The laboratory analytical report for soil vapor samples is included as Attachment 1.

VOCs, TPHg, and methane were not detected above laboratory reporting limits in the soil vapor samples analyzed. In addition, Rincon confirmed that the laboratory reporting limits for each constituent are below the commercial/industrial ESLs, and are also below the more conservative (i.e., more protective) residential ESLs.

Conclusions and Recommendations

VOCs, TPHg, and methane were not detected above laboratory reporting limits in the soil vapor samples analyzed, and therefore the soil vapor results indicate that the site has not been impacted by the adjacent pipeline. No additional site assessment activities are recommended.

Limitations

This report has been prepared for and is intended for the exclusive use of the County of Santa Barbara. The contents of this report should not be relied upon by any other party without the written consent of Rincon. Our conclusions regarding the site are based on observations of existing site conditions and the results of the subsurface sampling program described in this report. The results of this evaluation are qualified by the fact that only limited sampling and analytical testing was conducted during this assessment.

¹ Department of Toxic Substances Control. 2015. *Advisory—Active Soil Gas Investigations*. July 2015.

² San Francisco Bay Regional Water Quality Control Board. 2019. Environmental Screening Levels (ESLs). July 2019.



This scope was not intended to completely establish the quantities and distribution of contaminants present at the site. The concentrations of contaminants measured at any given location may not be representative of conditions at other locations. Furthermore, conditions may change at any particular location as a function of time in response to natural conditions, chemical reactions, and other events. Conclusions regarding the condition of the site do not represent a warranty that all areas within the site are similar to those sampled.

We appreciate the opportunity to support you on this project. Please contact us with any questions or concerns.

Sincerely,

Rincon Consultants, Inc.

A handwritten signature in blue ink that reads "Lauren Kodama Roenicke".

Lauren Kodama Roenicke
Project Manager, Due Diligence

A handwritten signature in black ink that reads "Ryan Thacher".

Ryan Thacher, PhD, PE
Director, Site Assessment and Remediation

A handwritten signature in blue ink that reads "Lisa Bestard".

Lisa Bestard
Senior Environmental Scientist

Figures

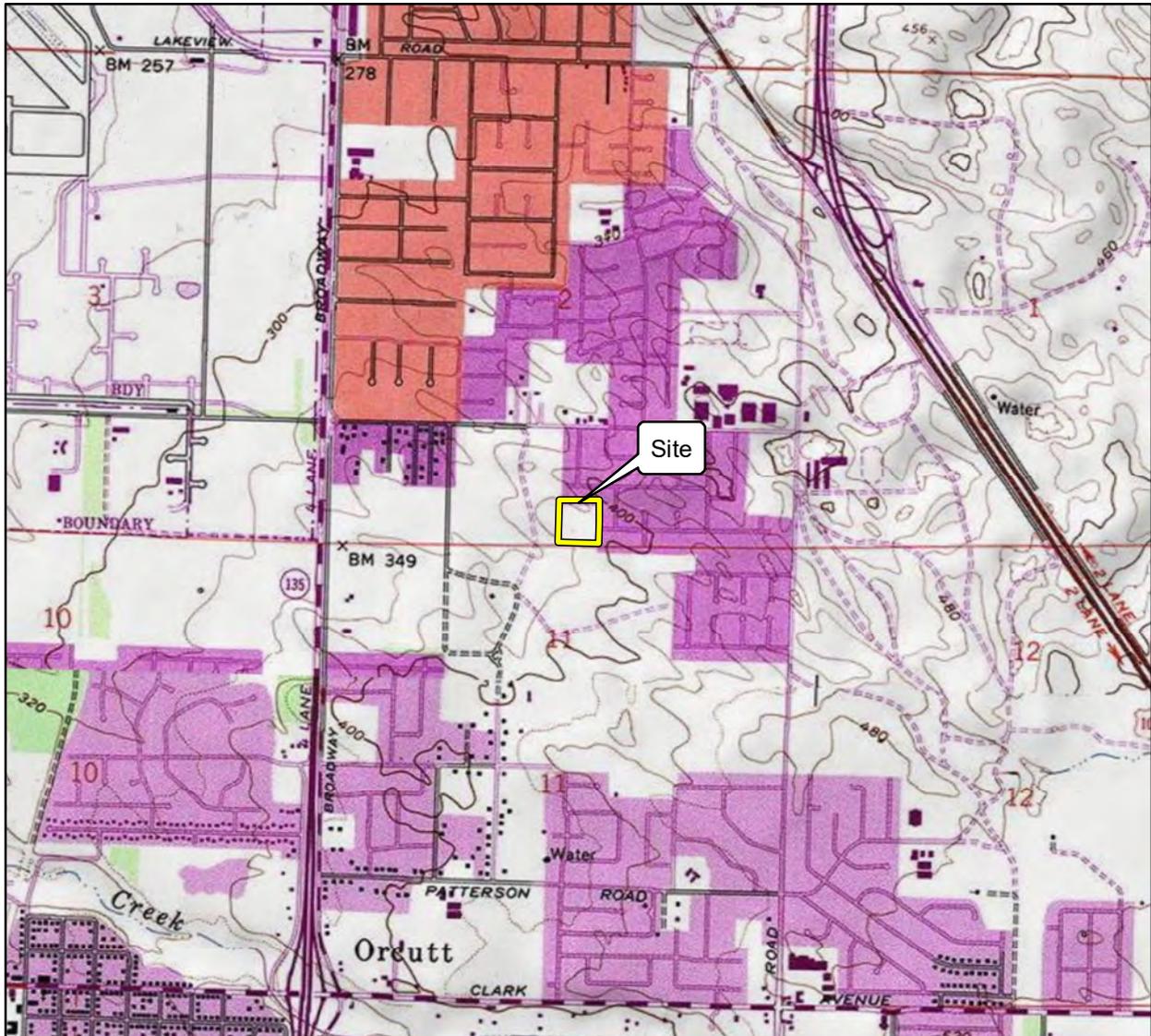
Figure 1 Vicinity

Figure 2 Boring Locations

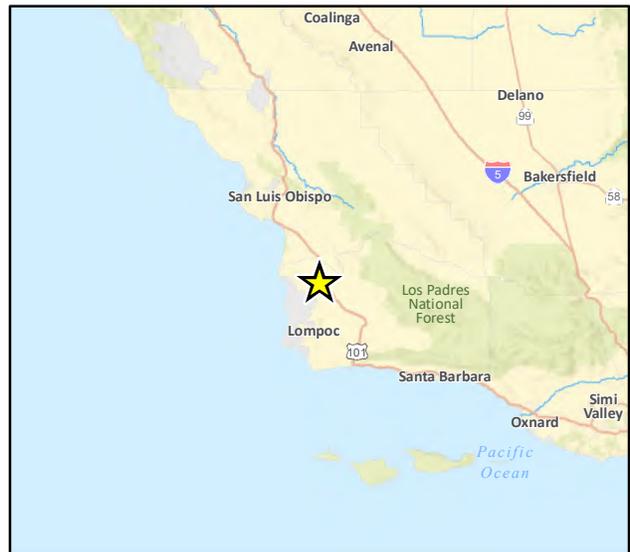
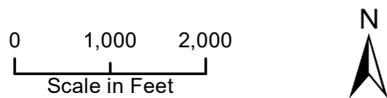
Attachments

Attachment 1 Soil Vapor Sampling and Laboratory Analytical Report (Optimal 2021)

Figures

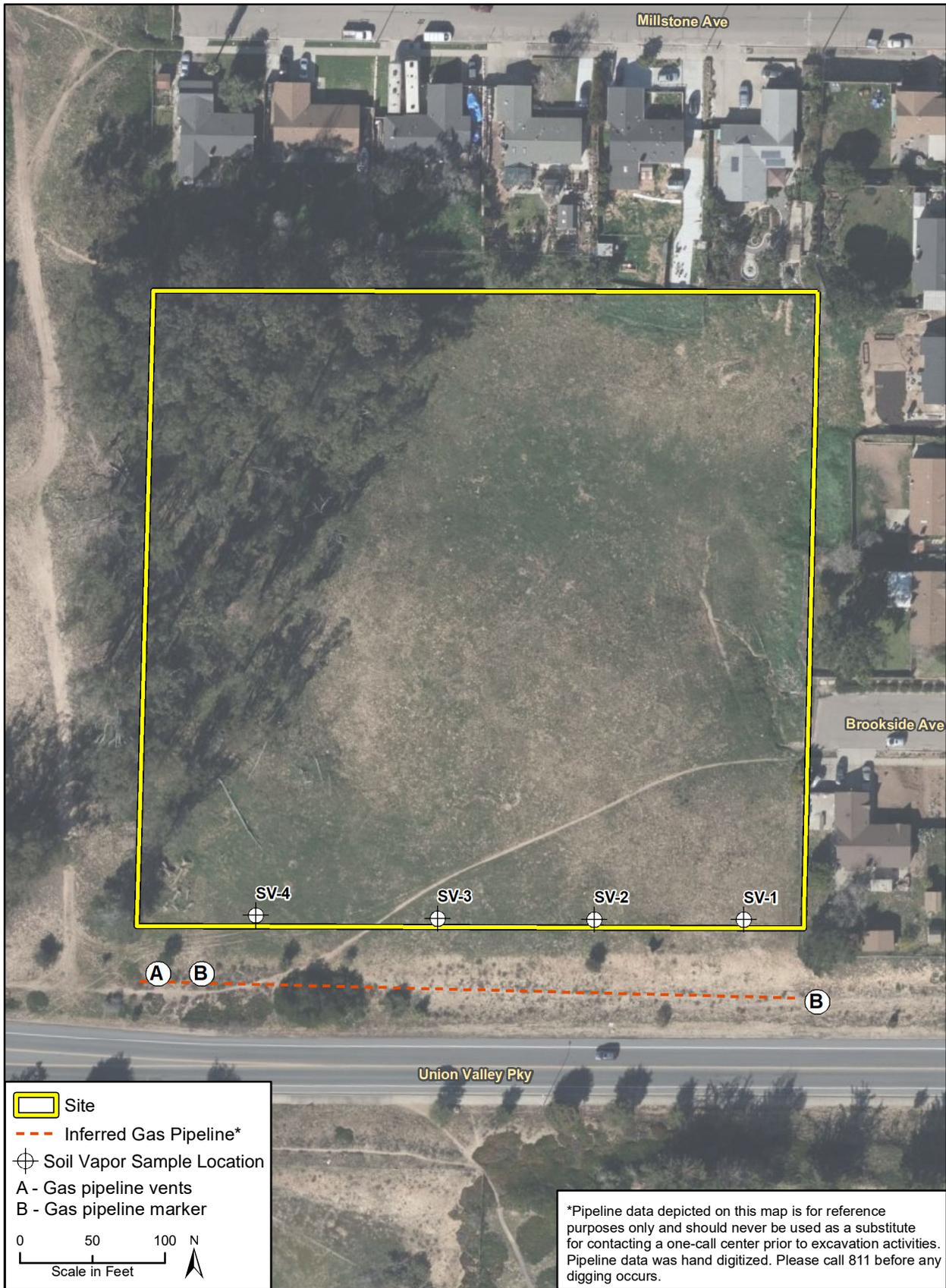


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Vicinity

Figure 1



Imagery provided by Microsoft Bing and its licensors © 2021.

Boring Locations

Figure 2

Attachment 1

Soil Vapor Sampling and Laboratory Analytical Report (Optimal 2021)



July 13, 2021

Lauren Kodama Roenicke
Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, CA 93003

Dear Lauren:

This letter presents the results of the soil vapor investigation conducted by Optimal Technology (Optimal), for Rincon Consultants, Inc. on July 12, 2021. The study was performed at the West End of Brookside Ave., Orcutt, California.

Optimal was contracted to perform a soil vapor survey at this site to screen for possible chlorinated solvents and aromatic hydrocarbons. The primary objective of this soil vapor investigation was to determine if soil vapor contamination is present in the subsurface soil.

Gas Sampling Method

Gas sampling was performed by hydraulically pushing soil gas probes to a depth of 5.0 feet below ground surface (bgs). An electric rotary hammer drill was used to drill a 1.0-inch diameter hole through the overlying surface to allow probe placement when required. The same electric hammer drill was used to push probes in areas of resistance during placement.

At each sampling location, an electric vacuum pump set to draw 0.2 liters per minute (L/min) of soil vapor was attached to the probe and purged prior to sample collection. Vapor samples were obtained in gas-tight syringes by drawing the sample through a luer-lock connection which connects the sampling probe and the vacuum pump. Samples were immediately injected into the gas chromatograph/purge and trap after collection. New tubing was used at each sampling point to prevent cross contamination.

All analyses were performed on a laboratory grade Agilent model 6890N gas chromatograph equipped with an Agilent model 5973N Mass Spectra Detector, Flame Ionization Detector (FID) and Tekmar LSC 3100 Purge and Trap. A Restek column using helium/nitrogen as the carrier gas was used to perform all analysis. All results were collected on a personal computer utilizing Agilent's MS and chromatographic data collection and handling system.

Quality Assurance

5-Point Calibration

The initial five-point calibration consisted of 20, 50, 100, 200 and 500 ul injections of the calibration standard. A calibration factor on each analyte was generated using a best fit line method using the Agilent data system. If the r^2 factor generated from this line was not greater than 0.990, an additional five-point calibration would have been performed. Method reporting limits were calculated to be 1-1000 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for the individual compounds and 5.0 parts per million by volume (ppmV) for Methane.

A daily calibration check was performed using a pre-mixed standard supplied by Scotty Analyzed Gases. The standard contained common halogenated solvents and aromatic hydrocarbons (see Table 1). The individual compound concentrations in the standards ranged between 0.025 nanograms per microliter ($\text{ng}/\mu\text{l}$) and 0.25 $\text{ng}/\mu\text{l}$.

TABLE 1

Dichlorodifluoromethane	Carbon Tetrachloride	Chloroethane
Trichlorofluoromethane	1,2-Dichloroethane	Benzene
1,1-Dichloroethene	Trichloroethene	Toluene
Methylene Chloride	1,1,2-Trichloroethane	Ethylbenzene
trans-1,2-Dichloroethene	Tetrachloroethene	m-/p-Xylene
1,1-Dichloroethane	Chloroform	o-Xylene
cis-1,2-Dichloroethene	1,1,1,2-Tetrachloroethane	Vinyl Chloride
1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	Freon 113
4-Methyl-2-Pentanone	Cyclohexane	Acetone
Chlorobenzene	2-Butanone	Isobutane
Methane		

Sample Replicates

A replicate analysis (duplicate) was run to evaluate the reproducibility of the sampling system and instrument. The difference between samples did not vary more than 20%.

Equipment Blanks

Blanks were run at the beginning of each workday and after calibrations. The blanks were collected using an ambient air sample. These blanks checked the septum, syringe, GC column, GC detector and the ambient air. Contamination was not found in any of the blanks analyzed during this investigation. Blank results are given along with the sample results.

Tracer Gas Leak Test

A tracer gas was applied to the soil gas probes at each point of connection in which ambient air could enter the sampling system. These points include the top of the sampling probe where the tubing meets the probe connection and the surface bentonite seals. Isobutane was used as the tracer gas. No Isobutane was found in any of the samples collected.

Purge Volume

The standard purge volume of three volumes was purged in accordance with the July 2015 DTSC/RWQCB Advisory for Active Soil Gas Investigations.

Shut-in Test

A shut-in test was conducted prior to purging or sampling each location to check for leaks in the above-ground sampling system. The system was evaluated to a minimum measured vacuum of 100 inches of water. The vacuum gauge was calibrated and sensitive enough to indicate a water pressure change of at least 0.5 inches.

Scope of Work

To achieve the objective of this investigation a total of 10 vapor samples were collected from 4 locations at the site. Sampling depths, vacuum readings, purge volume and sampling volumes are given on the analytical results page. All the collected vapor samples were analyzed on-site using Optimal's mobile laboratory.

Subsurface Conditions

Subsurface soil conditions at this site offered sampling flows at 0" water vacuum.

Results

During this vapor investigation, none of the compounds listed in Table 1 above were detected above the listed reporting limits. A complete table of analytical results is included with this report.

Disclaimer

All conclusions presented in this letter are based solely on the information collected by the soil vapor survey conducted by Optimal Technology. Soil vapor testing is only a subsurface screening tool and does not represent actual contaminant concentrations in either the soil and/or groundwater. We enjoyed working with you on this project and look forward to future projects. If you have any questions, please contact me at (877) 764-5427.

Sincerely,



Attila Baly
Project Manager



SOIL VAPOR RESULTS

Site Name: West End of Brookside Ave., Orcutt, CA

Lab Name: Optimal Technology

Date: 7/12/21

Analyst: A. Baly **Collector:** A. Baly

Inst. ID: Agilent 6890NF

Method: Modified EPA 8015

Detector: FID

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SAMPLE ID
Sampling Depth (Ft.)
Purge Volume (ml)
Vacuum (in. of Water)
Injection Volume (ul)
Dilution Factor

BLANK-1	SV-1	SV-2	SV-3	SV-4	SV-4 Dup		
N/A	5.0	5.0	5.0	5.0	5.0		
N/A	1,500	1,500	1,500	1,500	1,500		
N/A	0	0	0	0	0		
5,000	5,000	5,000	5,000	5,000	5,000		
1	1	1	1	1	1		

COMPOUND	REP. LIMIT
Methane	5.0
Isobutane (Tracer Gas)	1.0

CONC (ppmV)							
ND	ND	ND	ND	ND	ND		
ND	ND	ND	ND	ND	ND		

Note: ND = Below Listed Reporting Limit

Attachment G

Noise Calculations

NM1

Freq Weight : A
 Time Weight : SLOW
 Level Range : 40-100
 Max dB : 63.5 - 2021/08/05 12:11:02
 Level Range : 40-100
 SEL : 78.5
 Leq : 49.0

No.s	Date Time	(dB)					
1	2021/08/05 12:09:11	50.7	50.8	51.6	49.4	47.7	
6	2021/08/05 12:09:26	46.8	46.5	45.7	46.3	46.9	
11	2021/08/05 12:09:41	46.9	46.4	46.6	46.9	47.5	
16	2021/08/05 12:09:56	47.2	47.4	46.7	45.8	45.5	
21	2021/08/05 12:10:11	45.1	45.5	45.3	45.5	45.8	
26	2021/08/05 12:10:26	46.3	47.0	47.7	48.2	48.1	
31	2021/08/05 12:10:41	48.3	48.8	49.1	54.8	60.4	
36	2021/08/05 12:10:56	58.8	62.3	63.2	60.6	59.6	
41	2021/08/05 12:11:11	55.0	52.5	49.1	48.7	46.7	
46	2021/08/05 12:11:26	46.5	46.3	46.5	46.3	46.4	
51	2021/08/05 12:11:41	46.4	46.1	45.4	45.5	45.7	
56	2021/08/05 12:11:56	45.5	45.7	46.2	47.0	47.3	
61	2021/08/05 12:12:11	46.7	46.6	46.3	46.1	46.4	
66	2021/08/05 12:12:26	47.0	47.9	47.7	48.4	49.5	
71	2021/08/05 12:12:41	50.0	50.6	50.4	49.5	47.9	
76	2021/08/05 12:12:56	46.1	44.9	44.8	45.1	45.4	
81	2021/08/05 12:13:11	45.6	45.8	46.9	46.6	46.0	
86	2021/08/05 12:13:26	45.5	44.5	44.1	45.1	46.7	
91	2021/08/05 12:13:41	47.1	47.6	47.3	47.7	47.5	
96	2021/08/05 12:13:56	48.0	48.2	50.7	49.4	48.3	
101	2021/08/05 12:14:11	46.7	46.9	45.9	45.5	45.1	
106	2021/08/05 12:14:26	46.3	45.7	44.9	45.8	46.9	
111	2021/08/05 12:14:41	47.2	51.1	49.0	47.0	47.7	
116	2021/08/05 12:14:56	46.5	44.7	44.5	44.7	45.3	
121	2021/08/05 12:15:11	45.8	46.8	46.0	45.9	46.9	
126	2021/08/05 12:15:26	45.9	45.5	46.2	46.8	49.2	
131	2021/08/05 12:15:41	48.3	50.0	52.4	51.2	50.3	
136	2021/08/05 12:15:56	47.8	47.3	46.4	45.7	45.4	
141	2021/08/05 12:16:11	46.6	47.7	46.5	45.7	46.4	
146	2021/08/05 12:16:26	46.2	46.7	46.4	46.3	47.3	
151	2021/08/05 12:16:41	46.9	47.0	47.7	48.5	48.4	
156	2021/08/05 12:16:56	47.7	47.8	48.3	47.8	48.0	
161	2021/08/05 12:17:11	47.6	46.9	46.4	45.5	46.6	
166	2021/08/05 12:17:26	47.3	47.4	46.5	48.3	47.9	
171	2021/08/05 12:17:41	47.0	47.7	48.3	48.0	48.6	
176	2021/08/05 12:17:56	50.2	50.2	47.4	47.5	47.9	
181	2021/08/05 12:18:11	48.0	47.7	47.2	47.5	48.3	
186	2021/08/05 12:18:26	48.9	48.4	48.6	47.3	47.2	
191	2021/08/05 12:18:41	46.6	44.9	45.1	45.2	47.4	
196	2021/08/05 12:18:56	47.0	48.2	47.5	46.9	46.8	
201	2021/08/05 12:19:11	47.3	47.6	47.7	48.4	49.0	
206	2021/08/05 12:19:26	51.5	53.7	51.6	48.6	48.3	
211	2021/08/05 12:19:41	48.6	47.3	46.7	46.2	46.1	
216	2021/08/05 12:19:56	46.8	47.4	47.6	47.5	46.8	
221	2021/08/05 12:20:11	46.3	46.1	45.9	46.6	46.4	
226	2021/08/05 12:20:26	46.5	46.6	46.6	45.8	45.1	
231	2021/08/05 12:20:41	44.8	45.2	45.2	45.1	45.0	
236	2021/08/05 12:20:56	44.4	44.6	46.3	46.8	47.7	
241	2021/08/05 12:21:11	48.2	47.9	48.0	47.7	47.9	
246	2021/08/05 12:21:26	47.5	48.1	47.1	46.9	47.1	
251	2021/08/05 12:21:41	46.0	46.5	46.4	47.4	47.0	
256	2021/08/05 12:21:56	47.7	48.1	47.6	47.5	47.7	
261	2021/08/05 12:22:11	47.1	47.1	46.6	46.7	46.2	
266	2021/08/05 12:22:26	45.8	45.6	45.4	45.5	44.8	
271	2021/08/05 12:22:41	44.7	44.8	45.2	44.6	45.3	
276	2021/08/05 12:22:56	45.7	45.8	46.5	47.1	47.4	
281	2021/08/05 12:23:11	46.9	46.9	46.8	46.1	46.0	
286	2021/08/05 12:23:26	47.1	47.0	47.2	47.9	49.0	
291	2021/08/05 12:23:41	49.3	49.0	47.8	48.0	48.5	
296	2021/08/05 12:23:56	48.4	47.4	47.9	48.3	49.4	

NM2

Freq Weight : A
 Time Weight : SLOW
 Level Range : 40-100
 Max dB : 77.9 - 2021/08/05 12:34:03
 Level Range : 40-100
 SEL : 96.5
 Leq : 67.0

No.s	Date Time	(dB)					
1	2021/08/05 12:30:08	57.5	73.6	66.9	63.0	65.0	
6	2021/08/05 12:30:23	58.8	62.7	67.6	71.7	65.4	
11	2021/08/05 12:30:38	65.7	76.7	72.5	66.9	62.9	
16	2021/08/05 12:30:53	62.6	64.7	60.1	68.0	60.6	
21	2021/08/05 12:31:08	54.9	65.1	65.0	58.6	66.5	
26	2021/08/05 12:31:23	57.9	65.5	67.8	72.5	70.1	
31	2021/08/05 12:31:38	61.8	56.9	59.3	73.1	74.8	
36	2021/08/05 12:31:53	69.3	66.0	62.0	66.3	67.9	
41	2021/08/05 12:32:08	69.2	70.0	69.6	61.5	59.6	
46	2021/08/05 12:32:23	65.7	58.7	53.1	51.2	58.5	
51	2021/08/05 12:32:38	63.7	70.2	71.6	70.3	68.8	
56	2021/08/05 12:32:53	65.7	63.9	61.4	65.0	66.5	
61	2021/08/05 12:33:08	64.6	67.1	61.6	52.9	48.5	
66	2021/08/05 12:33:23	48.9	49.8	51.2	52.3	54.1	
71	2021/08/05 12:33:38	56.4	62.8	72.8	70.5	67.6	
76	2021/08/05 12:33:53	66.2	67.1	76.5	74.0	69.7	
81	2021/08/05 12:34:08	72.1	71.6	69.0	64.4	69.7	
86	2021/08/05 12:34:23	67.9	70.8	71.7	69.0	66.3	
91	2021/08/05 12:34:38	57.8	56.6	63.1	64.7	62.1	
96	2021/08/05 12:34:53	54.1	55.2	50.9	53.2	54.8	
101	2021/08/05 12:35:08	67.4	61.1	62.5	62.0	64.5	
106	2021/08/05 12:35:23	68.1	70.8	62.8	64.0	56.4	
111	2021/08/05 12:35:38	63.6	62.5	56.4	53.1	63.2	
116	2021/08/05 12:35:53	65.2	65.7	63.7	66.5	65.6	
121	2021/08/05 12:36:08	65.0	57.1	51.4	49.6	51.1	
126	2021/08/05 12:36:23	67.5	61.6	61.8	65.5	55.6	
131	2021/08/05 12:36:38	52.0	61.4	63.9	66.6	66.0	
136	2021/08/05 12:36:53	69.9	71.5	74.0	68.6	66.4	
141	2021/08/05 12:37:08	69.4	61.1	57.2	58.6	66.2	
146	2021/08/05 12:37:23	70.5	71.1	66.0	59.4	64.0	
151	2021/08/05 12:37:38	62.6	56.9	56.2	54.6	57.7	
156	2021/08/05 12:37:53	66.9	69.2	65.9	66.8	67.7	
161	2021/08/05 12:38:08	70.4	70.3	67.3	67.7	63.0	
166	2021/08/05 12:38:23	58.1	63.3	58.8	72.4	66.1	
171	2021/08/05 12:38:38	60.9	57.8	56.5	56.3	64.4	
176	2021/08/05 12:38:53	67.6	69.6	69.4	63.8	61.9	
181	2021/08/05 12:39:08	69.0	69.0	68.7	68.6	59.6	
186	2021/08/05 12:39:23	52.7	48.7	60.5	57.9	53.7	
191	2021/08/05 12:39:38	66.5	68.8	63.2	75.6	71.1	
196	2021/08/05 12:39:53	71.1	69.4	66.3	64.6	59.3	
201	2021/08/05 12:40:08	55.1	57.4	58.6	69.2	67.8	
206	2021/08/05 12:40:23	62.7	67.6	67.6	68.5	60.8	
211	2021/08/05 12:40:38	60.1	63.3	77.3	73.7	66.0	
216	2021/08/05 12:40:53	67.5	69.8	69.6	66.2	65.2	
221	2021/08/05 12:41:08	70.4	69.5	66.0	64.6	66.8	
226	2021/08/05 12:41:23	60.6	55.5	63.8	62.1	63.2	
231	2021/08/05 12:41:38	55.2	52.7	55.3	50.9	51.0	
236	2021/08/05 12:41:53	51.6	53.3	64.1	62.0	61.9	
241	2021/08/05 12:42:08	69.7	70.1	73.4	69.3	75.6	
246	2021/08/05 12:42:23	72.5	69.9	70.8	72.2	67.5	
251	2021/08/05 12:42:38	68.3	66.6	59.3	58.3	65.8	
256	2021/08/05 12:42:53	69.1	59.6	53.0	49.4	47.3	
261	2021/08/05 12:43:08	48.4	49.1	64.3	59.3	52.0	
266	2021/08/05 12:43:23	50.5	49.3	51.5	57.6	52.5	
271	2021/08/05 12:43:38	52.1	53.9	53.1	54.2	56.0	
276	2021/08/05 12:43:53	66.3	70.4	69.1	64.2	64.6	
281	2021/08/05 12:44:08	65.4	67.2	65.9	67.2	59.6	
286	2021/08/05 12:44:23	54.5	54.8	57.2	56.1	55.2	
291	2021/08/05 12:44:38	55.9	54.4	67.2	69.4	66.8	
296	2021/08/05 12:44:53	66.1	65.0	66.4	65.0	57.4	

NM3 - Long-term 24hr

Freq Weight : A
 Time Weight : SLOW
 Level Range : 40-100
 Max dB : 76.1 - 2021/08/05 15:30:10
 Level Range : 40-100
 SEL : 119.3
 Leq : 70.0

No.s	Date Time	(dB)				
1	2021/08/05 12:59:49	49.0	50.6	50.9	45.4	47.2
6	2021/08/05 13:19:49	43.6	45.9	45.6	51.2	44.4
11	2021/08/05 13:39:49	50.3	50.0	46.8	45.3	47.0
16	2021/08/05 13:59:49	51.1	48.0	49.6	48.1	48.3
21	2021/08/05 14:19:49	50.9	49.6	49.3	49.2	51.2
26	2021/08/05 14:39:49	48.7	49.2	51.2	51.6	51.7
31	2021/08/05 14:59:49	48.7	49.7	49.1	50.2	49.7
36	2021/08/05 15:19:49	50.7	50.6	51.3	50.0	51.8
41	2021/08/05 15:39:49	49.7	50.4	49.5	49.1	49.2
46	2021/08/05 15:59:49	50.1	49.7	49.3	51.0	51.1
51	2021/08/05 16:19:49	51.4	50.6	48.3	52.2	50.6
56	2021/08/05 16:39:49	50.1	50.2	48.8	52.5	53.1
61	2021/08/05 16:59:49	49.0	49.0	49.3	47.9	61.9
66	2021/08/05 17:19:49	47.3	50.3	51.5	50.1	50.5
71	2021/08/05 17:39:49	52.8	49.0	50.1	49.6	47.1
76	2021/08/05 17:59:49	50.9	49.3	46.5	47.8	47.6
81	2021/08/05 18:19:49	49.7	46.5	46.8	47.7	46.1
86	2021/08/05 18:39:49	46.7	46.6	49.4	43.8	47.4
91	2021/08/05 18:59:49	46.6	44.3	49.6	51.1	45.6
96	2021/08/05 19:19:49	46.6	45.9	45.9	42.0	46.8
101	2021/08/05 19:39:49	43.3	51.2	45.3	43.8	46.6
106	2021/08/05 19:59:49	45.8	44.3	45.8	45.6	42.1
111	2021/08/05 20:19:49	43.1	41.6	41.9	41.9	42.7
116	2021/08/05 20:39:49	48.6	50.7	47.7	41.3	42.1
121	2021/08/05 20:59:49	44.8	49.5	45.1	47.5	45.9
126	2021/08/05 21:19:49	42.3	41.0	42.0	42.7	44.0
131	2021/08/05 21:39:49	45.1	46.4	39.4	42.3	42.9
136	2021/08/05 21:59:49	43.7	50.9	42.3	39.1	41.5
141	2021/08/05 22:19:49	45.6	41.8	38.6	37.2	40.5
146	2021/08/05 22:39:49	39.0	42.7	35.4	38.5	37.7
151	2021/08/05 22:59:49	39.5	36.2	41.0	35.5	37.4
156	2021/08/05 23:19:49	33.5	39.4	38.7	36.5	40.9
161	2021/08/05 23:39:49	36.5	42.1	33.9	31.6	37.2
166	2021/08/05 23:59:49	39.6	32.7	33.6	33.0	36.2
171	2021/08/06 00:19:49	35.1	31.9	32.1	43.5	41.7
176	2021/08/06 00:39:49	31.4	31.1	36.9	30.7	34.6
181	2021/08/06 00:59:49	32.1	35.3	31.3	30.8	30.5
186	2021/08/06 01:19:49	30.7	34.0	30.1	31.3	33.1
191	2021/08/06 01:39:49	31.2	31.9	31.1	30.1	31.6
196	2021/08/06 01:59:49	31.3	30.2	30.7	34.0	32.1
201	2021/08/06 02:19:49	34.2	39.4	38.1	46.7	31.1
206	2021/08/06 02:39:49	30.4	30.6	30.8	30.7	30.0
211	2021/08/06 02:59:49	30.4	31.1	32.3	31.2	37.5
216	2021/08/06 03:19:49	30.9	31.1	31.4	32.0	32.0
221	2021/08/06 03:39:49	40.7	39.3	35.0	31.0	32.7
226	2021/08/06 03:59:49	37.1	33.3	34.1	34.5	33.2
231	2021/08/06 04:19:49	31.6	32.5	34.6	40.0	36.7
236	2021/08/06 04:39:49	37.5	40.1	39.0	43.7	42.3
241	2021/08/06 04:59:49	41.3	36.1	35.5	41.1	40.5
246	2021/08/06 05:19:49	40.1	45.1	40.5	46.4	41.6
251	2021/08/06 05:39:49	40.1	43.1	43.2	40.9	45.8
256	2021/08/06 05:59:49	52.5	45.8	39.1	42.6	48.6
261	2021/08/06 06:19:49	43.6	49.1	47.2	48.3	45.7
266	2021/08/06 06:39:49	44.7	45.3	46.5	47.1	48.6
271	2021/08/06 06:59:49	49.2	47.8	42.2	46.5	50.0
276	2021/08/06 07:19:49	49.3	42.5	47.5	44.8	46.6
281	2021/08/06 07:39:49	45.9	47.8	49.2	49.2	48.3
286	2021/08/06 07:59:49	46.6	51.0	46.5	48.6	45.6
291	2021/08/06 08:19:49	45.0	44.4	44.1	43.8	46.3
296	2021/08/06 08:39:49	49.0	46.5	44.8	46.3	44.0
301	2021/08/06 08:59:49	44.1	45.6	44.8	42.4	42.8
306	2021/08/06 09:19:49	47.0	42.7	47.8	50.8	44.1
311	2021/08/06 09:39:49	44.7	42.6	46.0	48.4	43.8
316	2021/08/06 09:59:49	40.2	42.2	45.1	43.1	39.8
321	2021/08/06 10:19:49	47.7	48.4	45.5	48.8	46.1
326	2021/08/06 10:39:49	46.9	46.4	42.5	47.6	44.6
331	2021/08/06 10:59:49	45.1	46.0	41.6	46.6	44.3
336	2021/08/06 11:19:49	44.4	44.3	47.5	45.0	45.2
341	2021/08/06 11:39:49	45.5	43.9	42.2	47.1	49.2
346	2021/08/06 11:59:49	49.4	50.9	43.7	45.4	46.2
351	2021/08/06 12:19:49	45.7	46.5	49.2	47.0	49.4
356	2021/08/06 12:39:49	45.1	47.8	45.3	46.2	46.3

Public Review Period Comment Letter and Response

The public review and comment period on the Draft Initial Study-Mitigated Negative Declaration (IS-MND) for the Brookside Avenue Fire Station (project) was between October 4 and November 5, 2021. Copies of the Draft IS-MND were distributed to interested state agencies by the Governor's Office of Planning and Research – State Clearinghouse. Notices that the Draft IS-MND was available for review were published in the Santa Maria Times, and the Draft IS-MND was available for review on the Santa Barbara County Fire Department's website.

Comments on the Draft IS-MND were provided by one individual:

- Chris Hinds, November 4, 2021

A copy of the comment letter and a response is provided herein to the one comment received on the adequacy of the environmental impact analysis provided by the Draft IS-MND.

Melissa Whittemore

From: [REDACTED]thew <Matthew.Farris@sbcfire.com>
Sent: Thursday, November 4, 2021 10:22 AM
To: Susan Festerling; Melissa Whittemore
Subject: [EXT] FW: Brookside Avenue Fire Station Draft MND

CAUTION: This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .

I just received this email

From: Chris Hinds [REDACTED]
Sent: Thursday, November 4, 2021 10:20 AM
To: Farris, Matthew <Matthew.Farris@sbcfire.com>
Subject: Brookside Avenue Fire Station Draft MND

Caution: This email originated from a source outside of the County of Santa Barbara. Do not click links or open attachments unless you verify the sender and know the content is safe.

Staff-

I believe that the Noise Study did not consider the 31 approved town houses northwest of the proposed project site. Please include this approved future development into your study and take additional measurements near the proposed buildings.

Thank you,
Chris Hinds (Owner)

1.1

Letter 1

Commenter: Chris Hinds

Date: November 4, 2021

Response 1.1

The commenter states that the noise analysis in the Draft IS-MND did not consider the “31 approved town houses northwest of the proposed project site,” and requests that such an analysis be conducted.

The 31-townhome project site to which the commenter is referring is located immediately west and northwest of the eucalyptus grove located on the proposed project site and to the west of the site. A map for the 31-townhome project site was recorded in 1982, but the Development Plan that would allow development of the 31-townhome project expired before any development commenced. Most recently, on February 26, 2018, the applicant for the 31-townhome project submitted an additional time extension request for the Development Plan, but it was not ultimately granted so the Development Plan expired. Development of the 31-townhome project site raised by the commenter was not included in the Cumulative Projects list in the IS-MND because no entitlements for the site are currently approved and no applications have been submitted for future development of the site. However, as discussed below, if the site were included, noise impacts from the proposed project would be less than significant.

The noise analysis conducted as part of the IS-MND for the proposed project focused on potential noise impacts to the nearest noise-sensitive receivers, consisting of the single-family residences to the east of the site (along Brookside Avenue), which would be located at least 185 feet from the nearest rooftop-mounted heating, ventilation, and air conditioning (HVAC) equipment based on the location of the fire station, assuming HVAC equipment would be mounted in the center of the proposed fire station rooftop, and the distance between the fire station and off-site residence adjacent to the site’s eastern boundary. In comparison, the closest residence of the expired 31-townhome project would be approximately 300 feet from the nearest HVAC equipment for the proposed fire station and would be buffered by the existing eucalyptus grove that would remain on the project site. Additionally, as stated in the IS-MND, “Rooftop HVAC units are traditionally shielded from surrounding land uses with parapets and roofs that block line-of-sight to sensitive receivers would typically provide at least a 5 dBA noise reduction. Project HVAC operation would not exceed 65 dBA Community Noise Equivalent Level (CNEL) or result in a 3 dBA increase in existing noise levels due to HVAC use at the proposed fire station.” Because HVAC operation would not significantly impact the existing residences located at least 185 feet to the east of the proposed HVAC equipment, the HVAC equipment also would result in less-than-significant noise impacts to the expired 31-townhome project to the west.

The noise impact analysis also discusses noise due to siren use associated with the proposed fire station. As discussed in the IS-MND, noise-sensitive receivers in the immediate project vicinity may experience periodic exposure to high noise levels due to siren use. In terms of magnitude of noise exposure, a typical siren emits approximately 100 dB at 100 feet. However, because emergency vehicle response is, by nature, rapid, the duration of exposure to these peak noise levels is estimated to last for a maximum of 10 seconds as emergency vehicles pause at the driveway exit, engage the siren and turn onto the roadway and accelerate rapidly away from the fire station. Therefore, residents of existing nearby homes would be exposed to short-duration high noise levels

for approximately ten seconds during an emergency event; this would also be applicable to the expired 31-townhome project to the west. Further, the typical practice for emergency siren use is to use sirens to break traffic at intersections or warn drivers of the emergency vehicle approach when traffic is congested. Responses to nighttime emergency calls, when nuisance noise is most noticeable, routinely occur without the use of sirens. The IS-MND concludes that the relatively short duration of emergency events and the low frequency of siren use would not substantially change the existing CNEL¹ for the vicinity and would not exceed the County's noise threshold of 65 CNEL or result in a 3 dBA increase in existing noise levels due to emergency vehicle and siren use at the proposed fire station.

In summary, the existing residences to the east of the project site are closer to the noise-generating elements of the proposed fire station than the expired 31-townhomes project to the west. Noise impacts from the proposed project would be less than significant to the closest noise-sensitive receptors, as well as the expired 31-townhome project to the west, if developed in the future. Therefore, no revisions to the IS-MND are necessary based on this comment.

¹ Community noise can be measured using Community Noise Equivalent Level (CNEL), which is the 24 hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf).

Mitigation Monitoring and Reporting Program

Brookside Avenue Fire Station Project
November 17, 2021
State Clearinghouse No. 2021100068

This document is the Mitigation Monitoring and Reporting Program (MMRP) for the Brookside Avenue Fire Station Project, proposed in Santa Barbara County, California, and accompanies the Final Initial Study-Mitigation Negative Declaration (IS-MND). Public Resources Code Section 21081.6(a)(1) requires that a lead agency adopt an MMRP before approving a project to mitigate or avoid significant impacts that have been identified in an IS-MND. The purpose of the MMRP is to ensure that the project proponent implements the required mitigation measures identified in the Final IS-MND as part of the overall project development process. In addition to ensuring implementation of mitigation measures, the MMRP provides guidance to agency staff and decision-makers during project implementation and identifies the need for enforcement action before irreversible environmental damage occurs. Where the Final IS-MND identified an impact to be less than significant, the Final IS-MND and MMRP do not require any mitigation measures.

The following table summarizes the mitigation measures for each issue area identified in the Final IS-MND for the project. Specifically, the table identifies each mitigation measure; the action required for the measure to be implemented; the time at which the monitoring is to occur; the monitoring conditions; and the agency or party responsible for ensuring that the monitoring is performed. In addition, the table includes columns for compliance verification.

County of Santa Barbara
Brookside Avenue Fire Station

Mitigation Measure/Condition of Approval	Plan Requirements and Timing	Monitoring	Responsible Agency/Party for Monitoring	Compliance Verification		
				Initial	Date	Comments
AIR QUALITY						
<p>MM Air-01, Dust Control: In addition to the Santa Barbara County Air Pollution Control District’s (SBCAPCD) standard fugitive dust control measures, the project proponent shall comply with the following dust control components at all times including weekends and holidays:</p> <ul style="list-style-type: none"> ▪ Dust generated by the development activities shall be kept to a minimum with a goal of retaining dust on the site. ▪ During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day’s activities cease. ▪ During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. ▪ The construction area shall be wetted down after work is completed for the day and whenever wind exceeds 15 miles per hour. ▪ When wind exceeds 15 miles per hour, the site shall be watered at least once each day, including weekends and holidays. ▪ Increased watering shall occur as necessary to prevent transport of dust off-site. ▪ Soil stockpiled for more than two days shall be covered or treated with soil binders to prevent dust generation. Soil binders shall be reapplied as needed. ▪ If the site is graded and left undeveloped for over four weeks, the project proponent shall immediately: <ul style="list-style-type: none"> (i) Seed and water to revegetate graded areas; (ii) Spread soil binders; and/or (iii) Employ any other method(s) deemed appropriate by the County Planning and Development Department or SBCAPCD. 	<p>These Dust control requirements shall be included in the Stormwater Pollution Prevention Plan (SWPPP). The dust monitor shall be designated prior to grading permit issuance. The dust control components shall apply from the beginning of any grading/construction throughout all development activities.</p>	<p>The County shall ensure measures are included on plans. The County shall spot check and ensure compliance on site. SPCAPCD inspectors shall respond to nuisance complaints.</p>	<p>Construction Contractor, Santa Barbara County compliance monitoring staff, SBCAPCD</p>			

Mitigation Measure/Condition of Approval	Plan Requirements and Timing	Monitoring	Responsible Agency/Party for Monitoring	Compliance Verification		
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BIOLOGICAL RESOURCES						
<p>MM Bio-01, Tree Avoidance and Tree Protection Plan: If feasible, the County shall modify the proposed project to either incorporate (to implement Orcutt Community Plan [OCP] Policy BIO-O-3 and OCP EIR BIO-26) and/or avoid oak trees. A County-approved biologist and/or arborist shall prepare a Tree Protection Plan (TPP) to ensure avoidance of impacts to protected trees that are not planned for removal. The TPP shall include the following components:</p> <ul style="list-style-type: none"> a. Prior to the onset of any construction activities, high visibility orange construction fencing shall be installed around existing stands and individuals that are to be retained at a buffer/extent radius of six feet beyond the canopy dripline, wherever the topography allows for such fencing or otherwise marked in the field to protect them from harm during grading and construction. b. No construction equipment shall be parked, stored, or operated within 25 feet of any protected tree dripline. c. No fill soil, rocks, or construction materials shall be stored or placed within 25 feet of the dripline of a protected tree. d. No artificial surface, pervious or impervious, shall be placed within 25 feet of the dripline of any protected tree, except for County-approved project access roads. e. Any roots encountered that are one inch in diameter or greater shall be cleanly cut. This shall be done under the direction of a County-approved arborist/biologist. f. Any construction activity required within three feet of a protected tree’s dripline shall be done with hand tools. g. No permanent irrigation shall occur within the dripline of any existing protected tree. h. Only designated trees shall be removed. All grading and construction plans shall clearly delineate those trees to be removed and those to remain. 	<p>The County-approved biologist and/or arborist shall submit the TPP to the County. The County shall include as notes or depictions all plan components listed above, graphically depicting all those related to earth movement, construction, and temporarily and/or permanently installed protection measures that are indicated in the TPP. The construction contractor shall install the tree protection measures indicated in the TPP and project plans prior to the initiation of on-site project activities.</p>	<p>The County shall demonstrate that trees identified for protection were not damaged or removed or, if damage or removal occurred, that replacement is completed as required by the TPP prior to final building inspection clearance.</p>	<p>Construction Contractor, Project Biologist, Santa Barbara County compliance monitoring staff</p>			

County of Santa Barbara
Brookside Avenue Fire Station

Mitigation Measure/Condition of Approval	Plan Requirements and Timing	Monitoring	Responsible Agency/Party for Monitoring	Compliance Verification		
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<p>MM Bio-2, Tree Replacement Plan: If any protected oak tree will be removed, a Tree Replacement Plan shall be prepared by a certified arborist or landscape architect. The tree replacement plan shall be designed to replace native trees removed by the proposed project at a ratio of 10:1 (trees planted: trees impacted) for protected oak trees. Upon final design, the County or County-approved biologist and/or arborist shall determine the final impacts to protected trees and the subsequent number of replacement plantings needed for restoration for the project. Replacement trees shall be installed on-site. Monitoring of planted trees shall be for a minimum of seven years or until stasis has been determined by a certified arborist. The plan shall include the following components at a minimum:</p> <ul style="list-style-type: none"> i. Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type); j. Goal(s) of the compensatory mitigation project; k. Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values); l. Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan [including species to be used and container sizes]); m. Maintenance activities during the monitoring period, including weed removal and irrigation as appropriate (activities, responsible parties, schedule); n. Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports); 	<p>The County-approved biologist and/or arborist shall submit the Tree Replacement Plan to the County. Plan components shall be included on grading and landscaping plans.</p>	<p>The County shall demonstrate that all required components of the approved Tree Replacement Plan are in place as required prior to final inspection clearance and maintained throughout maintenance period.</p>	<p>Construction Contractor, Project Biologist/Arborist, Santa Barbara County compliance monitoring staff</p>			

Mitigation Measure/Condition of Approval	Plan Requirements and Timing	Monitoring	Responsible Agency/Party for Monitoring	Compliance Verification		
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<p>o. Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80 percent survival of container plants;</p> <p>p. An adaptive management program and remedial measures to address any shortcomings in meeting success criteria;</p> <p>q. Notification of completion of compensatory mitigation; and</p> <p>r. Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism).</p>						
<p>MM Bio-3, Northern California Legless Lizard and Western Spadefoot Pre-construction Survey and Relocation: At a minimum of two weeks prior to initiation of ground disturbing activities and vegetation removal, a County-approved biologist shall survey the limits of grading for northern California legless lizards and western spadefoot. Surveys for legless lizards shall include raking of leaf litter and sand under shrub and trees in suitable habitat within the disturbance footprint to a minimum depth of eight inches. If northern California legless lizards and/or western spadefoots are found and would be impacted by the project the County-approved biologist shall capture and relocate the species to designated open space areas on site or at County-approved off-site locations. Captured animals shall be placed into containers with sand or other moist substrates and released in the designated areas within three hours. In addition to preconstruction surveys, the biologist shall be on-site during initial grading activities to relocate any northern California legless lizards and/or western spadefoots that are unearthed during excavation. If in good health, they shall be immediately relocated to the designated relocation area. If injured, the animals shall be turned over to a California Department of Fish and Wildlife (CDFW)-approved specialist until they are in a condition suitable</p>	<p>Prior to ground-disturbing activities, the name, qualifications, scope, and contact information for the surveying biologist must be submitted to the County for approval in advance of the surveys. Proposed relocation areas shall be identified and approved by the County prior to beginning the work. A report of the results of the pre-construction survey and any required capture and relocation efforts shall be submitted to the County for review prior to initiation of ground-disturbing activities. Weekly monitoring reports shall be submitted to the County by the County-approved biologist during initial ground disturbing activities. Biological monitoring requirements are to be implemented during</p>	<p>The County and/or County-approved biologist shall monitor compliance with the above avoidance and minimization measures.</p>	<p>Construction Contractor, Project Biologist, Santa Barbara County compliance monitoring staff</p>			

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Mitigation Measure/Condition of Approval	Plan Requirements and Timing	Monitoring	Responsible Agency/Party for Monitoring	Compliance Verification		
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for release into the designated release area or deposited at an approved vertebrate museum.	construction. This measure shall be printed on all grading and construction plans.					
<p>MM Bio-4, Nesting Bird Surveys: If feasible, removal of vegetation within suitable nesting bird habitats will be scheduled to occur in the fall and winter (between September 1 and February 14), after fledging and before the initiation of the nesting season. For vegetation removal activities occurring during the nesting season (generally February 15 to August 31), surveys for nesting birds covered by the California Fish and Game Commission (CFGC) and the Migratory Board Treaty Act (MBTA) shall be conducted by a qualified biologist no more than 14 days prior to vegetation removal. The surveys shall include the disturbance area plus a 300-foot buffer around the site, or to the topographic divide where substantial topography is present in the buffer. If active nests are located, all construction work shall be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer shall be a minimum of 50 feet for non-raptor bird species and at least 300 feet for raptor species. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed, and young have fledged the nest prior to removal of the buffer. If buffer zones are determined to be infeasible, a full-time qualified biological monitor must be onsite to monitoring construction within the buffer zones to ensure active nests and nesting birds are not impacted.</p>	<p>The surveys shall be conducted no more than 14 days prior to the initiation of vegetation and/or tree removal activities. A report of the nesting bird survey results shall be submitted to the County for review and approval prior to construction activities which involve tree or vegetation removal. These measures are to be implemented during grading and construction activities.</p>	<p>The County and/or County-approved biologist shall monitor compliance with the above avoidance and minimization measures. Active nests shall be monitored periodically by the County-approved biologist until it has been determined that the nest is no longer being used by either the young or adults.</p>	<p>Construction Contractor, Project Biologist, Santa Barbara County compliance monitoring staff</p>			

Mitigation Measure/Condition of Approval	Plan Requirements and Timing	Monitoring	Responsible Agency/Party for Monitoring	Compliance Verification		
				Initial	Date	Comments
GEOLOGIC PROCESSES						
<p>MM Geo-1, Unanticipated Discovery of Paleontological Resources: In the event an unanticipated fossil discovery is made during project development, construction activity shall be halted in the immediate vicinity of the fossil, and a qualified professional paleontologist shall be notified and retained to evaluate the discovery, determine its significance, and determine if additional mitigation or treatment is warranted. Work in the area of the discovery shall resume once the find is properly documented and authorization is given to resume construction work. Any significant paleontological resources found during construction shall be prepared, identified, analyzed, and permanently curated in an approved regional museum repository under the oversight of the qualified paleontologist.</p>	<p>The qualified paleontologist shall evaluate any unanticipated fossil discovery made during ground-disturbing activities on the project site. The find shall be properly documented, and the findings shall be reported to the County. Construction activities shall resume once the paleontologist approves such. Any significant paleontological resources found during construction monitoring shall be prepared, identified, analyzed, and permanently curated in an approved regional museum repository under the oversight of the qualified paleontologist.</p>	<p>The County and/or qualified paleontologist shall monitor compliance with the above avoidance and minimization measures</p>	<p>Construction Contractor, Project Paleontologist, Santa Barbara County compliance monitoring staff</p>			
NOISE						
<p>MM N-01, Construction Noise Control and Equipment Shielding: The project proponent, including all contractors and subcontractors, shall limit construction activity, including equipment maintenance and site preparation, to the hours of 7:00 a.m. and 4:00 p.m., Monday through Friday. No construction shall occur on weekends or State holidays. Non-noise generating interior construction activities such as plumbing, electrical, drywall and painting (which does not include the use of compressors, tile saws, or other noise-generating equipment) are not subject to these restrictions. Any subsequent amendment to the Comprehensive General Plan, applicable Community or Specific Plan, or Zoning Code noise standard upon which</p>	<p>These requirements shall be noted in plan specifications. Additionally, the project proponent shall provide and post a sign stating these restrictions at all construction site entries. The project proponent and contractor shall demonstrate compliance with noise standards to the County prior to commencement of construction and throughout construction activities. Signs shall be posted prior to commencement of construction</p>	<p>The project proponent shall demonstrate that required signs are posted prior to grading/building permit issuance and pre-construction meeting. Building inspectors and permit compliance staff shall spot check and respond to complaints.</p>	<p>Construction Contractor, Santa Barbara County compliance monitoring staff</p>			

County of Santa Barbara
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Mitigation Measure/Condition of Approval	Plan Requirements and Timing	Monitoring	Responsible Agency/Party for Monitoring	Compliance Verification		
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<p>these construction hours are based shall supersede the hours stated herein.</p> <p>Construction noise shall be limited to 65 CNEL as measured at the property line of existing noise-sensitive residential land uses. The contractor may utilize a combination of techniques to reduce the impact of construction to less than 65 CNEL, such as the following noise attenuation techniques:</p> <ul style="list-style-type: none"> ▪ Use new or well-maintained construction equipment that reduces sound levels. ▪ Maintain acoustic shielding of stationary construction equipment that generates noise in excess of 65 dBA L_{eq}. ▪ Implement a phased construction schedule to minimize or avoid multiple noise-generating activities occurring at the same time. ▪ Locate stationary construction equipment away from noise-sensitive land uses. ▪ Turn off idling equipment. ▪ Use other noise-dampening and sound diversion techniques. 	and maintained throughout construction.					