Notice of Preparation

To: Trustee/Responsible Agencies

(Address)

From: City of Soledad

248 Main Street

Soledad, CA 93960

(Address)

Subject: Notice of Preparation of a Draft Environmental Impact Report Focused on Vehicle Miles Traveled Impacts

The City of Soledad will be the Lead Agency and will prepare an environmental impact report for the project that is focused on evaluating VMT impacts of the project. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities regarding the proposed project. Your agency may need to use the EIR prepared by our agency when considering permits or other approvals for the project for which your agency has discretion.

The project description, location, and potential environmental effects of the project are identified in the attached Initial Study. The Initial Study identifies that with one exception, all potentially significant impacts of the project are reduced to less than significant. The Initial Study also identifies that the vehicle miles traveled impact of the project is significant and unavoidable. The conclusions in the Initial Study will be used to focus the environmental impact report on the vehicle miles traveled impact. Mitigation measures in the Initial Study and EIR will be included in the mitigation monitoring and reporting program.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice.

Please send your response to Ariana Mora, Senior Planner at the address shown above. We will need the name for a contact person in your agency.

Project Title: Almond Acres Subdivision and Planned Unit Development

Project Applicant, if any: Nino Homes at Almond Acres Inc.

Date March 7, 2025 Signature Ariana Mora

Title Senior Planner

Telephone 831-223-5020

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

Public Review Draft Initial Study

Almond Acres

Subdivision and Planned Unit Development

February 4, 2025

Prepared by

EMC Planning Group

PUBLIC REVIEW DRAFT INITIAL STUDY

ALMOND ACRES

SUBDIVISION AND PLANNED UNIT DEVELOPMENT

PREPARED FOR

City of Soledad

Ariana Mora, Senior Planner

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February 4, 2025

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A. BACKGROUND

Project Title	Almond Acres
Lead Agency Contact Person and Phone Number	Ariana Mora, Senior Planner 831-223-5020
Date Prepared	February 4, 2025
Study Prepared by	EMC Planning Group Inc. 601 Abrego Street Monterey, CA 93940
Project Location	Orchard Lane, between Cedar Lane and Calle Valverde (APN 022-282-005)
Project Sponsor Name and Address	Nino Homes at Almond Acres Inc. PO Box 1180 Tres Pinos, CA 95075
General Plan Designation	Single-Family Residential
Zoning	Single-Family Residential (R-1)

Setting

The project site is a 12.48-acre parcel (APN 022-281-005) fronting on the segment of Orchard Lane located between Cedar Lane and Calle Valverde in the City of Soledad. The site is bordered by residences to the north and east, San Vicente Elementary School to the south, and Gabilan Elementary School and the Soledad Community Center to the west.

The majority of the project site is undeveloped, and comprised of non-native annual grassland and ruderal vegetation. Eighteen mobile homes are located in the southwestern portion of the property that would remain. Three houses front Orchard Lane – these homes would be removed. The site slopes mildly from northeast to southeast, with elevations ranging from about 234 feet in the northeast to about 224 feet in the southwest.

Figure 1, Location Map, shows the regional location of the site. Figure 2, Aerial Photograph, illustrates the existing on-site and surrounding uses and other features. Figure 3, Site Photographs, shows representative conditions within and bordering the site.

Description of Project

The applicant is requesting approval of a vesting tentative subdivision map (TSM 2024-01) to subdivide the site into three parcels (A, B, and C), and develop a 55-lot single-family subdivision. The existing mobile home park would be retained on Parcel A (3.32 acres). A new 12-unit, multi-family apartment building is planned on Parcel B (0.38 acres), and stormwater improvements would be installed on Parcel C (0.41 acres). The single-family subdivision would be constructed

on the balance of the site (5.31 acres), with the 3.06-acre balance comprised of new internal roadways. Forty-seven of the single family lots would be 4,250 square feet or less, with the remaining eight lots ranging from 4,500 to 7,358 square feet. A total of 67 units are planned.

A Planned Unit Development approval is also required to allow for the site planning flexibility being proposed.

Figure 4, Site Plan, shows the development layout while the full vesting tentative subdivision map, which includes the site plan and the grading and utility plan, can be found in Appendix A.

New internal roads would be constructed to access all parcels and individual lots. Existing Cardena Drive would be extended west into the site to terminate in a cul-de-sac. Streets A and B would extend south from Cardena Drive with a Street C cul-de-sac constructed east from Street B. Cedar Lane is an existing street that traverses about half of the southern site boundary from. It would be improved to City standards to provide a second access to Orchard Lane. All new streets would be 50 feet wide, with two 12-foot travel lanes, two 8-foot parking lanes and 5-foot sidewalks on both sides.

A bio-retention facility is planned on Parcel C to be consistent with stormwater management and water quality control requirements. Underground stormwater chambers would be used and sized to retain greater than the 95th percentile stormwater runoff volumes.

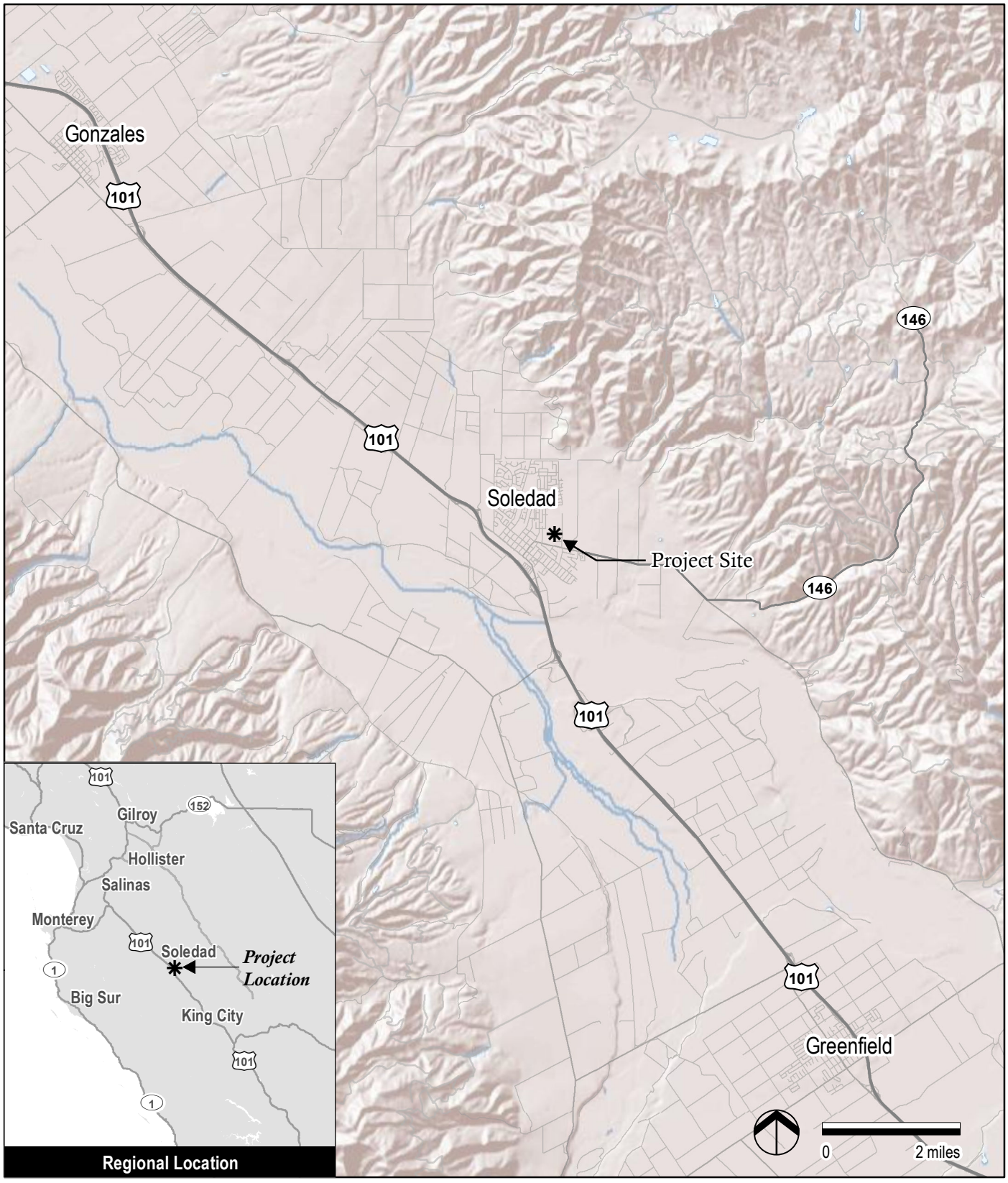
Other Public Agencies Whose Approval My Be Required

California Department of Fish and Wildlife

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The City sent tribal consultation offer letters to the Native American Tribes traditionally and culturally affiliated with the project area on August 19, 2024. As of January 29 2025, one tribe responded but did not request consultation.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.



Source: ESRI 2024

Figure 1

Location Map

Almond Acres Initial Study

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0 300 feet

Project Site

Source: Monterey County GIS2024, Google Earth 2024

Figure 2

Aerial Photograph

Almond Acres Initial Study

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1 On Orchard Lane facing west at the project site.

2 On Orchard Lane facing west at the two existing residences to be removed.

3 On Orchard Lane facing northwest at the project site.

Source: Google Earth 2024
Photographs: EMC Planning Group 2024

Figure 3
Site Photographs

Almond Acres Initial Study

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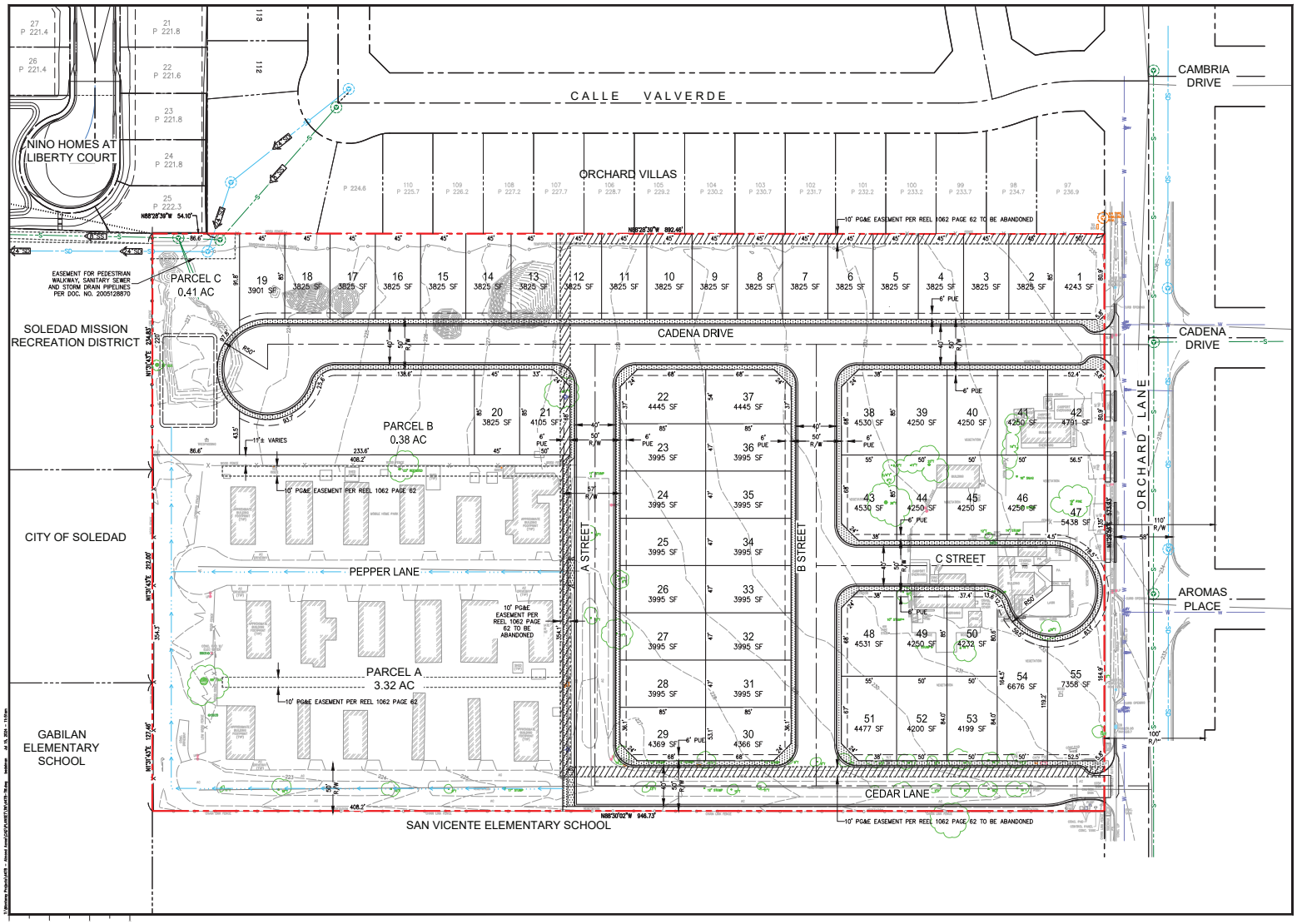

0 160 feet

Project Site
Storm Drain
Tree
Water Line

Source: Whitson Engineers 2024

Figure 4
Vesting Tentative Map

Almond Acres Initial Study

E M C

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B. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture and Forestry Resources	☐ Hazards & Hazardous Materials	☐ Recreation
☐ Air Quality	☐ Hydrology/Water Quality	☒ Transportation
☐ Biological Resources	☐ Land Use/Planning	☐ Tribal Cultural Resources
☐ Cultural Resources	☐ Mineral Resources	☐ Utilities/Service Systems
☐ Energy	☐ Noise	☐ Wildfire
☐ Geology/Soils	☐ Population/Housing	☐ Mandatory Findings of Significance

C. DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (1) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (2) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Ariana Mora, Senior Planner _____ Date

D. EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analyses Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a) the significance criteria or threshold, if any, used to evaluate each question; and
    b) the mitigation measure identified, if any, to reduce the impact to less than significance

1. AESTHETICS

Except as provided in Public Resources Code Section 21099 (Modernization of Transportation Analysis for Transit-Oriented Infill Projects), would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b.	Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d.	Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Comments:

a. The *General Plan* (General Plan) and the *Draft Environmental Impact Report for the City of Soledad 2004 General Plan and Wastewater Treatment and Disposal Master Plan* (General Plan EIR) do not specifically describe scenic vistas to be considered from a CEQA perspective. Scenic vistas are views that possess visual and aesthetic qualities of high value to the community. Therefore, it is assumed for the purpose of this initial study that the views of the distant mountain ranges (Santa Lucia to the west/southwest) from major public viewing areas are considered sensitive.

The extent to which the proposed project may have potential to block views of the Santa Lucia Mountains to the west/southwest of the site is considered to be a measure of its potential to adversely affect a scenic vista. Figure 3, Site Photographs, shows that views of the Santa Lucia Mountains are present from Orchard Lane for northbound and southbound travelers. The current views of the Santa Lucia Mountains may be obscured to travelers on Orchard Lane as a result of the proposed project. However, this change would not be considered significant.

Development on in-fill parcels typically has less of an impact on scenic views than development at the urban fringe. The project is proposed on an infill site that is surrounded by existing development. Further, the scale of the project is consistent with

adjacent residentially developed projects and would not have greater potential to affect views than existing developed views. Therefore, its impact on scenic vistas would not be significant.

b. There are no state scenic highways within or adjacent to the city (California Department of Transportation 2024). Therefore, the proposed project would not substantially damage scenic resources within a scenic highway.

c. Sites within the City of Soledad do not meet the CEQA definition of "urbanized area" because the City does not have a population over 100,000 people and is not contiguous to other incorporated cities.

The site contains a mobile home park and three homes, one home of which was built in 1950, with the remainder of the site being undeveloped non-native annual grassland and ruderal vegetation. The proposed project would result in a change to the existing visual character of the site.

The height restriction for the R-1 zoning district is two stories or 30 feet (City Municipal Code Section 17.10.040(D)(1). The proposed apartment building would be approximately 26 feet (two stories). The proposed single-family homes would be one- and two-stories and would be located on the northern and eastern half of the site. These homes would be compatible with existing residences to the north and east of the site that are also one and two stories. The proposed uses and architectural elements are in keeping with the character of the surrounding development pursuant to General Plan Policy L-13 and Municipal Code Section 17.38.230.B.5. The proposed project is consistent with the design regulations for and anticipated use of the project site, which has a general plan designation and zoning designation of Single-Family Residential.

The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings.

d. The proposed project would place new residential subdivision on vacant land that is surrounded by existing urban uses. Residential subdivisions are not typically notable sources of light and glare, and this would be the case for the proposed project.

City Municipal Code Section 17.38.270 in the City Municipal Code addresses lighting. It states that security lighting for multi-family uses shall be provided for carports and that lighting fixtures and their location shall be approved by the City Building Official and Police Chief. Lighting is required to be directed so as to not create glare or illuminate adjoining property. These regulations also require that lighting for multi-family developments be directed so as to not illuminate adjoining property. The multi-family residential component of the project will be reviewed for conformance with the regulations outlined in this section through the City's design review process. Single-family residential uses are commonly not a source of potential lighting impacts.

The project will have less-than-significant lighting and glare impacts.

2. AGRICULTURE AND FOREST RESOURCES

In determining whether impacts on agricultural resources are significant environmental effects and in assessing impacts on agriculture and farmland, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Comments:

a. The project site is identified as Other Land by the California Department of Conservation (California Department of Conservation 2024). Its development would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to nonagricultural use.

b. The project site is not in agricultural use, is zoned Single-Family Residential (R-1), and is not located within or near lands under a Williamson Act contract (Monterey County 2024). The project would not conflict with existing zoning for agricultural use or with a Williamson Act contract.

c-e. The project site contains no forest or timberland resources. The project is being proposed on an urban infill site surrounded by existing urban development. The nearest agricultural land is located one-quarter mile to the east. The project would have no potential to result in conversion of agricultural or forest land. Therefore, no impacts would occur with regard to forest or timberland resources.

3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d.	Result in other emissions, such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

The city is within the North Central Coast Air Basin (air basin), which is under the jurisdiction of the Monterey Bay Air Resources District (air district). The analysis in this section is based on the air district's *CEQA Air Quality Guidelines* (2008) (CEQA guidelines) guidance, the *2012 – 2015 Air Quality Management Plan* (2017) ("air quality management plan"), and the results of emissions modeling using the California Emission Estimation Model (CalEEMod) version 2022.1.

Air emissions modeling was conducted to quantify criteria air emissions that would be generated during project construction and operations. An "unmitigated" model run was conducted that yields emissions volumes in the absence of mitigation measures that otherwise might be required. This model scenario accounts for uniformly applied existing regulatory measures that reduce emissions. The CalEEMod results are included in Appendix B. Model inputs to the model take into account the type and size of proposed uses by applying CalEEMod default land uses based on the size metrics shown on the project plans (Whitson Engineers 2024). The land use type and size metrics inputs are presented in Table 1, Project Characteristics.

Table 1 Project Characteristics

Proposed Land Use	CalEEMod Land Use Subtype[1]	Quantity
Residential	Single Family Housing	55 dwelling units
Apartments	Apartments Low Rise	12 dwelling units
Street Right-of-Way	Other Asphalt Surfaces	133,293.6 square feet

SOURCE: CalEEMod version 2022.1, Whitson Engineers 2024

NOTES:

1. CalEEMod default land use subtype. Descriptions of the model default land use categories and subtypes are found in the User's Guide for CalEEMod Version 2022.1 available online at: https://caleemod.com/user-guide.

Unless otherwise noted, other data inputs to CalEEMod are based on the following primary assumptions:

- Construction will start in 2025;
- Buildout year is 2028;
- Three existing on-site residential structures will be demolished;
- 100 percent (12 units) of the proposed multifamily residential use will be affordable and below market rate housing; and
- The proposed project would be served with power, water, and sewer by utility providers.

Comments:

a. The air district has the primary responsibility for assuring that federal and state ambient air quality standards are attained and maintained in the air basin. An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of an air quality plan is to bring the area into compliance with the requirements of federal and state ambient air quality standards. CEQA requires the analysis of proposed projects to ensure future development is consistent with applicable air quality plans.

The 2017 air quality management plan was designed to bring the air district into attainment for ozone emissions. As of 2020, the air basin is no longer in non-attainment for ozone emissions. Consequently, the air district is no longer required to prepare an air quality management plan specifically for this purpose. The air district is currently working to address this change in future updates to its CEQA guidelines. However, the updated guidance will not be available during the time of this assessment. Therefore, the project's consistency with the 2017 plan is evaluated based on the methodology previously recommended by the air district as described below.

Projects directly linked to population growth produce emissions associated with that growth, such as those from motor vehicles and residential heating and cooling. These population-related emissions have been accounted for in the air quality management plan. Population-related projects that align with the forecasted emissions values are regarded as consistent with the air quality management plan. The air district uses consistency with the air quality management plan to determine a project's cumulative impact on regional air quality under CEQA.

The air district has established a consistency determination procedure tied to population growth – a project that does not result in an increase in population beyond that projected by the Association of Monterey Bay Area Governments for the jurisdiction in which the project is located is considered not to conflict with the air quality management plan.

The most recent growth projections for the City of Soledad are in the *2022 Regional Growth Forecast* (Association of Monterey Bay Area Governments 2022). Population

within the city is projected to increase by approximately 2.7percent, or 712 people, from 26,112 in 2025 to 26,824 by 2030. The proposed project would develop a total of 67 residential units, providing housing for an estimated 308 people (67 units x 4.6 persons per household). This population increase is within the project 2022 Regional Growth Forecast increase. Therefore, the proposed project would not conflict with or obstruct the air quality management plan.

b. The six most common and widespread air pollutants of concern, or "criteria pollutants," are ground-level ozone, nitrogen dioxide, particulate matter, carbon monoxide, sulfur dioxide, and lead. In addition, reactive organic gases (ROG), also referred to as volatile organic gases (VOC), are a key contributor to the criteria air pollutants because they react with other substances to form ground-level ozone. Health effects of from prolonged exposures to criteria air pollutants include asthma, bronchitis, chest pain, coughing, and heart diseases are also a key air quality concern.

The air district is responsible for monitoring air quality in the air basin, which is designated under state criteria as a nonattainment area for suspended particulate matter (PM_{10}). The air basin is in attainment under both federal and state designations for all other criteria air pollutants (Monterey Bay Air Resources District 2024).

State air emissions standards are promulgated by the California Air Resources Board as mandated by the California Clean Air Act. The air district has developed criteria pollutant emissions thresholds, which are used to determine whether or not a proposed project would violate an air quality standard or contribute to an existing violation during operations and/or construction. Based on the air district's CEQA guidelines, a project would have a significant air quality impact if it would:

- Emit 137 pounds per day or more of an ozone precursor air pollutant (volatile organic compounds or nitrogen oxides);
- Directly emit 550 pounds per day or more of carbon monoxide (CO);
- Directly emit 150 pounds per day or more of sulfur dioxide (SO_2);
- Generate traffic that significantly affects levels of service (resulting in a significant localized source of carbon monoxide emissions);
- Emit 82 pounds per day or more of suspended particulate matter (PM_{10}) on-site; or
- Emit 82 pounds per day or more of suspended particulate matter from vehicle travel on unpaved roads.

Construction Criteria Air Pollutant Emissions. Construction activities are temporary sources of potential air quality impacts that, depending on the size and type of the project, commonly occur in limited time periods. Construction emissions have the potential to impact local air quality and/or pose localized health risks. Localized health risks are discussed under item "c" of this section. Construction emissions include equipment exhaust and fugitive dust emissions generated during grading, and ozone precursor emissions generated during the application of architectural coatings and asphalt paving material.

The air district CEQA guidelines report that construction projects using typical construction equipment such as dump trucks, scrappers, bulldozers, compactors and front-end loaders that temporarily emit ozone precursors such as volatile organic compounds (VOC) or oxides of nitrogen (NO_x), are accommodated in the emission inventories of State- and federally-required air plans and would not have a significant impact on the attainment and maintenance of ozone thresholds. However, earthmoving activities and equipment exhaust have the potential to generate PM_{10} emissions at levels that could result in a significant environmental impact

Criteria air pollutant emissions that would be generated during construction are shown in the CalEEMod results in Appendix B. Table 2, Unmitigated Construction PM_{10} Emissions, summarizes the modeling results.

Table 2 Unmitigated Construction PM_{10} Emissions

Emissions Source	Suspended Particulates (PM_{10}) (Pounds Per Day)	Threshold of Significance (Pounds Per Day)	Threshold Exceeded?
Construction	9.4	82	No

SOURCE: EMC Planning Group 2024, CalEEMod Version 2022.1
NOTES:
1. Maximum daily values used for reporting PM_{10} emissions.

The model results show that construction emissions (fugitive dust and equipment exhaust) would not exceed the construction emissions threshold for PM_{10}. Therefore, the proposed project would not result in significant impacts to air quality during construction.

Operational Criteria Air Pollutant Emissions. The air district CEQA Guidelines include screening criteria for project types and sizes below which ozone precursor emissions (VOC and NO_X) thresholds would not be exceeded. The screening criteria can be used by lead agencies as a conservative indication of whether implementing a proposed project could generate operational criteria air pollutants that would result in a significant impact. If the development capacity for a proposed development is below the applicable screening criteria value, operation of the project would result in a less-than-significant impact.

In comparison to the screening criteria found in Table 5-4 of the CEQA guidelines, the proposed development capacity of 67 residential units is well below the screening size of 810 units for single-family projects and 1,080 units for low-rise apartment projects (Monterey Bay Air Resources District 2008, Page 5-7). Therefore, the project would not generate VOC or NO_X emissions that would exceed the thresholds of significance.

Air district CEQA Guidelines Table 5-3, Thresholds of Significance for Criteria Pollutants of Concern Operational Impacts, can be used to determine if a project's operational emissions would exceed CO and SO_2 ambient air quality standards. As shown in Table 3, Unmitigated Operational CO and SO_2 Emissions, project emissions are estimated to be well below the thresholds.

Table 3 Unmitigated Operational CO and SO_2 Emissions

Emission	Carbon Monoxide (CO) (Pounds per Day)	Sulfur Oxides (SO_2) (Pounds per Day)
Annual[1]	18.4	0.05
Air District Thresholds	550	150
Exceeds Threshold?	**No**	**No**

SOURCE: CalEEMod version 2022.1, Monterey Bay Air Resources District 2008
NOTES:
1. Total winter maximum daily values used for reporting CO and SO_2 emissions.

Given the analysis above, criteria air emissions during project construction and operations would not exceed any of the thresholds of significance. Therefore, the project would have a less than significant cumulative contribution criteria air pollutant emissions impact.

c. Operations of residential uses are not commonly sources of toxic air contaminants (TACs) that would increase health risks. However, project construction activities would generate temporary and limited localized TAC emissions from diesel equipment exhaust

TACs are pollutants that can, under intense or prolonged exposure, result in an increase in mortality or serious illness or may pose a present or potential hazard to human health. Health effects include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases that lead to death. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuels combustion, and commercial operations (e.g., dry cleaners). Diesel exhaust is the predominant TAC and is estimated to represent about two-thirds of the cancer risk from TACs. Diesel particulate matter (DPM) is the primary TAC of concern within diesel exhaust. The primary community risk impact issues associated with construction exhaust emissions are cancer risk (DPM exposures) and exposure to $PM_{2.5}$.

A sensitive receptor is generally defined as a location where human populations, especially children, seniors, and sick persons, are located where there is reasonable expectation of continuous human exposure. These typically include residences, hospitals, and schools. The sensitive receptors nearest to the project site are residential homes located adjacent to the project site on the north, east, and west, as well as San Vincent Elementary School and Gabilan Elementary School, located approximately 150 feet south and 350 feet to the southwest, respectively.

The air district recommends the use of best management practices during construction to reduce construction fugitive dust emissions by up to 50 percent (Monterey Bay Air Resources District 2008). These practices also reduce TAC emissions volumes. Additionally, emissions from diesel powered engines used in construction are subject to control under regulations adopted by both California Air Resources Board and U.S. EPA. U.S. EPA promulgated new emission standards for off-road engines in 1998, with CARB

adopting parallel standards in 2000. In 2004, Tier 4 emission standards were adopted and were phased in for new engines between 2011 and 2014. In 2007, the California Air Resources Board adopted an off-road equipment regulation to accelerate reductions of NO_x and diesel PM from existing off-road engines. Beginning in 2012 and through 2023, the off-road regulation requires operators of older equipment to either install abatement devices, upgrade to Tier 3 and eventually Tier 4 engines, or to retire older equipment.

Implementation of the following mitigation measure, which reflect the air district's best management practices, would ensure that health risks from potential exposures to construction TAC emissions would be less than significant.

Mitigation Measure

AQ-1 The applicant shall prepare a construction management plan that shall specify best management practices for reducing toxic air contaminants from diesel powered equipment used during construction activities. The plan shall include the following measures, which shall be included in all bid documents, grading and construction plans and implemented by the project contractor during construction.

a. Heavy-duty diesel vehicles will have 2010 or newer model year engines, in compliance with the California Air Resources Board's Truck and Bus Regulation, and will not be staged within 500 feet of occupied residences.

b. Idling of construction equipment and heavy-duty diesel trucks will be avoided where feasible, and if idling is necessary, it will not exceed three minutes.

c. All construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications and will be checked by a certified visible emissions evaluator.

d. All non-road diesel construction equipment will, at a minimum, meet Tier 3 emission standards listed in the Code of Federal Regulations Title 40, Part 89, Subpart B, §89.112. Further, where feasible, construction equipment will use alternative fuels such as compressed natural gas, propane, electricity or biodiesel.

The construction management plan shall be subject to the review and approval of the Director of Public Works, who shall also ensure that the best management practices are shown on all development plans as contractor work specifications prior to issuance of a grading permit.

d. Odors are objectionable emissions of one or more pollutants that are a nuisance to healthy persons and may trigger asthma episodes in people with sensitive airways. Nuisance odors are commonly associated with refineries, landfills, sewage treatment, agriculture, etc. (Monterey Bay Air Resources District 2008). The proposed project would not be a source of odors that would affect a substantial number of people.

4. BIOLOGICAL RESOURCES

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
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, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☒	☐	☐
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US 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, filing, 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?	☐	☐	☐	☒

Comments:

A reconnaissance-level biological field survey of the project site was conducted by EMC Planning Group biologist Rose Ashbach, M.S., on October 11, 2024, to document existing plant communities/wildlife habitats and assess the suitability of the site to support special-status species. Biological resources were documented in field notes, including plant and wildlife species observed, dominant plant communities, wildlife habitat quality, disturbance levels, and aquatic resources.

Prior to conducting the survey, Mrs. Ashbach reviewed project plans, aerial photographs, natural resource database accounts, and other relevant scientific literature. This included searching the U.S. Fish and Wildlife Service (USFWS) *Endangered Species Database* (USFWS 2024a), California Department of Fish and Wildlife (CDFW) *California Natural Diversity Database* (CDFW 2024a, CDFW 2024b), and California Native Plant Society (CNPS) *Inventory of Rare and Endangered Plants* (CNPS 2024a) to identify special-status plants, wildlife, and habitats known to occur in the vicinity of the project. A review of the USFWS National Wetlands Inventory (NWI) database was also conducted to identify jurisdictional aquatic features (wetlands, drainages, and/or riparian areas) on or adjacent to the project site (USFWS 2024b).

Existing Conditions

The project site consists of one parcel (APN 022-281-005. It includes approximately nine acres of undeveloped non-native annual grassland and ruderal habitats. There is a vegetated storm drainage channel that collects runoff from the surrounding residential developments and streets that runs adjacent to the project site on Orchard Lane. The site is surrounded by existing urban development. Site topography is gently sloping to the southwest with a bermed soil pile in the north west corner. There are three houses on Orchard Lane that would be removed as a part of the project and a mobile home park in the southwest corner that would remain.

Plant and Wildlife Habitats

The survey took place after senescence (die-off) of most floral species. However, identification of the remaining vegetation provided insight to the distribution of vegetation on the site. The project site is dominated by annual non-native grasses and ruderal disturbed vegetation. However, species dominance shifts within the project site depending on location. Additionally, trees around existing residences, and along streets may provide habitat for nesting birds and other wildlife species. Figure 5, Habitat Map, shows existing habitat conditions on the site.

Nonnative Annual Grassland. Non-native annual grasses dominate the bulk of the site. Annual non-native grasses include ripgut brome (*Bromus diandrus*), Italian rye (*Festuca perennis*), soft chess brome (*Bromus hordeaceous*), wild oats (*Avena* sp.), and wall barley (*Hordeum murinum*). Additional dominant species throughout the site included berry saltbrush (*Atriplex sembaccata*), Russian thistle (*Salsola australis*), bur clover (*Medicago polymorpha*), and black mustard (*Brassica nigra*). Coyote brush (*Baccharis pilularis*) is found around the perimeter of the site and around the residential units to be removed.

Source: ESRI 2024, EMC Planning Group 2024

Figure 5

Habitat Map

Almond Acres Initial Study

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Ruderal Vegetation. Mixed with the annual grasses are a variety of non-native ruderal species including berry saltbrush, Russian thistle, and black mustard, bur clover, and horse weed (*Erigeron canadensis*). On the western side of the property additional dominant species include native species fragrant everlasting (*Pseudognaphalium beneolens*), which grows on dry disturbed sites. Other species in this portion of the site include non-native narrow-leaved filago (*Logfia gallica*), spurrey (*Spergularia sp.*), narrow-leaved plantain (*Plantago lanceolata*), turkey mullein (*Croton setiger*), rough cat's ear (*Hypochaeris radicata*), and California poppy (*Eschscholzia californica*).

Within the ruderal vegetation, the soil appeared to be compacted with only one observed ground squirrel burrow located adjacent to the residences along Orchard Lane. Piles of soil, gravel, and unused construction material were staged along the west and north boundary of the site. American crow (*Corvus americanus*), rock dove (*Columba* sp.), and Eurasian collared doves (*Streptopelia decaocto*) were observed feeding on the ground. Domesticated cat (*Felis catus*) and dog (*Canis lupus familiaris*) scat was present throughout the site.

Ornamental Trees. There were a number of ornamental trees surrounding the property, among the existing residences to be removed, along Orchard Lane and Cedar Lane, and surrounding the mobile home park. Ornamental and street trees included beefwood (*Casuarina* sp.), strawberry tree (*Arbutus unedo*), firethorn (*Pyracantha coccinea*), Persian silk tree (*Albizia julibrissin*), almond trees (*Prunus amygdalus*), oleander (*Nerium oleander*), and coast redwood (*Sequoia sempervierens*). Additional shrub vegetation surrounded some of the ornamental trees, including coyote brush and rosemary (*Salvia rosmarinus*). A large flock of house sparrows (*Passer domesticus*) were observed within the oleander hedge adjacent to the mobile home park. Northern mocking bird (*Mimus polyglottos*), white crowned sparrows (*Zonotrichia leucophrys*), house finch (*Haemorhous mexicanus*), Anna's hummingbird (*Calypte anna*), Eurasian collared doves, and American crows were observed within the almond trees. Several large California ground squirrel (*Otospermophilus beecheyi*) burrows were observed within the row of planted almond trees adjacent to Cedar Lane.

Although no other wildlife was observed, additional species that might be found onsite include deer mouse (*Peromyscus* sp.), striped skunk (*Mephitis mephitis*), Botta's pocket gopher (*Thomomys bottae*). Bird species may utilize the site include, but are not limited to, California thrasher (*Toxostoma redivivum*), common yellowthroat (*Geothlypis trichas sinuosa*), black phoebe (*Sayornis nigricans*), American robin (*Turdus migratorius*), and dark eyed junco (*Junco hyemalis*).

Aquatic/Wetland. The National Wetland Inventory includes an excavated palustrine freshwater emergent wetland located outside the eastern boarder of the project site (PEM1Cx) (USFWS 2024b). No wetlands were observed within the site. No freshwater emergent wetland was observed adjacent to the site. A stormwater swale located on both sides of Orchard Lane collects street and residential runoff. Vegetation here included yarrow (*Achillea millifolium*), deckreed (*Elegia nuda*), and other grasses.

a. **Special-Status Species**. A search of the California Department of Fish and Wildlife *California Natural Diversity Database* (CNDDB) was conducted for the site and the surrounding eight U.S. Geological Survey (USGS) quadrangles in order to generate a list of potentially occurring special-status species for the project vicinity (CDFW 2024). Records of occurrences for special-status plants were reviewed for those quadrangles in

the CNPS *Inventory of Rare and Endangered Plants of California* (CNPS 2024). A USFWS *Endangered Species Program* threatened and endangered species list was also generated for the project parcel, and the USFWS *Critical Habitat for Threatened & Endangered Species* online mapper was reviewed (USFWS 2024a & USFWS 2024c). Special-status species in this report are those listed as Endangered, Threatened, or Rare or as candidates for listing by the USFWS and/or CDFW; as Species of Special Concern or Fully Protected species by the CDFW; or as Rare Plant Rank 1B or 2B species by CNPS. Appendix C, Special-Status Species with Potential to Occur in the Project Vicinity, presents tables with special-status species search results, which lists the special-status species documented within the project vicinity, their listing status, suitable habitat description, and their potential to occur on the project site. Figure 6, Special-Status Species Map, presents a map of the CNDDB results.

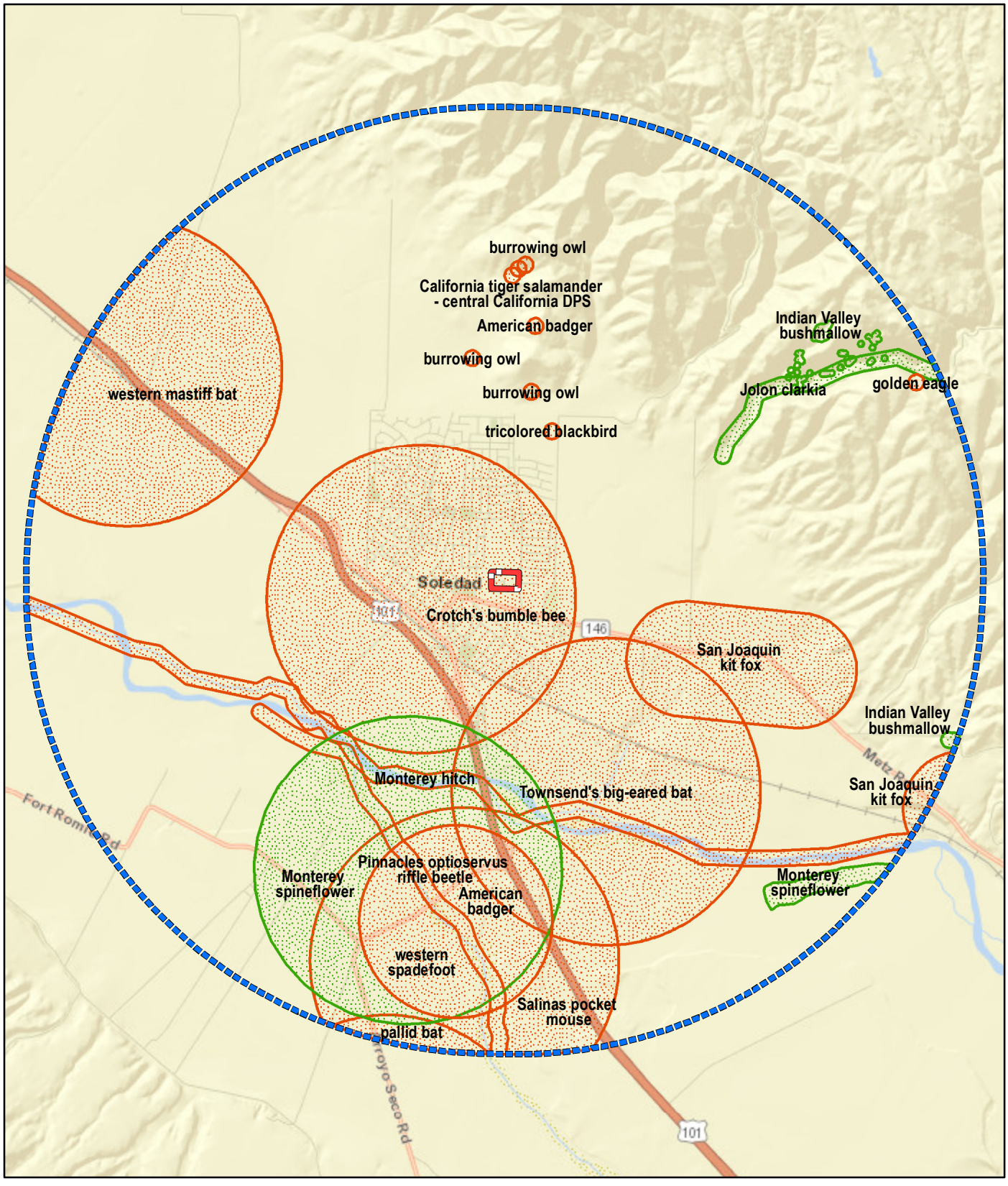
Special-Status Plant Species. Special-status plant species were evaluated for probability to occur on the project site. No special-status plants were observed during the biological survey. Suitable habitat for special-status plant species recorded as occurring within the project vicinity was not found.

Special-Status Wildlife Species. Special-status wildlife species with the likelihood to occur on the project site include the western mastiff bat (*Eumops perotis californicus*) and nesting birds. These species are addressed below.

Special-Status Bats. Bats were not observed during the reconnaissance-level biological field survey. However, trees and/or buildings or structures on the project site could provide roosting habitat for special-status bat species known to occur in the vicinity of the project site, including the California Species of Special Concern western mastiff bat.

Observations of special-status bats have been recorded within three miles of the project parcel (western mastiff bat (Occurrence No. 72) and pallid bat (Occurrence No. 212)). All occurrences were documented over 50 years ago; however, populations are presumed extant. The pallid bat is not expected to occur within the project site due to the absence of rocky outcrops.

Western mastiff bat has a low probability of occurrence on the site due to marginal habitat features located on the property. The western mastiff bat inhabits a wide variety of habitats including grasslands, woodlands, forests, and urban areas, and roost in cervices in cliffs, trees, or buildings. If present, tree or building removal at the project site could result in the disturbance of roost and/or natal sites occupied by special-status bat species if it were to occur on or adjacent to the project site. Loss or harm to special-status bats is a significant adverse impact. Implementation of the following mitigation measures would reduce this potentially significant impact to less-than-significant.



Source: ESRI 2024, CDFW CNDDB 2024

Figure 6

Special-Status Species within the Project Vicinity

Almond Acres Initial Study

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Mitigation Measures

BIO-1 Special-Status Bat Species. The following measures shall be implemented to avoid loss of or harm to special-status bat species:

1. Prior to issuance of tree removal, demolition, and grading permits, approximately 14 days prior to tree removal or any construction activities, a qualified biologist shall conduct a habitat assessment for bats and potential roosting sites in trees or buildings within 50 feet of the construction easement. These surveys shall include a visual inspection of potential roosting features (bats need not be present) and a search for presence of guano within the project site, construction access routes, and 50 feet around these areas. Cavities, crevices, exfoliating bark, and bark fissures that could provide suitable potential nest or roost habitat for bats shall be surveyed. Assumptions can be made on what species is present due to observed visual characteristics along with habitat use, or the bats can be identified to the species level with the use of a bat echolocation detector such as an "Anabat" unit. Potential roosting features found during the survey shall be flagged or marked.

2. If no roosting sites or bats are found, a letter report shall be prepared by the biologist and submitted to City of Soledad, where it shall be kept on file, and no further measures are required.

3. If bats or roosting sites are found, bats shall not be disturbed without specific notice to and consultation with California Department of Fish and Wildlife.

4. The nursery season is typically from May 1 to October 1. If bats are found roosting outside of the nursery season, California Department of Fish and Wildlife shall be consulted prior to any eviction or other action. If avoidance or postponement is not feasible, a Bat Eviction Plan shall be submitted to California Department of Fish and Wildlife for written approval prior to project implementation. A request to evict bats from a roost includes details for excluding bats from the roost site and monitoring to ensure that all bats have exited the roost prior to the start of activity and are unable to re-enter the roost until activity is completed. Any bat eviction shall be timed to avoid lactation and young-rearing. If bats are found roosting during the nursery season, they shall be monitored to determine if the roost site is a maternal roost. This could occur by either visual inspection of the roost bat pups, if possible, or by monitoring the roost after the adults leave for the night to listen for bat pups. Because bat pups cannot leave the roost until they are mature enough, eviction of a maternal roost cannot occur during the nursery season. Therefore, if a maternal roost is present, a 50-foot buffer zone (or different size if determined in consultation with the California Department of Fish and Wildlife) shall be established around the roosting site within which no construction activities including tree removal or structure disturbance shall occur until after the nursery season.

BIO-2 Worker Environmental Awareness Program. Prior to the project commencement, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of special-status species potentially occurring in the project vicinity, including, but not limited to roosting bats and nesting birds. Their habitats, general measures that are being implemented to conserve species as they relate to the project, and the boundaries within which construction activities will occur will be explained. Informational handouts with photographs clearly illustrating the species' appearances shall be used in the training session. All new construction personnel shall undergo this mandatory environmental awareness training. The project applicant shall document evidence of completion of this training by a letter report prepared by the biologist and submitted to the City of Soledad, where it will be kept on file.

Nesting Birds. Protected nesting bird species have the potential to nest on open ground, in any type of vegetation, including trees, or in on-site buildings during the nesting bird season (January 15 through September 15). The project site and surrounding properties contain a several trees, shrubs, and building crevices that may be suitable for nesting. Construction activities can impact nesting birds protected under the federal Migratory Bird Treaty Act and California Fish and Game Code, should nesting birds be present during construction. If protected bird species are nesting adjacent to the project site during the bird nesting season, then noise-generating construction activities could result in the loss of fertile eggs, nestlings, or otherwise lead to the abandonment of nests. Implementation of mitigation measure BIO-2, requiring a training session on special-status species potentially present on the construction site for all personnel, and mitigation measure BIO-3 provided below would reduce the potential impact to nesting birds to a less-than-significant level.

Mitigation Measure

BIO-3 Nesting Birds. To avoid impacts to nesting birds during the nesting season (January 15 through September 15), all construction activities should be conducted between September 16 and January 14, which is outside of the bird nesting season. If construction or project-related work is scheduled during the nesting season (February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to September 15 for other raptors), a qualified biologist shall conduct nesting bird surveys.

1. Two surveys for active bird nests will occur within 14 days prior to start of ground disturbance, with the final survey conducted within 48 hours prior to ground disturbance. Appropriate minimum survey radii surrounding each work area are typically 250 feet for passerines, 500 feet for smaller raptors, and 1,000 feet for larger raptors. Surveys will be conducted at the appropriate times of day to observe nesting activities. Locations off the site to which access is not available may be surveyed from within the site or from public areas. If no nesting birds are found, a letter report confirming absence will be prepared and submitted to the City of Soledad and no further mitigation is required.

2. If the qualified biologist documents active nests within the project site or in nearby surrounding areas, an appropriate buffer between each nest and active construction shall be established. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist shall conduct baseline monitoring of each nest to characterize "normal" bird behavior and establish a buffer distance, which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if birds show signs of unusual or distressed behavior (e.g., defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist or construction foreman shall have the authority to cease all construction work in the area until the young have fledged and the nest is no longer active. Once the absence of nesting birds has been confirmed, a letter report will be prepared and submitted to the City of Soledad.

b. **Sensitive Natural Communities.** Sensitive natural communities are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. CDFW's *List of California Terrestrial Natural Communities* is based on the best available information, and indicates which natural communities are considered sensitive (CDFW 2024c). There are no sensitive natural communities within the project site.

c. **Wetlands and Waters of the U.S**. A review of the National Wetland Inventory (NWI) online database was conducted to identify potential jurisdictional aquatic features on or adjacent to the project site (USFWS 2024b). The results show an excavated palustrine freshwater emergent wetland located along Orchard Lane, outside of the project site (PEM1Cx) (USFWS 2024b). No freshwater emergent wetland was observed during the site visit. Two stormwater swales have been constructed on either side of Orchard Lane; these aquatic features are heavily maintained stormwater collection swales. The proposed project will not impact the stormwater swales. No further analysis is required for this aquatic feature.

d. **Wildlife Movement.** Wildlife movement corridors provide connectivity between habitat areas, enhancing processes like nutrient flow, gene flow, seasonal migration, pollination, and predator-prey relationships. Increasing connectivity is a critical strategy for addressing habitat loss and fragmentation, a top threat to biodiversity.

The project site is not located within any previously defined essential connectivity areas as mapped by the *California Essential Habitat Connectivity Project* and is also adjacent to developed residential areas (CDFW 2024c). The project site is not likely to facilitate major wildlife movement because it is an infill site that is surrounded by urban development. As such, the proposed project would have a less than significant impact on wildlife movement.

e. **Local Biological Resource Policies/Ordinances**. Measures to protect sensitive biological resources within Soledad are identified in the General Plan. General Plan Policies C/OS-10, C/OS-11, and C/OS-12 regulate plant, animal and related habitat protection, specifically to support state and federal laws and policies to preserve special-status species, identify significant natural and open space resources prior to development, and require developers to use native and compatible non-native species, especially drought-tolerant species, when landscaping.

City of Soledad Municipal Code: The proposed project will not conflict with any local ordinances protecting biological resources such as a tree preservation ordinance.

The project site contains heavily disturbed soils, with non-native grasses, ruderal (weedy) plants, and ornamental trees. Implementation of the biological resources mitigation measures described above will mitigate potential adverse effects to special-status species consistent with the intent of the referenced General Plan policies. The City of Soledad does not have a tree removal ordinance for trees on private property.

f. There are no designated critical habitat boundaries, habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans applicable to the proposed project site (CDFW 2024c). The proposed project would not conflict with local regulations related to biological resources.

5. CULTURAL RESOURCES

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a *historical resource* pursuant to section 15064.5?	☐	☐	☐	☒
b.	Cause a substantial adverse change in the significance of a *unique archaeological resource* pursuant to section 15064.5?	☐	☒	☐	☐
c.	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Comments:

An archival database search was conducted through the Central California Information Center (12818I), of the California Historical Resources Information System affiliated with the State of California Office of Historic Preservation in Sacramento. The Central California Information Center was provided with a location map and coordinates of the project area, with a request for any cultural resources within a one-quarter mile radius of the project site boundary. These cultural resources include aboveground historic structures, belowground historic archaeological resources, and unique archaeological resources.

a-b. **Aboveground Historic Resources**. The project site contains three existing homes fronting Orchard Lane, all of which are proposed for removal. Archaeological Resource Management conducted a historical evaluation of one of the existing homes (315 Orchard Lane) with potential to have historical significance (refer to Appendix D). The home is not currently listed, nor does it appear to be eligible for listing, on the National Register of Historic Places, the California Register of Historical Resources, or locally in the City of Soledad. Therefore, the project would not cause a substantial adverse change in the significance of a historical aboveground resource pursuant to section 15064.5.

Underground Historic and Unique Archaeological Resources. The results of the Central California Information Center request indicated no known resources were located within the project area or within a one-quarter mile radius.

On October 22, 2024, EMC Planning Group archaeologist, Vanessa Potter, MA, RPA, visited the property and found no cultural resources during the pedestrian survey. However, it is a possibility that unknown, buried significant historic archaeological resources and/or unique archaeological resources could be present at the project site. Such resources, if present, could be damaged or destroyed by ground disturbing construction activities associated with the project, which would be a significant impact.

Implementation of the following mitigation measure would ensure that potential impacts would be less than significant.

Mitigation Measure

CUL-1 In the event that archaeological resources are encountered during ground disturbing activities, the contractor shall temporarily halt or divert excavations within a 50 meter (165 feet) of the find until it can be evaluated. All potentially significant archaeological deposits shall be evaluated to demonstrate whether the resource is eligible for inclusion on the California Register of Historic Resources, even if discovered during construction. If archaeological deposits are encountered, they will be evaluated and mitigated simultaneously in the timeliest manner practicable, allowing for recovery of materials and data by standard archaeological procedures. For prehistoric archaeological sites, this data recovery involves the hand-excavated recovery and non-destructive analysis of a small sample of the deposit. Historic resources shall also be sampled through hand excavation, though architectural features may require careful mechanical exposure and hand excavation.

Any previously undiscovered resources found during construction activities shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance by a qualified Archaeologist. Significant cultural resources consist of but are not limited to stone, bone, glass, ceramics, fossils, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites.

c. It is possible that ground disturbing activities associated with the proposed project could damage or destroy previously undiscovered Native American human remains. Disturbance of Native American human remains would be a significant impact. The following mitigation would reduce this potential impact to a less-than significant level.

Mitigation Measure

CUL-2 In the event that human remains (or remains that may be human) are discovered at the project site, Public Resource Code Section 5097.98 must be followed. All grading or earthmoving activities shall immediately stop within 50 meters (165 feet) of the find. The Monterey County Coroner will be notified immediately, and the coroner shall be permitted to examine the remains as required by California Health and Safety Code Section 7050.5(b).

Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If human remains are determined as those of Native American origin, the project proponent shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the NAHC (Public Resource Code [PRC] § 5097). The coroner shall contact the Native American Heritage Commission (NAHC) to determine the most likely descendant(s) (MLD). The MLD shall complete his or her inspection and make

recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD will determine the most appropriate means of treating the human remains and associated grave artifacts, and shall oversee the disposition of the remains. In the event the NAHC is unable to identify an MLD or the MLD fails to make a recommendation within 48 hours after being granted access to the site, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity within the project area in a location not subject to further subsurface disturbance if: a) the Native American Heritage Commission is unable to identify the MLD or the MLD failed to make a recommendation within 48 hours after being allowed access to the site; b) the descendent identified fails to make a recommendation; or c) the landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

6. ENERGY

Would the project:

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

Comments:

a. Energy impacts are assessed based on the proposed project energy demand profile and on its relationship to state energy efficiency regulations. The primary sources of energy consumption will be fuel use in vehicles traveling to and from the project site, as well as natural gas and electricity used in buildings. Each of these energy consumption sources is described below.

Projected Energy Demand

Transportation Fuel. The California Air Resources Board 2021 Emissions Factor model (EMFAC), version 1.0.2, was developed as a means to estimate emissions from on-road including cars, trucks, and buses in California, and to support related state regulatory and air quality planning efforts to meet the Federal Highway Administration's transportation planning requirements. As detailed in the EMFAC results in Appendix E, total annual fuel demand is projected to be approximately 80,228 gallons of gasoline and diesel.

Electricity. The California Energy Commission Energy Consumption Data Management System reports that in 2022, total electricity consumption in Monterey County was 2,490,468,746 kilowatt-hours (kWh). Table 5.11. Operational Energy Consumption – Electricity, in the CalEEMod results included in Appendix B, shows that projected annual electricity demand from the project would be 371,339 kWh. The project demand is equivalent to about 0.01 percent of the countywide 2022 total energy demand.

Natural Gas. According to the California Energy Commission Energy Consumption Data Management System, in 2022, total natural gas consumption in Monterey County was 111,550,639 therms. Table 5.11. Operational Energy Consumption – Natural Gas, in the CalEEMod results included in Appendix B, shows that projected natural gas demand from the project would be about 2,516,028,000 BTU per year or approximately 25,160 therms per year or 0.02 percent of the countywide demand in 2022.

Regulatory Requirements

A multitude of state regulations and legislative acts are aimed at improving vehicle fuel efficiency, energy efficiency, and enhancing energy conservation. For example, the Pavley I standards focus on transportation fuel efficiency. The gradual increased use of electric cars powered with cleaner electricity will reduce consumption of fossil fuel. VMT are expected to decline with the continuing implementation of Senate Bill 743, resulting in less vehicle travel and less fuel consumption. In the renewable energy use sector, representative legislation for the use of renewable energy includes, but is not limited to, Senate Bill 350 and Executive Order B-16-12. In the building energy use sector, representative legislation and standards for reducing natural gas and electricity consumption include, but are not limited to, Assembly Bill 2021, CALGreen, and the California Building Standards Code.

The California Building Standards Code is enforceable at the project level. The California Energy Code (California Code of Regulations, Title 24, Part 6), which is incorporated into the California Building Standards Code, was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The California Energy Code is updated every three years by the California Energy Commission as the Building Energy Efficiency Standards to allow consideration and possible incorporation of new energy efficiency technologies and construction methods. California's energy code is specifically designed to reduce wasteful and unnecessary energy consumption in newly constructed and existing buildings, including residential buildings. For residential uses of the type proposed, the standards require a suite of building energy efficiency requirements, combined with on-site renewable energy production, that ensure such uses have net zero electricity energy demand.

The Green Building Standards Code (also known as CALGreen), which requires all new buildings in the state to be more energy efficient and environmentally responsible, was most recently updated in July 2022. These comprehensive regulations are intended to achieve major reductions in interior and exterior building energy consumption.

A project could be considered to result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption of energy if its energy demand is extraordinary relative to common land use types, its gross energy demand is excessive relative to total demand in Monterey County, and/or it fails to comply with energy efficiency/conservation regulations that are within the applicant's control. The project is a common land use type that is consistent with the general plan use proposed for the site. From a land use perspective, affordable housing development can result in lower VMT and lower transportation fuel demand – which is the case for the multifamily component of the project.

The project energy demand would not be excessive relative to total demand and residential development is not an inherent source of wasteful energy demand. The project applicant would be required to comply with state regulatory requirements for reducing building energy demand found in Title 24 of the current California Building Code, and with CALGreen requirements as described above. The proposed project would consume energy, but it would not be inefficient, wasteful, or unnecessary. Therefore, the impact would be less than significant

b. The California Building Standards Code requires the proposed project be built to the Building Energy Efficiency Standards in effect at the time building permits are issued. By incorporating energy efficiency and renewable energy measures per the Building Energy Efficiency Standards, and incorporating green building features per the CALGreen standards. The project would comply with existing state and local energy standards and would not conflict with or obstruct a state or local plan for energy efficiency.

7. GEOLOGY AND SOILS

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	(1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
	(2) Strong seismic ground shaking?	☐	☐	☒	☐
	(3) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
	(4) Landslides?	☐	☐	☐	☒
b.	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d.	Be located on expansive soil, creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Comments:

The *Geotechnical Engineering Report Almond Acres Residential Development 311 Orchard Lane APN 022-281-055 Soledad, California* ("geotechnical report") was prepared for the proposed project by Earth Systems Pacific dated March 22, 2024. Much of the information in this section is from the geotechnical report unless otherwise noted. The full geotechnical report can be found in Appendix F.

a. **Rupture of Earthquake Fault**. The project site is located within a seismically active region, but is outside of an Alquist-Priolo Earthquake Fault Zone. The site is located more than five miles from other surrounding faults (e.g., site is approximately 5.8 miles northeast of the Rinconada/Reliz fault and approximately 12.4 miles northeast of the Monterey Bay-Tularcitos fault) (Earth Systems Pacific 2024). Therefore, no impacts associated with fault rupture would occur.

Ground Shaking. It is reasonable to assume that the proposed buildings will be subjected to at least one moderate to severe earthquake during their lifetime; therefore, strong shaking of the site is likely to occur (p. 9). Consistent with General Plan Policy HZ-6, the applicant prepared a geotechnical report, which states that the project should be designed in accordance with the seismic design provisions of the latest California Building Code. This requirement by the geotechnical report is consistent with the City Municipal Code Chapter 15.08, Adoption of California Building Code, and General Plan Policy HZ-5, which states that all new development shall satisfy the applicable requirements of the (now titled) California Building Code.

Required compliance with the seismic design provisions of the California Building Code would reduce geologic hazard risk potential for the project to a less-than-significant level.

Liquefaction. The project site has low liquefaction susceptibility and, therefore, liquefaction potential was not evaluated (Earth Systems Pacific 2024, p. 7). Implementation of the project is not expected to directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving liquefaction.

Landslides. The project site is mapped in a low earthquake induced landslide hazard susceptibility zone (Earth Systems Pacific 2024); additionally, the site itself is relatively flat. Implementation of the project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

b. The project site is located within an area of low erosion potential hazard (Monterey County 2024). Site preparation and construction activities would expose soil surfaces to erosion. However, construction activities must be conducted consistent with the regulations in City Municipal Code Section 13.52.080, which requires the implementation of temporary best management practices for erosion and sediment control during construction activities. This section states that any construction or demolition activity that results in a land disturbance of equal to or greater than one acre (such as the proposed project) requires the preparation of a stormwater pollution prevention plan and compliance with the statewide construction general permit prior to obtaining a grading or building permit. A stormwater pollution prevention plan must include a construction phase erosion control plan that incorporates best management practices to reduce impacts on water quality.

Storm water control measures must also be integrated into the project design to manage storm water in a manner that reduces its potential to create erosion in downstream water bodies under post-project development conditions. Associated regulations are included in City Municipal Code Section 13.52.085. Its intent, in part, is to regulate stormwater runoff from development sites by controlling and minimizing stormwater runoff, soil erosion, and nonpoint source pollution. This is achieved by designing sites that utilize on-site stormwater treatment techniques, minimize soil compaction and imperviousness, incorporate vegetation and buffer zones, and other measures.

Required compliance with the abovementioned uniformly applied regulations would minimize risks associated with soil erosion.

c. The geotechnical report identifies loose sand in the upper two to three feet of soil at the site and considers this the primary geotechnical concern (p. 7). The applicant will be required to design the project consistent with the recommendations in the geotechnical report, which are designed to minimize risk from unstable soils.

d. The surface to near surface soils have low shrink/swell potential (Earth Systems Pacific 2024, p. 8). Therefore, the associated risk to project improvements is low.

e. The project would connect into the City's existing sanitary sewer system located in Orchard Lane.

f. No known paleontological resources are within the project site; however, it is possible that paleontological resources could be accidentally discovered during construction activities. Directly or indirectly destroying a unique paleontological site is considered a significant, adverse environmental impact. Implementation of the following mitigation measure would ensure this potential impact would be less than significant.

Mitigation Measure

GEO-1 The following language shall be included on all grading permits: "If paleontological resources are discovered during demolition and earthmoving activities, work shall stop within 100 feet of the find until a qualified paleontologist can assess if the find is unique and, if necessary, develop appropriate treatment measures in consultation with the City of Soledad Community and Economic Development Department."

8. GREENHOUSE GAS EMISSIONS

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	☒

Comments:

a. The City of Soledad has not adopted a plan for reducing greenhouse gas emissions (GHG) or a threshold of significance for GHG emissions, nor has the air district developed or adopted a threshold of significance for GHGs from land use development projects, such as the proposed project. In the absence of a local qualified plan, lead agencies may defer to plans and thresholds of other agencies. In lieu of an available qualified plan, guidance from the San Luis Obispo County Air Pollution Control District (SLOAPCD) was utilized for evaluating project impacts.

The SLOAPCD released its *CEQA Greenhouse Gas Thresholds & Guidance for the San Luis Obispo County Air Pollution Control District's 2012 CEQA Air Quality Handbook and Related Guidance on Use of Screening Tool, CalEEMod, and Local Reductions/Sequestration Projects & Offset Mix Calculator* in 2023. The guidance includes substantial evidence for establishing an efficiency-based threshold of significance for the year 2028 and for subsequent individual years to the year 2045. The threshold year of 2045 correlates to the most recently adopted statewide GHG emissions reduction target identified in Assembly Bill 1279. That bill sets a net zero GHG emissions reduction target for 2045. Table 2 in the SLOAPCD guidance identifies a service population threshold of significance of 3.30 metric tons of carbon dioxide equivalent (MT CO_2e) per service population per year for the year of 2028, which is assumed to be the buildout year for the project (San Luis Obispo County Air Pollution Control District 2023, Page 5). Service population is the sum of the number of residents and employees that would be generated by a project. Projects with annual GHG emissions that are forecast to be below the service population threshold are assumed to have a less-than-significant GHG impact.

GHG emissions from construction and operation of the proposed project were estimated using CalEEMod version 2022.1. Projected emissions are summarized in Table 4, Projected Annual GHG Emissions. The units are in metric tons of carbon dioxide equivalent (MT CO2e). The detailed CalEEMod modeling results are included as Appendix B.

Table 4 Projected Annual GHG Emissions

Emissions Sources	GHG Emissions (MT CO_2e)
Mobile	627.95
Area	86.35
Energy	168.57
Water	5.22
Waste	19.36
Refrigerants	0.14
Amortized Construction	12.95
Total	920.54

SOURCE: EMC Planning Group 2024, CalEEMod Version 2022.1

Construction activity, including operation of off-road construction equipment, would generate approximately 388.64 MT CO_2e per year. To account for the contribution of construction emissions to the project's annual emissions profile, construction emissions are amortized over an assumed 30-year operational timeframe; amortized annual emissions equal 12.95 MT CO_2e per year. The total annual operational GHG emissions are forecast at 908.87 MT CO_2e. Transportation (mobile) sources dominate the project emissions inventory at 627.95 MT CO_2e per year, followed by energy at 168.57 MT CO_2e. Area sources, solid waste sources, water, and refrigerants account for the 111.07 MT CO_2e balance of emissions. The combined amortized construction and operational emissions are 920.54 MT CO_2e per year.

The project would have a service population of 308 (67 residential units x 4.6 persons per household).

With projected annual operational GHG emissions at 920.54 MT CO_2e and a service population of 308, total project emissions would equal 2.99 MT CO_2e per service population per year. Since the annual emissions would be below the threshold of significance, the project would have a less-than-significant GHG emissions impact.

b. As described in item "a" above, neither the City nor the air district has adopted a plan for reducing GHG emissions. The SLOAPCD GHG analysis guidance, which constitutes a plan for reducing GHG emissions, was used as reference for assessing consistency with such a plan. Because the project would have a less-than-significant impact from generating GHG emissions based on the guidance in the SLOAPCD guidance, it would not conflict with the applicable GHG reduction plan.

9. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment?	☐	☐	☐	☒
e.	For a project located within an airport land-use plan or, where such a plan has not been adopted, within two miles of a public airport or a public-use airport, result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Comments:

a. Residential uses typically do not constitute a notable risk from hazardous materials. Household hazardous materials are limited in type, use volume and risk to community health and safety. Household hazardous wastes are readily and safety disposable via programs and facilities provided by local waste management agencies. Therefore, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b. The three existing homes fronting Orchard Lane are to be demolished as a result of the project. Buildings built between 1930 and 1950 commonly contain asbestos or lead-based

paint. The home at 315 Orchard Lane was built in 1950. Therefore, there is a possibility that asbestos or lead-based paint were used and are present in the structure. Demolition of the home could release one or both of these hazardous materials into the environment, which would be a significant environmental impact. The following mitigation is required to ensure the potentially significant impact is reduced to less than significant.

Mitigation Measure

HAZ-1 Asbestos and Lead-Based Paint Survey Report. The project developer shall conduct an Asbestos and Lead-Based Paint Survey Report on the existing single-family home at 315 Orchard Lane prior to its demolition to identify the potential presence of asbestos and lead-based paint. The survey report shall be submitted for review and approval by the City Building and Safety Division prior to issuance of a demolition permit. The survey report shall include, but is not limited to:

- Visual inspection;
- Collection of samples;
- Testing of samples;
- Consolidating data and findings into a written report; and
- Recommendations provided, as necessary.

If no asbestos or lead-based paint is detected, demolition of the single-family home may commence with no additional precautions. If asbestos and/or lead-based paint is detected, the recommendations provided within the survey report shall be implemented.

c. San Vicente and Gabilan Elementary Schools are both located adjacent to the project site (refer back to Figure 2, Aerial Photograph). However, the proposed residential use would not result in emitting hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Therefore, there would be no impact.

d. The following lists were reviewed:

- Hazardous Materials Waste and Substances Sites from the Department of Toxic Substances Control EnviroStor Database (California Department of Toxic Substances Control 2024);
- Leaking Underground Storage Tank Sites from the State Water Board's GeoTracker Database (State Water Resources Board 2024);
- Solid Waste Disposal Sites Identified by Water Board with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit (California Environmental Protection Agency 2024a);

- "Active" Cease and Desist Order and Cleanup and Abatement Orders from Water Board (California Environmental Protection Agency 2024b); and
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by the Department of Toxic Substances Control (California Environmental Protection Agency 2024c).

The project site is not located on a site included on any of these lists, and as a result, would not create a significant hazard to the public or the environment.

e. The nearest airport is the Mesa Del Rey Airport located in King City more than 15 miles southeast. Therefore, the project would not result in a safety hazard or excessive noise for people residing or working in the project area.

f. Emergency evacuation routes are present throughout Monterey County. U.S. Highway 101 is the nearest evacuation route within or near Soledad. This route is considered "Pre-designated Emergency Evacuation Routes" and may be used when necessary (Monterey County 2008, p. 4.13-6). The project site is approximately 0.70 miles northeast of U.S. Highway 101. The proposed project would not physically interfere with the highway's emergency evacuation function, nor increase traffic volume on the highway such that emergency evacuation function would be compromised.

g. The project site is located more than one mile west of the nearest fire hazard severity zones (CalFire 2024). Therefore, the project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires

10. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(1) Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
(3) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
(4) Impede or redirect flood flows?	☐	☐	☐	☒
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Comments:

a. **Construction Water Quality Impacts**. Construction activities would involve soil disturbance associated with site preparation, grading, and excavation activities. Delivery, handling and storage of construction materials and wastes; equipment refueling; and construction equipment use and maintenance could result in spills of oil, grease, or related pollutants. Improper handling, storage, disposal of fuels and materials or improper cleaning of machinery also are potential sources of water pollution associated with construction activities. These activities have the potential to cause water quality

degradation if eroded soil or other pollutants are carried by storm water into storm water drainage systems and ultimately into downstream water bodies. Construction phase water quality degradation can damage aquatic ecosystem health, and deposition of sediment within surface water and creek channels can adversely modify their function while causing additional erosion that exacerbates water quality degradation.

Stormwater discharge for development in the city is regulated by the State Water Resources Control Board Water Quality Order No. 2013-0001-DWQ National Pollutant Discharge Elimination System (NPDES) General Permit. The NPDES General Permit for storm water and construction site runoff is designed to reduce discharge of pollutants in storm water to the maximum extent practicable to protect water quality and beneficial uses of surface waters. Because the project would disturb more than one acre of soil, the preparation and implementation of a stormwater pollution prevention plan is required by the developer. A stormwater pollution prevention plan identifies best management practices (bio-retention ponds, filters, bio-filtration swales, etc.) consistent with the requirements of the NPDES and City Municipal Code Section 13.52.080, During Construction Stormwater Management, which must be implemented during construction. The practices are intended to reduce potential impacts on surface water by reducing the potential for sediment or other water quality contaminants to be discharged directly or indirectly into a surface water body and to ensure that urban runoff contaminants and sediment are minimized during site preparation and construction periods. The regulations also states that proof of compliance with the NPDES General Permit is required prior to obtaining a grading or building permit.

Required compliance with the NPDES requirements would ensure that applicable water quality standards are met and that water quality impacts from construction activities will be less than significant.

Post-Construction (Operational) Water Quality Impacts. The proposed project would alter existing storm water drainage conditions by replacing undeveloped land with impervious surfaces such as building rooftops and roadway pavement. The change in surface conditions would result in a substantial increase in storm water runoff relative to existing conditions where a significant portion of storm water percolates though exposed soil back to groundwater. Increases in the rate or volume of storm water delivered into receiving waters can cause erosion of downstream drainage courses. Urban development can also introduce pollutants such as oil and grease, as well as natural and non-natural debris that can be carried in storm water runoff, directly or indirectly to receiving waters. Contaminated storm water delivered directly or indirectly into a regulated storm drainage system and discharged into a surface water body can degrade water quality.

In 2013, the Central Coast Regional Water Quality Control Board adopted post-construction storm water management requirements. The primary objective of the requirements is to ensure that land development projects reduce pollutant discharges to the maximum extent practicable and to prevent storm water discharges from causing or contributing to a violation of receiving water quality standards. Regulated projects, such

as the proposed project, include all new development or redevelopment projects that create and/or replace more than 2,500 square feet of impervious surface. Such projects must implement measures to reduce pollutant discharges and prevent storm water discharges from causing or contributing to a violation of water quality standards.

The project developer will be required to show how stormwater would be retained onsite or how the stormwater would be treated using design measures before being discharged from the site, consistent with City Municipal Code Chapter 13.52, Stormwater Quality. Best management practices will be required in order for the project to meet the post-construction storm water management requirements of the Central Coast Regional Water Quality Control Board. City Municipal Code Section 13.52.085(F)(2) states that regulated projects must prepare and submit to the City a stormwater control plan demonstrating that the project complies with each applicable set of post-construction requirements. Stormwater control plans typically also include measures that ensure the volume and rate of storm water discharge from developed areas would not exceed pre-project conditions (the proposed bio-retention pond is a fundamental feature for meeting this standard). This performance standard is designed in significant part to reduce erosion of downstream water features into which site storm water is discharged.

As indicated above, the stormwater control plan is subject to review by the City to ensure that the development is being designed to incorporate appropriate water quality control features and that the control measures meet the required performance standards. Required compliance with post-construction water quality performance standards would ensure that applicable water quality standards would be met and the project's post-construction impact on water quality would be less than significant.

b. The City of Soledad is located within the Salinas Valley Groundwater Basin; more specifically, the Forebay Aquifer Subbasin, from which the City of Soledad extracts water for municipal supply. As discussed in the *Salinas Valley Groundwater Basin Forebay Aquifer Subbasin Groundwater Sustainability Plan* (January 2022), the Salinas Valley Basin Groundwater Sustainability Agency coordinates with jurisdictions within Monterey County (in this case, the City of Soledad) on general plans and land use planning/zoning as needed when preparing the groundwater sustainability plan. The project site is designated as Single-Family Residential in the General Plan; therefore, the analysis in the groundwater sustainability plan regarding groundwater demand projections would have included demand from the site given that the sustainability plan, in part, considers municipal demand based on the general plans of local jurisdictions.

The Forebay Aquifer Subbasin is estimated to have an annual sustainable yield of 148,000 acre-feet per year. Total water use was approximately 146,800 acre-feet per year in water year 2022 (Salinas Valley Basin Groundwater Sustainability Agency, no date), resulting in a remaining annual sustainable yield of 1,200 acre-feet.

The *City of Soledad Water System Master Plan Report* indicates that the water demand factor for single-family residential land uses is 2,708 gallons per day per acre and the water demand factor for "other residential" land uses (e.g., multi-family residential) is 1,830

gallons per day per acre. Using these water demand factors, the proposed project would demand approximately 15,074 gallons of water per day (14,379 gallons of water per day for single-family residences + 695 gallons of water per day for multi-family residences), or approximately 17 acre-feet per year.

Consistent with General Plan Policy S-7 and the required stormwater control plan mentioned previously, the proposed project includes a bio-retention pond located on Parcel C at the northwestern end of the site for the purpose of retaining storm water and treating it for water quality purposes. This component of the project will function to recharge groundwater.

Given the considerations above, the project would not interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

c. **Erosion**. Refer to the response under checklist question "a" shown above, as well as the response under checklist question "b" in Section 7.0 Geology and Soils.

Flooding and Runoff. The proposed project would alter the existing drainage pattern of the site as it would replace undeveloped, pervious areas of the site with impervious surfaces. Increases in impervious surfaces on a site can result in an increase in stormwater runoff that could result in the potential for flooding on- or off-site.

As previously discussed, regulated projects (such as the proposed project) must implement post-construction best management practices pursuant to NPDES requirements as enforced through regulations in the City Municipal Code. The developer will be required to prepare a stormwater control plan that will identify best management practices for managing storm water to minimize potential for on-site and off-site flooding. The project plans show a bio-retention facility with underground chambers on Parcel C, which would be sized to retain greater than 95th percentile rain events and runoff to pre-development levels for a 100-year storm event. Stormwater would percolate back to groundwater and metered to be released at a rate no greater than occurs under existing conditions on the site.

City Municipal Code Section 14.06.090, Storm Drain Facilities Development Impact Fees, requires payment of storm drainage fees, which helps finance improvements to the City's storm drain system to accommodate increases in stormwater flows. The applicant will be required to pay the fee impact fee to offset the project's cumulative impact on the City's storm drain facilities.

Implementation of the abovementioned stormwater control measures will minimize the potential for the project to increase the volume and rate of stormwater discharge relative to existing conditions such that on-site and off-site flooding would be avoided, nor would the capacity of existing or planned stormwater drainage systems be exceeded. Impacts would, therefore, be less than significant.

Impede Flood Flows. Municipal Code Chapter 15.30, Floodplain Management, states that a flood hazard area is an area within a floodplain subject to a one-percent or greater chance of flooding, or an area designated as a flood hazard area on the community's flood hazard map (i.e., General Plan Figure IX-2). The majority of the project site is not located within a Federal Emergency Management Agency (FEMA) flood hazard zone. The southern portion of the site is located within Zone X (shaded), which is an area between the limits of the base flood and the 0.2 percent annual chance (or 500-year) flood (FEMA 2024). The project site is not located within a 100-year flood hazard area and is not subject to floodplain regulations in City Municipal Code Chapter 15.30, which in part, are designed to ensure new development does not impeded flood flows. Implementation of the project would not impede or redirect flood flows.

d. The City of Soledad is not located near the coast nor any large body of water. Therefore, the project is not located in tsunami or seiche zones. The southern portion of the project site is located within FEMA Flood Zone X (refer to the discussion under checklist question "c - Flood Flows"), which is the 500-year flood zone. The project would not risk release of pollutants due to inundation.

e. As discussed under checklist question "b," the city is located within the Forebay Aquifer Subbasin. The Salinas Valley Groundwater Basin Groundwater Sustainability Agency adopted the *Salinas Valley Groundwater Basin Forebay Aquifer Subbasin Groundwater Sustainability Plan* in January 2022 whose purpose is to outline how the Salinas Valley Basin Groundwater Sustainability Agency and Arroyo Seco Groundwater Sustainability Agency will address the declining groundwater conditions and achieve groundwater sustainability in the subbasin. Implementation of the groundwater sustainability plan is not anticipated to affect water supply assumptions for jurisdictions within the subbasin. The groundwater sustainability plan includes sufficient management actions and projects to keep groundwater extraction within the sustainable yield, should such projects need to be implemented.

The project water demand would be partially offset through groundwater recharge from the planned on-site storm water retention facility. Further, the project would not interfere with implementation of groundwater management projects identified in the sustainability plan that are designed to bring supply and demand into equilibrium.

The project would not conflict with the sustainable groundwater management plan.

11. LAND USE AND PLANNING

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Physically divide an established community?	☐	☐	☐	☒
b.	Cause any significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Comments:

a. The proposed project would develop a site considered an infill parcel that is surrounded by other urban development. Therefore, the project would not physically divide an established community.

b. The various environmental topics in this initial study address applicable land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating environmental effects. This initial study shows that for those environmental topics, there are either no impacts, less than significant impacts, or significant impacts that can be mitigated to a less-than-significant level. Therefore, the project would not create significant environmental impacts due to conflicts with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

12. MINERAL RESOURCES

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Result in loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land-use plan?	☐	☐	☐	☒

Comments:

a-b. According to the U.S. Geological Survey's Mineral Resources Online Spatial Data, there are no mineral resources within or surrounding the City of Soledad. The nearest resources are located approximately two miles northeast of the site at the Soledad Quarry (U.S. Geological Survey 2024). Therefore, implementation of the proposed project would not result mineral resources impacts.

13. NOISE

Would the project result in:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in applicable standards of other agencies?	☐	☒	☐	☐
b.	Generation of excessive ground-borne vibration or ground borne noise levels?	☐	☐	☒	☐
c.	For a project located within the vicinity of a private airstrip or an airport land-use plan or, where such a plan has not been adopted, within two miles of a public airport or public-use airport, expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Comments:

a. **Temporary Construction Noise**. Construction activities can generate considerable noise, especially during earth-moving activities when heavy equipment is used. During each stage of construction, there would be a different mix of equipment operating. Noise levels would vary by stage and vary within stages based on the amount of equipment in operation, and the location at which the equipment is operating.

Typical ranges of construction noise levels for constructing homes at 50 feet are 81 to 88 dBA. Project construction activities would occur at distances as close as 30 feet from existing off-site noise sensitive receptors (i.e., residences to the north) and to on-site sensitive receptors (mobile homes). Construction activities would result in a temporary ambient noise level increases at these receptors.

City Municipal Code Chapter 9.09, Noise, prohibits construction activities during the hours of 6:00 PM to 7:00 AM. Construction noise is not generally considered to be a significant impact if construction is limited to the daytime hours and best management practices for reducing construction noise are implemented. The following mitigation measure includes such practices. Its implementation would ensure that construction noise impacts are reduced to a less-than-significant level.

Mitigation Measure

N-1 The following best management practices shall be applied during project construction. The management practices shall be included in all construction documents, subject to review and approval by the City Engineer, prior to issuance of a demolition or grading permit:

- Per the City of Soledad Municipal Code, construction activities shall not occur outside the hours of 7:00 AM to 6:00 PM;
- All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source;
- Noise-producing equipment shall not be operating, running, or idling while not in immediate use;
- All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses;
- Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses; and
- Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a noise disturbance coordinator to be identified by the construction contractor. The coordinator shall be responsible for addressing construction noise issues that may be raised by residents or other affected parties. Concerns that cannot be resolved by the coordinator may then be raised with the Community and Economic Development Director, who has final authority to resolve such concerns.

Permanent Noise Levels. The primary noise source in the immediate project area is vehicle travel on Orchard Way, and from playground and other activities at the adjacent schools and at Orchard Lane Park. These sources do not generate significant, continuous noise; ambient noise levels in the area are typical for a residentially-oriented neighborhood.

The proposed project would create new noise sources of noise, with the only notable source being traffic from new vehicle trips. The incremental contribution to traffic noise could significantly impact noise sensitive receptors along Orchard Lane, the roadway onto which all project traffic would be distributed, if that contribution were to result in a noticeable increase in exterior noise levels at the receptors. The sensitive receptors include single-family homes to the north on Orchard Lane, and San Vicente School and the Hartnell College extension school to the south on Orchard Lane.

Increases in traffic noise levels are generally not noticeable when the increase is three decibels (dB) or less. A three dB increase is assumed to occur when a proposed project generates traffic that doubles the existing traffic volume on a roadway onto which that traffic is distributed. The proposed project would generate approximately 640 average daily vehicle trips as noted in the vehicle miles traveled assessment for the project described in Section 17, Transportation. The existing average daily trip volume on the central segment of Orchard Lane between Metz Road and Gabilan Drive is about 5,064 trips (Leopoldo Trujillo, email message, December 18, 2024). Project traffic would constitute about 13 percent of the existing Orchard Lane daily trip volume. Consequently, the project would not result in a noticeable traffic noise increase at the subject noise sensitive uses and the impact would be less than significant.

b. The dominant sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, demolition of major structures or infrastructure, and diesel locomotives and rail-car coupling. The project involves demolition of the existing on-site residences; however, these are not considered major structures. The project also involves pavement breaking in Cedar Lane to install water lines. It is possible that vibration from construction activities, including heavy equipment use and paving activities could be detected at the closest sensitive land uses.

There are no state or federal standards that specifically address construction vibration. Guidance is provided by the *Caltrans Transportation and Construction Vibration Guidance Manual* (California Department of Transportation 2020). The manual provides guidance for determining annoyance potential criteria and damage potential threshold criteria. These criteria are provided below in Table 5, Vibration Annoyance Potential Criteria and Table 6, Vibration Damage Potential Threshold Criteria. Data is presented in terms of peak particle velocity (PPV) in inches per second (in/sec).

Table 5 Vibration Annoyance Potential Criteria

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.10
Severe	2.0	0.40

SOURCE: Caltrans 2020

Table 6 Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile, historic buildings, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	1.0	0.5

SOURCE: Caltrans 2020

Typical vibration levels at distances of 100 feet and 300 feet are summarized in Table 7, Typical Vibration Levels During Construction. These levels would not be expected to exceed any significant threshold levels for annoyance or damage, as provided above in Tables 5 and 6, above. Therefore, construction activities would not result in significant vibration impacts.

Table 7 Typical Vibration Levels During Construction

Equipment	PPV (in/sec)	
	@ 100 Feet	@ 300 Feet
Extremely fragile, historic buildings, ancient monuments	0.011	0.0006
Fragile buildings	0.0004	0.00019
Historic and some old buildings	0.01	0.005
Older residential structures	0.005	0.002
New residential structures	0.3	0.013
Modern industrial/commercial buildings	0.1	0.006

SOURCE: Caltrans 2020

It is not expected that ongoing project operational activities would result in vibration impacts at nearby sensitive uses.

The proposed project will not be a source of significant vibration. The impact is less than significant.

c. The nearest airport is the Mesa Del Rey Airport in King City more than 15 miles southeast. Therefore, the project would have no impact from exposing future residents to excessive noise levels.

14. POPULATION AND HOUSING

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐
b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Comments:

a. The proposed project would increase the City's population by about 279 people (67 proposed households x 4.16 persons per household) (California Department of Finance 2024) and involve the extension of existing, and construction of new, roadways and utility infrastructure. Because the site is designated by the General Plan as Single-Family Residential and zoned Single-Family Residential (R-1), the City has anticipated residential uses at this site, including the infrastructure required to support the planned use. Therefore, the project would not induce unplanned growth.

b. The project involves the demolition of three existing homes. According to the California Department of Finance, the City of Soledad has approximately four people per household; therefore, it is assumed there are approximately 12 people the proposed project would displace. This is not a substantial number of people and would not necessitate constructing replacement housing elsewhere.

15. PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	☐	☐	☐	☒
b. Police protection?	☐	☐	☐	☒
c. Schools?	☐	☐	☒	☐
d. Parks?	☐	☐	☒	☐
e. Other public facilities?	☐	☐	☒	☐

Comments:

a. The project would increase the demand for fire protection services in Soledad.

The City Fire Department is located at 525 Monterey Street and is comprised of one Battalion Chief, two Fire Captains, three Fire Apparatus Engineers, and one Training Fire Captain. Response equipment includes Engine 37, Engine 137, and a Utility 37 (City of Soledad 2024). The Fire Department has an Insurance Services Office rating of 3, which is below the City goal to achieve and maintain a rating of 4 or better (General Plan Policy S-35). The Fire Department is meeting goal to respond to fire emergencies in 5 minutes or less within 90 percent of the city limits (General Plan Policy S-36) (Jason Luckenbach, email message, August 16, 2024). The City has contracted with the California Department of Forestry and Fire Protection (CalFire) since January 2012 to provide mutual fire protection services.

The increase in fire service demand from the project can be accommodated (Jason Luckenbach, email message, August 16, 2024). The project is proposed on an infill site and would not impact response times to the area. The proposed project would not trigger the need to construct new facilities, the construction of which could result in environmental impacts.

Municipal Code Section 14.06.055 requires that new development pay a public safety facilities development impact fee to offset the costs for construction and/or acquisition of municipal public safety (police and fire) facilities, equipment, and vehicles.

b. The proposed project would increase the demand for police protection services.

The Soledad Police Department is located at 236 Main Street and staffs 27 full-time, sworn and non-sworn police personnel, four reserve officers, and four volunteers (Damon Wasson, email message, August 16, 2024). General Plan Policy S-29 encourages the Police Department to achieve and maintain a ratio of one police officer per 1,000 residents. With 27 full-time police personnel and a current population of 26,966 people (California Department of Finance 2024), the Police Department meets this standard. Additionally, in compliance with General Plan Policy S-30, the Police Chief states that the department is able to respond to police emergencies within five minutes (Damon Wasson, email message, August 16, 2024).

The Police Department is approaching its service capacity and ability to maintain current response times. Additional personnel, vehicles, and facility space is needed if acceptable service capacity/response time is to be maintained as the population continues to grow (Damon Wasson, email message, August 16, 2024).

The project is proposed on an infill site and would not increase response times relative to existing conditions. The proposed project alone is not expected to trigger the need to construct new facilities, the construction of which could result in environmental impacts.

Municipal Code Section 14.06.055 requires that new development pay a public safety facilities development impact fee to offset the costs for construction and/or acquisition of municipal public safety (police and fire) facilities, equipment, and vehicles.

c. The Soledad Unified School District operates five elementary schools, one middle school, one high school, and one continuation high school (Soledad Unified School District 2024). The school district was contacted on several occasions to provide input on its ability to accommodate new students that will reside within the project site. However, no response was provided. The following discussion is based on publicly available information.

Based on the location of the project site, elementary school-age students generated by the project would likely attend either Gabilan Elementary or San Vicente Elementary. Older students would attend Main Street Middle School and Soledad High School. Table 8, Student Enrollment 2023-24, provides the most recent school year enrollment for the respective schools.

Table 8 Student Enrollment 2023-24

Schools	Enrollment
Gabilan Elementary	416
San Vicente Elementary	527
Main Street Middle	760
Soledad High	1,503

SOURCE: DataQuest 2024a, b, c, d

Available individual school capacity and districtwide capacity was not provided by the school district. Based on enrollment data for the 2023-24 school year, district wide enrollment is the lowest it has been in the last five years, with the highest total enrollment of 4,911 students having occurred in the 2020-21 school year (DataQuest 2024e). This highest enrollment level exceeds current enrollment by 200 students.

In the absence of data from the school district, student generation rates from the Gonzales Unified School District, located approximately six miles to the northwest, is being used to estimate student generation for the proposed project. The data is assumed to be a reasonable approximation given the similar population demographic profiles for the two cities. Table 9, Student Generation, includes an estimate of student generation from the proposed project.

Table 9 Student Generation

Number of Proposed Units	Student Generation Rates	Number of New Students
67	0.4331 elementary school students (K-6)	29
	0.1137 middle school students (7-8)	8
	0.2237 high school students (9-12)	15
Total		**52**

SOURCE: SchoolWorks 2020

Given that the current district wide enrollment level is lower than the highest recent district wide enrollment, it is assumed that capacity exists to serve the proposed project and that the project would not trigger the need to build new school facilities.

The developer will be required to pay school impact fees pursuant to Section 65995(h) of the California Government Code prior to the approval of building permits to offset its demand on the school district operations and facilities. The proposed project would, therefore, have a less than significant impact.

d, e. Refer to Section 16.0, Recreation.

16. RECREATION

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Comments:

a-b. The Soledad Parks and Recreation Department manages 19 parks, totaling approximately 36 acres. Using the City's goal of providing 3 acres per 1,000 residents (per General Plan Policy PR-1), Soledad does not currently meet this goal. With the proposed project estimated to generate approximately 308 new residents, the project would generate demand for approximately 0.8 acres of park and recreation facilities. The project does not include recreational facilities; however, the site is located approximately 300 feet from Orchard Lane Park. Therefore, recreational facilities would be immediately available to future project residents.

Project residents could increase the use of existing neighborhood and regional parks or other recreational facilities. City Municipal Code Section 14.06.100 requires that new residential development pay a park facilities development impact fee to offset the capital costs of constructing new and expanding existing parkland facilities and equipment. Fees are typically due at the time a building permit is issued. The applicant would be required to pay the impact fee to offset its cumulative park and recreation impacts.

The City is responsible for providing park and recreation resources to its residents. The environmental effects of constructing and operating new parks to meet existing outstanding demand and the incremental increase in demand from the project would be similar to constructing and operating other types of development, whose environmental impacts may include, but not be limited to, air quality, cultural resources, greenhouse gas emissions, etc. Impacts of constructing new off-site park and recreation facilities needed to help meet unmet demand would be evaluated through an independent CEQA analysis conducted by the City as lead agency at the time the new or expanded park facility projects are proposed.

For the reasons noted above, impacts associated with the proposed project would be less than significant.

17. TRANSPORTATION

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b.	Conflict or be inconsistent with CEQA guidelines section 15064.3, subdivision (b)?	☒	☐	☐	☐
c.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d.	Result in inadequate emergency access?	☐	☐	☐	☒

Comments:

a. **Transit Facilities**. Soledad is not served by regularly scheduled intra-city public transit; however, the Monterey-Salinas Transit system provides regularly scheduled service between King City and Salinas with a stop in Soledad (City of Soledad 2005). Only two bus stops are currently located in Soledad (Front/San Vicente and Mission Center), both of which are more than one mile walking-distance from the project site (Hexagon Transportation Consultants 2025).

The City has partnered with Monterey-Salinas Transit to plan for 13 new bus stops within the city. The new MST Circulator service would loop every 30 minutes. One of the new stops will be on the corner of Orchard Lane and Gabilan Drive, approximately 0.4 miles north of the project site (Ariana Mora, email message, February 26, 2025). Service is expected to begin in 2025.

The project would not conflict with Monterey-Salinas Transit's ability to provide transit service or result in modification or elimination of existing transit facilities.

Roadway Facilities. The proposed project involves the extension of Cadena Drive, the re-paving of Cedar Lane, and the construction of several new internal streets. The project will be required to comply with General Plan Policy C-2, which requires that new development improve a minimum of one-half street along the outer-boundaries of the subdivision where street extensions are identified; Policy C-8, which requires that new development mitigate the traffic impacts that it causes; Policy C-9, which requires that new local streets be developed consistent with the goals, policies, and programs of the Land Use Element of the General Plan; and Policy C-13, which requires that new

development pays its fair share of the costs of circulation improvements required by the development through a combination of traffic impact fees and other funding mechanisms. Similar to General Plan Policy C-13, Municipal Code Section 14.06.080 discusses traffic facility development impact fees that must be paid by new development.

Required compliance with the aforementioned General Plan policies and City Municipal Code would ensure that the project does not conflict with a policy or ordinance addressing the circulation system.

Bicycle and Pedestrian Facilities. There are existing bicycle lanes and pedestrian sidewalks on both sides of Orchard Lane. The proposed project is required to comply with General Plan Policy C-23, which states that bike lanes and paths shall be established when either the street section is re-paved, re-striped, or other changes are made to its cross-sectional design; the street section is being changed as part of a development project; or the construction of bike lanes or paths is called for by the City's Capital Improvement Plan. The project will also be required to comply with General Plan Policy C-25, which requires that new development provide bike lanes and paths, secure bicycle storage, and parking facilities as may be required by the City.

The *Active Transportation Plan for Monterey County* (TAMC 2018) identifies all existing and proposed bicycle and pedestrian facilities in Monterey County as well as the gaps in the bicycle/pedestrian network and opportunity areas for innovative designs. According to this plan, there are several goals and policies of the City General Plan that support the projects in this plan. For example, Circulation Goal 2, which encourages the use of alternate forms of transportation other than automobile. Compliance with the applicable goals and policies of the General Plan would ensure that the project does not conflict with a plan or policy addressing the bicycle and pedestrian circulation system.

b. Hexagon Transportation Consultants prepared a vehicle miles traveled (VMT) assessment for the proposed project (Appendix G). CEQA Guidelines Section 15064.3(b) states that VMT will be the metric in analyzing transportation impacts for land use projects for CEQA purposes. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in one day. Neither the City nor Monterey County have specific VMT policies and thresholds Therefore, this VMT assessment relies on the California Governor's Office of Land Use and Climate Innovation (formerly, Governor's Office of Planning and Research) guidelines for analyzing project VMT effects.

As described in the VMT assessment, the project would generate 12.7 VMT per capita. This includes VMT reductions that accrue to the affordable housing component of the project and from access to public transit. Even with these reductions, the project would exceed the VMT threshold of significance of 11.2 VMT per capita. A range of possible additional VMT reduction opportunities were explored, but none were found to be feasible, applicable to the proposed project, or within the applicant's control. **Therefore, the VMT impact would be significant and unavoidable and an EIR is required.**

c. The project is proposed for a vacant, infill site that fronts on Orchard Lane and is adjacent to existing residential and public facility uses. The applicant will be responsible only for constructing internal road way improvements that must be constructed to City standards enumerated in City Municipal Code Section 16.24.050 (I), Road and Streets, and must receive approval for the internal roadway design from the Building Department to ensure that the internal roadways operate safely. The project would not physically effect safety conditions on Orchard Lane or other roadways. Consequently, the project would not in hazardous circulation conditions.

d. The proposed project has two access points: Cadena Drive and Cedar Lane. According to City Department comments on the application materials, the project plans must show fire truck dimensions to prove that adequate access is provided in the subdivision. The project will also be required to comply with General Plan Policy S-38, which states that all proposed developments are required to be reviewed for compliance with fire safety standards per the California Fire Code and other City standards and ordinances. Required compliance with City standards and General Plan policy would ensure that the project does not result in inadequate emergency access.

18. TRIBAL CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(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.	☐	☐	☐	☒

Comments:

a. The City sent tribal consultation offer letters to the Native American Tribes traditionally and culturally affiliated with the project area on August 19, 2024. As of January 29 2025, one tribe responded but did not request consultation. Therefore, no tribal cultural resources were identified for the project site or area that could be affected by it.

19. UTILITIES AND SERVICE SYSTEMS

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, single-dry and multiple- dry years?	☐	☐	☐	☒
c.	Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d.	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Comments:

a. The project would require the construction of new on-site water, wastewater, and storm drain facilities. The short-term environmental effects of constructing the project, including infrastructure, are addressed throughout this initial study. Potentially significant construction-related environmental impacts would be reduced to a less-than-significant level through implementation of the mitigation measures identified throughout this initial study.

b. According to the *City of Soledad 2020 Urban Water Management Plan*, the City's water supply is 100 percent reliable in all hydrologic conditions: average, single-dry, and five consecutive dry water year periods (p. 7-7). The Urban Water Management Plan projects water demand in part based on growth based on General Plan land uses, including development on the project site. Therefore, the project water demand is accounted for in the Urban Water Management Plan. Sufficient water supplies would be available to serve the project.

c. The Soledad wastewater treatment plant is located at 34520 Morisoli Road in Soledad and has a treatment capacity of 5.5 million gallons per day. In 2023, the City delivered about 445 million gallons to the wastewater treatment plant while the flow pumped from the Soledad/Salinas Valley Prisons was approximately 448 million gallons. Therefore, the total wastewater treated at the wastewater treatment plant in 2023 was approximately 893 million gallons, or approximately 2.4 million gallons of wastewater per day. Remaining capacity is approximately 3.1 million gallons per day.

The *Final City of Soledad Sanitary Sewer Master Plan* uses a flow factor of 1,475 gallons per day per acre for low density residential land uses and 2,000 gallons per day per acre for medium and high-density residential land uses. Using these factors, the proposed project would generate approximately 8,592 gallons of wastewater per day (5.31 acres for proposed single family residences x 1,475 gallons per day per acre) + (0.38 acres for proposed multi-family residences x 2,000 gallons per day per acre), or 0.009 million gallons of wastewater per day. This total could can readily be accommodated by the wastewater treatment plant. The project would not require construction of new wastewater treatment plant facilities and would have no associated environmental indirect environmental impacts.

d, e. The Salinas Valley Solid Waste Authority (SVSWA) is a joint powers agency made up of several local governments including the City of Soledad. The SVSWA is responsible for providing solid waste disposal and resource recovery service to residents in Soledad and directs the solid waste to the Johnson Canyon Sanitary Landfill (Salinas Valley Solid Waste Authority 2024a).

The Johnson Canyon Sanitary Landfill has a ceased operation date of December 31, 2066 and as of May 1, 2021, the landfill had a remaining capacity of approximately 12.6 million cubic yards. The maximum permitted capacity is 18.5 million cubic yards and the maximum permitted throughput is 1,694 tons per day (CalRecycle 2024a).

The SVSWA has an annual population disposal rate of 4.6 pounds of solid waste per person (CalRecycle 2024b). Using this disposal rate, the project is estimated to generate approximately 1,283 pounds of solid waste (279 proposed residents x 4.6 pounds of solid waste per person), or 0.64 tons of solid waste per year. This total represents only a fraction of the landfill's maximum daily throughput and capacity.

The SVSWA focuses on assisting its member agencies, including Soledad, to comply with the solid waste reduction mandate of Senate Bill 1383 and the solid waste diversion goals pursuant to Assembly Bill 939 (Salinas Valley Solid Waste Authority 2024b). The City aligns its solid waste goals and solid waste collection service contracting with SVSWA guidance. Therefore, the project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

20. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	☐	☐	☐	☒
c.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Comments:

a-d. The project site is not located within or near state responsibility areas or lands classified as very high fire hazard severity zones. The nearest are located over one mile to the east (CalFire 2024).

21. MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Does the project have the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☒	☐	☐	☐
c.	Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Comments:

a. As discussed in Section 4.0, Biological Resources, the proposed project has low potential to contain protected biological resources given the degraded condition of the site. Mitigation measures presented in that section would reduce impacts on such resources, if found to be present, to a less-than-significant level. Therefore, the project would 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 an endangered, rare, or threatened species.

The proposed project has the potential to result in adverse effects to unknown, buried historic resources or unique archaeological resources. Mitigation measures presented in Section 5.0, Cultural Resources, would ensure that such an impact, if it were to occur, would not be significant and would not eliminate important examples of the major periods of California history or prehistory.

No other effects of the project have the potential to substantially degrade the quality of the environment. See also item "c" below.

b. The General Plan EIR identifies cumulative impacts from buildout of the city as guided by the General Plan. Per General Plan EIR Table IV-4, Summary Dwelling Unit and Population Holding Capacity of 2004 General Plan by Expansion Area, the proposed 67 dwelling units represent approximately 0.006 percent of the 11,081 new residential units projected at general plan buildout. The proposed project is consistent with the land use designation for the project site as identified in the General Plan. Consequently, the General Plan EIR addresses the very small incremental contribution of the proposed project to cumulative impacts of development within the city. The General Plan EIR identifies policies and implementation programs that serve as mitigation measures to reduce impacts of cumulative development, including development of the project site. The proposed project must be consistent with the policies and implementation actions as a means to reduce its contribution to cumulative General Plan buildout impacts.

Project specific impacts that contribute to cumulative impacts would be lessened with mitigation measures identified in this initial study. These include: health risks from construction TAC emissions (mitigation measure AQ-1), impacts to special-status species bats (mitigation measures BIO-1 and BIO-2), impacts to nesting birds (mitigation measures BIO-2 and BIO-3), impacts to cultural resources (mitigation measures CUL-1 and CUL-2), impacts to paleontological resources (mitigation measure GEO-1), impacts from hazardous materials release during demolition activities (mitigation measure HAZ-1); and temporary construction noise (mitigation measure N-1).

With exception of the VMT impacts described below, required consistency with General Plan policies and programs, and with mitigation measures in this initial study would ensure that the project contribution to cumulative impacts would be less than considerable.

A project whose VMT falls below an efficiency-based threshold of significance metric such as VMT per capita is aligned with long-term environmental goals and relevant plans, would have no cumulative impact distinct from the project impact. Because the project impact is significant and unavoidable, its contribution to cumulative VMT impacts is cumulatively considerable.

Given the analysis here, cumulative impacts will not be addressed in the EIR that is required to address the VMT impacts of the project as described in in Section 17, Transportation, of this initial study.

c. The proposed project could indirectly cause substantial adverse effects to human beings associated with release of hazardous materials from demolition of existing structures, temporary generation of toxic air contaminants during construction, and temporary generation of noise during construction. These impacts are reduced to less than significant through implementation of mitigation measures described in this initial study. Therefore, the proposed project would not result in significant environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

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Vesting Tentative Subdivision Map

A

APPENDIX

VESTING TENTATIVE MAP
FOR
ALMOND ACRES
SOLEDAD, CALIFORNIA

PROJECT DESCRIPTION

ALMOND ACRES IS A 12.48 ACRE SINGLE FAMILY LOT, APARTMENT, AND MOBILE HOME PARK SUBDIVISION. EXISTING MOBILE HOME PARK IS TO REMAIN.

PARCEL SUMMARY

USE	PARCEL	ACREAGE
RESIDENTIAL	LOTS 1 - 55	5.31
STREET RIGHT-OF-WAY		3.06
MOBILE HOME PARK	PARCEL A	3.32
APARTMENTS	PARCEL B	0.38
STORMWATER FACILITIES	PARCEL C	0.41
TOTAL TENTATIVE MAP ACREAGE		12.48

GENERAL NOTES

1. OWNER/SUBDIVIDER: NINO FAMILY LP
   PO BOX 1180
   TREE PINOS, CA 95075
   (831) 902-0566

2. CIVIL ENGINEER: WHITSON ENGINEERS
   6 HARRIS COURT
   MONTEREY, CA 93940
   (831) 649-5225

3. ASSESSOR'S PARCEL NUMBER: 022-281-005

4. SITE AREA: 12.48 ACRES

5. GENERAL PLAN DESIGNATION: SINGLE FAMILY RESIDENTIAL

6. CURRENT LAND USE: MOBILE HOME PARK, THREE SINGLE FAMILY RESIDENCES, UNDEVELOPED LAND

7. CURRENT ZONING: RESIDENTIAL - SINGLE FAMILY

8. PROPOSED LAND USE: EXISTING MOBILE HOME PARK TO REMAIN, SINGLE FAMILY RESIDENCE SUBDIVISION

8. UTILITIES:

   SANITARY SEWER: CITY OF SOLEDAD

   STORM DRAIN: CITY OF SOLEDAD

   WATER: CITY OF SOLEDAD

   GAS & ELECTRIC: PACIFIC GAS AND ELECTRIC

   TELEPHONE: AT&T

   CABLE COMPANY: CHARTER COMMUNICATIONS

   FIRE: CITY OF SOLEDAD

9. THE PROPOSED GRADING AS SHOWN IS PRELIMINARY AND IS SUBJECT TO FINAL DESIGN.

10. ALL GRADING SHALL BE DONE IN CONFORMANCE WITH THE RECOMMENDATIONS AND CONDITIONS OF THE GEOTECHNICAL ENGINEERING REPORT FOR THE ALMOND ACRES RESIDENTIAL DEVELOPMENT, PREPARED BY EARTH SYSTEMS PACIFIC, DATED MARCH 22, 2024.

11. UTILITY LOCATIONS, STREET GRADES, AND LOT DIMENSIONS ARE PRELIMINARY AND ARE SUBJECT TO FINAL ENGINEERING DESIGN AND HOUSE PLOTTING.

12. FINAL MAPS MAY BE FILED IN MULTIPLE PHASES.

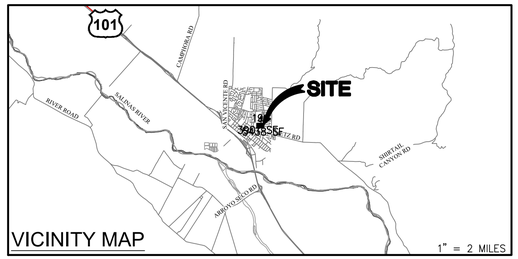
13. ALL EXISTING EASEMENTS SHOWN WITHIN THE SUBDIVISION ARE TO BE QUITCLAIMED UNLESS OTHERWISE NOTED. NEW EASEMENTS SHALL BE DEDICATED TO THE APPROPRIATE AGENCIES. PEDESTRIAN ACCESS AND EMERGENCY ACCESS EASEMENTS WILL BE REQUIRED WITHIN PUBLIC AND PRIVATE RIGHT-OF-WAYS.

14. TOPOGRAPHY SHOWN IS BASED ON FIELD SURVEYS PERFORMED BY WHITSON ENGINEERS ON JANUARY 2021 AND MAY 2023.

15. FINAL ENGINEERING DESIGN MAY REQUIRE CHANGES TO THE LOCATION OF INFRASTRUCTURE AND DRAINAGE FACILITIES.

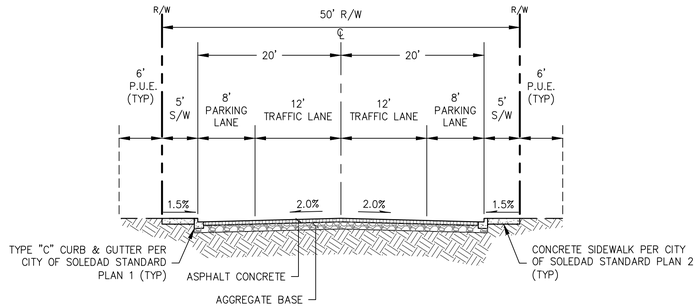
16. ALL SIZES, AREAS, VOLUMES, LENGTHS AND DISTANCES CONTAINED HEREIN ARE ONLY APPROXIMATE AND ARE NOT INTENDED, NOR SHOULD THEY BE ACCEPTED AS EXACT MEASUREMENTS.

17. EXISTING STRUCTURES AND TREES, EXCEPT THOSE IN PARCEL A (MOBILE HOME PARK) ARE TO BE REMOVED.



VICINITY MAP

1" = 2 MILES



50' PUBLIC STREET TYP. SECTION

NOT TO SCALE

LEGEND

DESCRIPTION	PROPOSED	EXISTING
SUBDIVISION BOUNDARY		
LOT LINE		
RIGHT-OF-WAY		
CENTER LINE		
EASEMENT LINE		
EASEMENT TO BE ABANDONED AND FACILITIES TO BE RELOCATED TO R/W		
HINGE LINE/TOP SLOPE		
TOE SLOPE		
SAWCUT LIMIT		
GUTTER FLOWLINE		
CURB AND GUTTER		
SIDEWALK		
DRIVEWAY CURB CUT		
CURB RAMP CALTRANS A88A CASE "A"		
DOMESTIC WATER MAIN	8"W	12"W
SANITARY SEWER	8"SS	8"SS
STORM DRAIN	15"SD	24"SD
STORM MANHOLE		
STANDARD CURB INLET		
STORM DRAIN FIELD INLET		
SANITARY SEWER MANHOLE		
UTILITY POINT OF CONNECTION		

INDEX OF SHEETS

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ARV	AIR RELEASE VALVE
B	BUBBLER
BC	BEGINNING OF CURVE
BEG	BEGIN
BFP	BACK FLOW PREVENTER
BOV	BLOW OFF VALVE
BOW, BW	BACK OF WALK, BOTTOM OF WALL
BSM	BIORETENTION SOIL MIX
(C)	COMMERCIAL
CATV	CABLE TELEVISION
CB	CATCH BASIN
CG&S	CURB, GUTTER & SIDEWALK
CL	CENTERLINE
CO	CLEAN OUT
CONC	CONCRETE
CR	CROWN
DI	DROP INLET/DITCH INLET
DL	DRIVEWAY LIP
DW	DRIVEWAY
EC	END OF CURVE
EM	EASEMENT
EP	EDGE OF PAVEMENT
ER	END OF RETURN
EX, EXIST, (E)	EXISTING
(F)	FUTURE
FC	FACE OF CURB
FES	FLARED END SECTION
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FUT	FUTURE
FW	FACE OF WALL
GB	GRADE BREAK
GFF	GARAGE FINISH FLOOR
GL	GARAGE LIP
GP	GARAGE PAD
GND	GROUND
GR	GRATE
HGL	HYDRAULIC GRADE LINE
HL	HINGE LINE
HP	HIGH POINT
IEUE	INGRESS, EGRESS & UTILITY EASEMENT
IM	IRRIGATION METER
INV	INVERT
IS	IRRIGATION SLEEVE
L	LENGTH
LL	LOT LINE
LP	LOW POINT
LS	LANDSCAPE
LT	LEFT
MAX	MAXIMUM
MID	MIDDLE
MIN	MINIMUM
NE	NORTHEAST
NW	NORTHWEST
OB	OVERBUILD
OH	OVERHEAD ELECTRIC
(P)	PROPOSED
P	PAD
PCC	PORTLAND CEMENT CONCRETE
PFF	PORCH FINISH FLOOR
PIP	PROTECT IN PLACE
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
RT	RIGHT
R/W	RIGHT OF WAY
SC	SAW CUT
SCM	STORMWATER CONTROL MEASURE
SDMH	STORM DRAIN MANHOLE
SE	SOUTHEAST
S.L.D.	SEE LANDSCAPE DRAWINGS
SO	SIDE OPENING
SS	SANITARY SEWER
S.S.D.	SEE STRUCTURAL DRAWINGS
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
SW	SOUTHWEST
S/W	SIDEWALK
TB	TOP OF BANK
TBC	TOP OF BAND CURB
TC	TOP OF CURB
TI	TRAFFIC INDEX
TRC	TOP OF ROLLED CURB
TW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND GAS
UT	UNDERGROUND TELEPHONE
W	WATER
WM	WATER METER
WQ	WATER QUALITY
WV	WATER VALVE
XJT	EXISTING JOINT TRENCH

Civil Engineering
Land Surveying
6 Harris Court
Monterey, California
831-649-5225
whitsonengineers.com

Whitson ENGINEERS

REGISTERED PROFESSIONAL ENGINEER
ANDREW P. HUNTER
No. 67730
CIVIL
STATE OF CALIFORNIA

SUBMITTAL / REVISION
2 | 7/12/2024 | BDE | CITY SUBMITTAL

VESTING TENTATIVE MAP
ALMOND ACRES
SOLEDAD, CALIFORNIA
TITLE SHEET
APN: 022-281-005

SCALE: NONE
DRAWN: BDE
JOB No.: 4478.01
SHEET C-1 OF 3

NOT FOR CONSTRUCTION

T:\Monterey Projects\4478 - Almond Acres\CAD\PLANSET\TM\4478-TM.dwg bedelman Jul 12, 2024 - 5:55pm

0 1 2 INCHES 3

CALLE VALVERDE

CAMBRIA DRIVE

CADENA DRIVE

ORCHARD LANE

NINO HOMES AT LIBERTY COURT

ORCHARD VILLAS

N88°28'39"W 54.10'

N88°28'39"W 892.46'

10' PG&E EASEMENT PER REEL 1062 PAGE 62 TO BE ABANDONED

EASEMENT FOR PEDESTRIAN WALKWAY, SANITARY SEWER AND STORM DRAIN PIPELINES PER DOC. NO. 2005128870

SOLEDAD MISSION RECREATION DISTRICT

PARCEL C
0.41 AC

PARCEL B
0.38 AC

PARCEL A
3.32 AC

CITY OF SOLEDAD

GABILAN ELEMENTARY SCHOOL

SAN VICENTE ELEMENTARY SCHOOL

PEPPER LANE

CEDAR LANE

A STREET

B STREET

C STREET

AROMAS PLACE

10' PG&E EASEMENT PER REEL 1062 PAGE 62

10' PG&E EASEMENT PER REEL 1062 PAGE 62 TO BE ABANDONED

6' PUE

11'± VARIES

N11°31'43"E 234.83'

N11°31'43"E 212.00'

N11°31'43"E 354.3'

N11°31'43"E 127.46'

N88°30'02"W 946.73'

408.2'

233.6'

86.6'

138.6'

19 3901 SF	18 3825 SF	17 3825 SF	16 3825 SF	15 3825 SF	14 3825 SF	13 3825 SF	12 3825 SF	11 3825 SF	10 3825 SF	9 3825 SF	8 3825 SF	7 3825 SF	6 3825 SF	5 3825 SF	4 3825 SF	3 3825 SF	2 3825 SF	1 4243 SF					
																			20 3825 SF	21 4105 SF	22 4445 SF	37 4445 SF	
																			23 3995 SF	36 3995 SF	24 3995 SF	35 3995 SF	
																			25 3995 SF	34 3995 SF	26 3995 SF	33 3995 SF	
																			27 3995 SF	32 3995 SF	28 3995 SF	31 3995 SF	
																			29 4369 SF	30 4366 SF			
38 4530 SF	39 4250 SF	40 4250 SF	41 4250 SF	42 4791 SF																			
43 4530 SF	44 4250 SF	45 4250 SF	46 4250 SF	47 5438 SF																			
48 4531 SF	49 4250 SF	50 4232 SF	54 6676 SF	55 7358 SF																			
51 4477 SF	52 4200 SF	53 4199 SF																					

0 1 2 INCHES 3

40 0 40 80
SCALE: 1" = 40'

Civil Engineering
Land Surveying
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Monterey, California
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Whitson ENGINEERS

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STATE OF CALIFORNIA

SUBMITTAL / REVISION		
2	7/12/2024	CITY SUBMITTAL
	BDE	

VESTING TENTATIVE MAP
ALMOND ACRES

LOT AND BOUNDARY MAP

SOLEDAD, CALIFORNIA

APN: 022-281-005

SCALE:	1" = 40'
DRAWN:	BDE
JOB No.:	4478.01
SHEET	C-2
OF	3

NOT FOR CONSTRUCTION

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CALLE VALVERDE

CAMBRIA DRIVE

CADENA DRIVE

ORCHARD LANE

NINO HOMES AT LIBERTY COURT

ORCHARD VILLAS

SOLEDAD MISSION RECREATION DISTRICT

BIO-RETENTION POND WITH UNDERGROUND STORMWATER CHAMBERS SIZED TO RETAIN GREATER THAN THE 95TH PERCENTILE RAIN EVENT AND DETAIN RUNOFF TO PREDEVELOPMENT LEVELS FOR UP TO THE 100 YEAR RAIN EVENT. THE SUBDIVISION BOUNDARY IS 100% TRIBUTARY TO THIS STORMWATER MANAGEMENT AREA.

PARCEL C

PARCEL B

PARCEL A
3.32 AC

CITY OF SOLEDAD

GABILAN ELEMENTARY SCHOOL

SAN VICENTE ELEMENTARY SCHOOL

PEPPER LANE

A STREET

B STREET

C STREET

CEDAR LANE

AROMAS PLACE

RETAINING WALL

EX SDMH
RIM: 223.43

EX SDMH
RIM: 223.04

EX SSMH
RIM: 223.14

EX SSMH
RIM: 223.45
INV IN: 214.47
INV OUT: 214.37

SSMH 3
RIM: 227.9
INV: 218.9

EX SDMH
RIM: 223.42
INV IN: 211.52
INV OUT: 211.42

SDMH
RIM: 222.7
INV: 218.42

OVERFLOW

SSMH 4
RIM: 222.9
INV: 215.5

SSMH 5
RIM: 222.9
INV: 215.2

SSMH 10
CONNECT TO EX MOBILE HOME PARK SEWER SYSTEM

SDMH
RIM: 227.8
INV: 220.0

SSMH 3
RIM: 227.9
INV: 218.1

SDMH
RIM: 230.9
INV: 222.2

SSMH 2
RIM: 230.9
INV: 220.3

SSMH 1
RIM: 234.4
INV: 227.4

EX SSMH
RIM: 237.08
INV: 230.25

EX SDMH
RIM: 235.61
INV: 223.59

EX SSMH
RIM: 235.69
INV: 228.61

EX SDMH
RIM: 234.08
INV: 228.98

EX SSMH
RIM: 233.93
INV: 226.09

SSMH 6
RIM: 229.8
INV: 221.2

SSMH 7
RIM: 233.0
INV: 223.5

SDMH
RIM: 229.3
INV: 223.3

SDMH
RIM: 229.8
INV: 222.9

SDMH
RIM: 228.6
INV: 223.8

SSMH 9
RIM: 228.6
INV: 222.1

SSMH 8
RIM: 231.4
INV: 225.7

SSMH 8
RIM: 226.3
INV: 219.7

SDMH
RIM: 226.3
INV: 221.6

WATER STUB

WATER STUB

19 P 224.8	18 P 225.4	17 P 226.0	16 P 226.7	15 P 227.2	14 P 227.8	13 P 228.5	12 P 229.1	11 P 229.7	10 P 230.2	9 P 231.0	8 P 231.6	7 P 232.2	6 P 232.8	5 P 233.5	4 P 234.1	3 P 234.7	2 P 235.3	1 P 235.7	
20 P 228.0	21 P 228.4	22 P 229.2	37 P 231.8	38 P 233.0	39 P 233.8	40 P 234.5	41 P 235.2	42 P 236.0											
23 P 229.1	36 P 231.6	43 P 232.0	44 P 232.8	45 P 233.5	46 P 234.2	47 P 235.0													
24 P 228.9	35 P 231.4																		
25 P 228.7	34 P 231.1																		
26 P 228.5	33 P 230.8	48 P 231.7	49 P 232.6	50 P 233.1															
27 P 228.3	32 P 230.6																		
28 P 228.1	31 P 230.1	54 P 232.6	55 P 232.8																
29 P 227.9	30 P 229.1	51 P 230.7	52 P 231.1	53 P 231.6															

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SCALE: 1" = 40'

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Civil Engineering
Land Surveying
6 Harris Court
Monterey, California
831.649.5225
whitsonengineers.com

Whitson ENGINEERS

REGISTERED PROFESSIONAL ENGINEER
ANDREW P. HUNTER
No. 67730
CIVIL
STATE OF CALIFORNIA

SUBMITTAL / REVISION		
2	7/12/2024	BDE
	CITY SUBMITTAL	

VESTING TENTATIVE MAP
ALMOND ACRES

GRADING AND UTILITY PLAN

SOLEDAD, CALIFORNIA

APN: 022-281-005

SCALE:	1" = 40'
DRAWN:	BDE
JOB No.:	4478.01
SHEET	C-3
	OF 3

NOT FOR CONSTRUCTION

CalEEMod Results

APPENDIX B

Almond Acres_Unmitigated Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Almond Acres_Unmitigated
Construction Start Date	3/4/2025
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	5.00
Location	36.42961993190215, -121.31740953346602
County	Monterey
City	Soledad
Air District	Monterey Bay ARD
Air Basin	North Central Coast
TAZ	3266
EDFZ	6
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	55.0	Dwelling Unit	5.31	107,250	0.00	0.00	183	—

Apartments Low Rise	12.0	Dwelling Unit	0.38	12,720	0.00	0.00	40.0	—
Other Asphalt Surfaces	133	1000sqft	3.06	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Construction	C-10-B	Water Active Demolition Sites
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-13	Use Low-VOC Paints for Construction
Transportation	T-4	Integrate A ordable and Below Market Rate Housing
Area Sources	AS-1	Use Low-VOC Cleaning Supplies
Area Sources	AS-2	Use Low-VOC Paints

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Unmit.	161	31.7	31.0	0.05	21.1	5,442
Mit.	161	31.7	31.0	0.05	21.1	5,442
% Reduced	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Unmit.	2.47	22.3	20.6	0.03	1.02	3,540
Mit.	2.47	22.3	20.6	0.03	1.02	3,540

% Reduced	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—
Unmit.	9.09	7.83	9.43	0.02	1.36	1,750
Mit.	9.09	7.83	9.43	0.02	1.36	1,750
% Reduced	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—
Unmit.	1.66	1.43	1.72	< 0.005	0.25	290
Mit.	1.66	1.43	1.72	< 0.005	0.25	290
% Reduced	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—
Threshold	—	—	—	—	82.0	—
Unmit.	—	—	—	—	No	—
Mit.	—	—	—	—	No	—
Exceeds (Average Daily)	—	—	—	—	—	—
Threshold	—	—	—	—	82.0	—
Unmit.	—	—	—	—	No	—
Mit.	—	—	—	—	No	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—
2025	3.39	31.7	31.0	0.05	21.1	5,442
2026	161	10.1	14.3	0.02	0.61	2,756
Daily - Winter (Max)	—	—	—	—	—	—
2025	2.47	22.3	20.6	0.03	1.02	3,540
2026	1.20	10.2	14.2	0.02	0.61	2,743
Average Daily	—	—	—	—	—	—

2025	0.90	7.83	9.43	0.02	1.36	1,750
2026	9.09	2.29	3.23	0.01	0.14	598
Annual	—	—	—	—	—	—
2025	0.16	1.43	1.72	< 0.005	0.25	290
2026	1.66	0.42	0.59	< 0.005	0.02	98.9

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—
2025	3.39	31.7	31.0	0.05	21.1	5,442
2026	161	10.1	14.3	0.02	0.61	2,756
Daily - Winter (Max)	—	—	—	—	—	—
2025	2.47	22.3	20.6	0.03	1.02	3,540
2026	1.20	10.2	14.2	0.02	0.61	2,743
Average Daily	—	—	—	—	—	—
2025	0.90	7.83	9.43	0.02	1.36	1,750
2026	9.09	2.29	3.23	0.01	0.14	598
Annual	—	—	—	—	—	—
2025	0.16	1.43	1.72	< 0.005	0.25	290
2026	1.66	0.42	0.59	< 0.005	0.02	98.9

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Unmit.	7.13	3.51	23.0	0.05	4.10	6,615
Mit.	6.78	3.42	22.3	0.05	3.93	6,423

% Reduced	5%	2%	3%	3%	4%	3%
Daily, Winter (Max)	—	—	—	—	—	—
Unmit.	6.77	3.81	19.1	0.05	4.09	6,414
Mit.	6.42	3.70	18.4	0.05	3.93	6,231
% Reduced	5%	3%	4%	3%	4%	3%
Average Daily (Max)	—	—	—	—	—	—
Unmit.	6.11	3.11	22.1	0.06	4.21	5,647
Mit.	5.77	3.02	21.4	0.06	4.06	5,482
% Reduced	5%	3%	3%	3%	4%	3%
Annual (Max)	—	—	—	—	—	—
Unmit.	1.11	0.57	4.03	0.01	0.77	935
Mit.	1.05	0.55	3.91	0.01	0.74	908
% Reduced	5%	3%	3%	3%	4%	3%
Exceeds (Daily Max)	—	—	—	—	—	—
Threshold	137	137	550	150	82.0	—
Unmit.	No	No	No	No	No	—
Mit.	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—
Threshold	137	137	550	150	82.0	—
Unmit.	No	No	No	No	No	—
Mit.	No	No	No	No	No	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Mobile	2.29	1.90	16.8	0.04	3.73	4,276
Area	4.80	0.97	5.95	0.01	0.31	1,172

Energy	0.04	0.64	0.27	< 0.005	0.05	1,018
Water	—	—	—	—	—	31.6
Waste	—	—	—	—	—	117
Refrig.	—	—	—	—	—	0.86
Total	7.13	3.51	23.0	0.05	4.10	6,615
Daily, Winter (Max)	—	—	—	—	—	—
Mobile	2.26	2.23	16.7	0.04	3.73	4,085
Area	4.47	0.94	2.14	0.01	0.31	1,162
Energy	0.04	0.64	0.27	< 0.005	0.05	1,018
Water	—	—	—	—	—	31.6
Waste	—	—	—	—	—	117
Refrig.	—	—	—	—	—	0.86
Total	6.77	3.81	19.1	0.05	4.09	6,414
Average Daily	—	—	—	—	—	—
Mobile	2.15	2.03	15.3	0.04	3.59	3,958
Area	3.92	0.44	6.46	0.02	0.56	522
Energy	0.04	0.64	0.27	< 0.005	0.05	1,018
Water	—	—	—	—	—	31.6
Waste	—	—	—	—	—	117
Refrig.	—	—	—	—	—	0.86
Total	6.11	3.11	22.1	0.06	4.21	5,647
Annual	—	—	—	—	—	—
Mobile	0.39	0.37	2.80	0.01	0.66	655
Area	0.72	0.08	1.18	< 0.005	0.10	86.3
Energy	0.01	0.12	0.05	< 0.005	0.01	169
Water	—	—	—	—	—	5.23
Waste	—	—	—	—	—	19.4
Refrig.	—	—	—	—	—	0.14

Total	1.11	0.57	4.03	0.01	0.77	935

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Mobile	2.19	1.81	16.0	0.04	3.57	4,084
Area	4.56	0.97	5.95	0.01	0.31	1,172
Energy	0.04	0.64	0.27	< 0.005	0.05	1,018
Water	—	—	—	—	—	31.6
Waste	—	—	—	—	—	117
Refrig.	—	—	—	—	—	0.86
Total	6.78	3.42	22.3	0.05	3.93	6,423
Daily, Winter (Max)	—	—	—	—	—	—
Mobile	2.16	2.13	16.0	0.04	3.57	3,902
Area	4.23	0.94	2.14	0.01	0.31	1,162
Energy	0.04	0.64	0.27	< 0.005	0.05	1,018
Water	—	—	—	—	—	31.6
Waste	—	—	—	—	—	117
Refrig.	—	—	—	—	—	0.86
Total	6.42	3.70	18.4	0.05	3.93	6,231
Average Daily	—	—	—	—	—	—
Mobile	2.06	1.94	14.7	0.04	3.44	3,793
Area	3.68	0.44	6.46	0.02	0.56	522
Energy	0.04	0.64	0.27	< 0.005	0.05	1,018
Water	—	—	—	—	—	31.6
Waste	—	—	—	—	—	117
Refrig.	—	—	—	—	—	0.86

Total	5.77	3.02	21.4	0.06	4.06	5,482
Annual	—	—	—	—	—	—
Mobile	0.38	0.35	2.68	0.01	0.63	628
Area	0.67	0.08	1.18	< 0.005	0.10	86.3
Energy	0.01	0.12	0.05	< 0.005	0.01	169
Water	—	—	—	—	—	5.23
Waste	—	—	—	—	—	19.4
Refrig.	—	—	—	—	—	0.14
Total	1.05	0.55	3.91	0.01	0.74	908

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	2.40	22.2	19.9	0.03	0.92	3,437
Demolition	—	—	—	—	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	2.40	22.2	19.9	0.03	0.92	3,437
Demolition	—	—	—	—	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.13	1.22	1.09	< 0.005	0.05	188
Demolition	—	—	—	—	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.22	0.20	< 0.005	0.01	31.2
Demolition	—	—	—	—	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.07	0.05	0.68	0.00	0.10	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.07	0.06	0.65	0.00	0.10	104
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	5.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	0.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Demolition (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	2.40	22.2	19.9	0.03	0.92	3,437

Demolition	—	—	—	—	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	2.40	22.2	19.9	0.03	0.92	3,437
Demolition	—	—	—	—	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.13	1.22	1.09	< 0.005	0.05	188
Demolition	—	—	—	—	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.22	0.20	< 0.005	0.01	31.2
Demolition	—	—	—	—	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.07	0.05	0.68	0.00	0.10	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.07	0.06	0.65	0.00	0.10	104
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	5.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	0.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	3.31	31.6	30.2	0.05	1.37	5,314
Dust From Material Movement	—	—	—	—	19.7	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.09	0.87	0.83	< 0.005	0.04	146
Dust From Material Movement	—	—	—	—	0.54	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.15	< 0.005	0.01	24.1
Dust From Material Movement	—	—	—	—	0.10	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.08	0.06	0.79	0.00	0.12	129
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	3.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	0.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	3.31	31.6	30.2	0.05	1.37	5,314
Dust From Material Movement	—	—	—	—	19.7	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.09	0.87	0.83	< 0.005	0.04	146
Dust From Material Movement	—	—	—	—	0.54	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.15	< 0.005	0.01	24.1
Dust From Material Movement	—	—	—	—	0.10	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.08	0.06	0.79	0.00	0.12	129
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	3.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	0.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.74	16.3	17.9	0.03	0.72	2,970
Dust From Material Movement	—	—	—	—	7.08	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.10	0.89	0.98	< 0.005	0.04	163

Dust From Material Movement	—	—	—	—	0.39	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.18	< 0.005	0.01	26.9
Dust From Material Movement	—	—	—	—	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.07	0.05	0.68	0.00	0.10	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	5.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	0.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.74	16.3	17.9	0.03	0.72	2,970

Dust From Material Movement	—	—	—	—	7.08	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.10	0.89	0.98	< 0.005	0.04	163
Dust From Material Movement	—	—	—	—	0.39	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.18	< 0.005	0.01	26.9
Dust From Material Movement	—	—	—	—	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.07	0.05	0.68	0.00	0.10	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	5.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	0.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.51	4.70	5.87	0.01	0.19	1,083
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.09	0.86	1.07	< 0.005	0.04	179
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.14	0.09	1.29	0.00	0.19	209
Vendor	0.01	0.21	0.10	< 0.005	0.04	148
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.13	0.12	1.22	0.00	0.19	197
Vendor	0.01	0.22	0.10	< 0.005	0.04	147
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.06	0.05	0.52	0.00	0.09	89.1
Vendor	< 0.005	0.10	0.05	< 0.005	0.02	66.4

Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.02	14.7
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	11.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.51	4.70	5.87	0.01	0.19	1,083
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.09	0.86	1.07	< 0.005	0.04	179
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.14	0.09	1.29	0.00	0.19	209
Vendor	0.01	0.21	0.10	< 0.005	0.04	148
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—

Worker	0.13	0.12	1.22	0.00	0.19	197
Vendor	0.01	0.22	0.10	< 0.005	0.04	147
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.06	0.05	0.52	0.00	0.09	89.1
Vendor	< 0.005	0.10	0.05	< 0.005	0.02	66.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.02	14.7
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	11.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.19	1.79	2.36	< 0.005	0.07	438
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.04	0.33	0.43	< 0.005	0.01	72.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.13	0.09	1.20	0.00	0.19	205
Vendor	0.01	0.20	0.10	< 0.005	0.04	145
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.13	0.11	1.14	0.00	0.19	193
Vendor	0.01	0.21	0.10	< 0.005	0.04	145
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.02	0.02	0.20	0.00	0.03	35.3
Vendor	< 0.005	0.04	0.02	< 0.005	0.01	26.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	5.85
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	4.37
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.19	1.79	2.36	< 0.005	0.07	438
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.04	0.33	0.43	< 0.005	0.01	72.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.13	0.09	1.20	0.00	0.19	205
Vendor	0.01	0.20	0.10	< 0.005	0.04	145
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.13	0.11	1.14	0.00	0.19	193
Vendor	0.01	0.21	0.10	< 0.005	0.04	145
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.02	0.02	0.20	0.00	0.03	35.3
Vendor	< 0.005	0.04	0.02	< 0.005	0.01	26.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	5.85
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	4.37
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	1,516
Paving	0.40	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.04	0.39	0.54	< 0.005	0.02	83.1
Paving	0.02	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.10	< 0.005	< 0.005	13.8
Paving	< 0.005	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.07	0.05	0.63	0.00	0.10	108
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	5.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	0.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	1,516
Paving	0.40	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.04	0.39	0.54	< 0.005	0.02	83.1
Paving	0.02	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.10	< 0.005	< 0.005	13.8
Paving	< 0.005	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.07	0.05	0.63	0.00	0.10	108
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	5.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	0.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	134
Architectural Coatings	160	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.06	< 0.005	< 0.005	7.34
Architectural Coatings	8.79	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	1.22
Architectural Coatings	1.60	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.03	0.02	0.24	0.00	0.04	41.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	2.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	0.35
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	CO2e
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	134
Architectural Coatings	160	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.06	< 0.005	< 0.005	7.34
Architectural Coatings	8.79	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	1.22
Architectural Coatings	1.60	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.03	0.02	0.24	0.00	0.04	41.1

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	2.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	0.35
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	1.93	1.60	14.2	0.03	3.15	3,605
Apartments Low Rise	0.36	0.30	2.64	0.01	0.59	671
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.29	1.90	16.8	0.04	3.73	4,276
Daily, Winter (Max)	—	—	—	—	—	—
Single Family Housing	1.91	1.88	14.1	0.03	3.15	3,444
Apartments Low Rise	0.35	0.35	2.63	0.01	0.59	641
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00

Total	2.26	2.23	16.7	0.04	3.73	4,085
Annual	—	—	—	—	—	—
Single Family Housing	0.33	0.32	2.39	0.01	0.56	560
Apartments Low Rise	0.06	0.05	0.41	< 0.005	0.10	95.4
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.39	0.37	2.80	0.01	0.66	655

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	1.93	1.60	14.2	0.03	3.15	3,605
Apartments Low Rise	0.26	0.21	1.88	< 0.005	0.42	479
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.19	1.81	16.0	0.04	3.57	4,084
Daily, Winter (Max)	—	—	—	—	—	—
Single Family Housing	1.91	1.88	14.1	0.03	3.15	3,444
Apartments Low Rise	0.25	0.25	1.88	< 0.005	0.42	458
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.16	2.13	16.0	0.04	3.57	3,902
Annual	—	—	—	—	—	—
Single Family Housing	0.33	0.32	2.39	0.01	0.56	560
Apartments Low Rise	0.04	0.04	0.29	< 0.005	0.07	68.1
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.38	0.35	2.68	0.01	0.63	628

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	188
Apartments Low Rise	—	—	—	—	—	21.4
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	210
Daily, Winter (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	188
Apartments Low Rise	—	—	—	—	—	21.4
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	210
Annual	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	31.2
Apartments Low Rise	—	—	—	—	—	3.54
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	34.7

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	188
Apartments Low Rise	—	—	—	—	—	21.4
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	210
Daily, Winter (Max)	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	188
Apartments Low Rise	—	—	—	—	—	21.4
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	210
Annual	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	31.2
Apartments Low Rise	—	—	—	—	—	3.54
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	34.7

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	0.03	0.55	0.24	< 0.005	0.04	705
Apartments Low Rise	< 0.005	0.08	0.03	< 0.005	0.01	103
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.64	0.27	< 0.005	0.05	809
Daily, Winter (Max)	—	—	—	—	—	—
Single Family Housing	0.03	0.55	0.24	< 0.005	0.04	705
Apartments Low Rise	< 0.005	0.08	0.03	< 0.005	0.01	103
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.64	0.27	< 0.005	0.05	809
Annual	—	—	—	—	—	—
Single Family Housing	0.01	0.10	0.04	< 0.005	0.01	117
Apartments Low Rise	< 0.005	0.01	0.01	< 0.005	< 0.005	17.1
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.12	0.05	< 0.005	0.01	134

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	0.03	0.55	0.24	< 0.005	0.04	705
Apartments Low Rise	< 0.005	0.08	0.03	< 0.005	0.01	103
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.64	0.27	< 0.005	0.05	809
Daily, Winter (Max)	—	—	—	—	—	—
Single Family Housing	0.03	0.55	0.24	< 0.005	0.04	705
Apartments Low Rise	< 0.005	0.08	0.03	< 0.005	0.01	103
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.64	0.27	< 0.005	0.05	809
Annual	—	—	—	—	—	—
Single Family Housing	0.01	0.10	0.04	< 0.005	0.01	117
Apartments Low Rise	< 0.005	0.01	0.01	< 0.005	< 0.005	17.1
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.12	0.05	< 0.005	0.01	134

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Hearths	1.63	0.94	2.14	0.01	0.31	1,162
Consumer Products	2.58	—	—	—	—	—
Architectural Coatings	0.26	—	—	—	—	—

Landscape Equipment	0.33	0.04	3.81	< 0.005	< 0.005	10.2
Total	4.80	0.97	5.95	0.01	0.31	1,172
Daily, Winter (Max)	—	—	—	—	—	—
Hearths	1.63	0.94	2.14	0.01	0.31	1,162
Consumer Products	2.58	—	—	—	—	—
Architectural Coatings	0.26	—	—	—	—	—
Total	4.47	0.94	2.14	0.01	0.31	1,162
Annual	—	—	—	—	—	—
Hearths	0.16	0.08	0.70	< 0.005	0.10	85.2
Consumer Products	0.47	—	—	—	—	—
Architectural Coatings	0.05	—	—	—	—	—
Landscape Equipment	0.04	< 0.005	0.48	< 0.005	< 0.005	1.16
Total	0.72	0.08	1.18	< 0.005	0.10	86.3

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Hearths	1.63	0.94	2.14	0.01	0.31	1,162
Consumer Products	2.39	—	—	—	—	—
Architectural Coatings	0.21	—	—	—	—	—
Landscape Equipment	0.33	0.04	3.81	< 0.005	< 0.005	10.2
Total	4.56	0.97	5.95	0.01	0.31	1,172
Daily, Winter (Max)	—	—	—	—	—	—
Hearths	1.63	0.94	2.14	0.01	0.31	1,162
Consumer Products	2.39	—	—	—	—	—
Architectural Coatings	0.21	—	—	—	—	—
Total	4.23	0.94	2.14	0.01	0.31	1,162

Annual	—	—	—	—	—	—
Hearths	0.16	0.08	0.70	< 0.005	0.10	85.2
Consumer Products	0.44	—	—	—	—	—
Architectural Coatings	0.04	—	—	—	—	—
Landscape Equipment	0.04	< 0.005	0.48	< 0.005	< 0.005	1.16
Total	0.67	0.08	1.18	< 0.005	0.10	86.3

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	25.9
Apartments Low Rise	—	—	—	—	—	5.66
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	31.6
Daily, Winter (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	25.9
Apartments Low Rise	—	—	—	—	—	5.66
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	31.6
Annual	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	4.29
Apartments Low Rise	—	—	—	—	—	0.94
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	5.23

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	25.9
Apartments Low Rise	—	—	—	—	—	5.66
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	31.6
Daily, Winter (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	25.9
Apartments Low Rise	—	—	—	—	—	5.66
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	31.6
Annual	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	4.29
Apartments Low Rise	—	—	—	—	—	0.94
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	5.23

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	100
Apartments Low Rise	—	—	—	—	—	16.8
Other Asphalt Surfaces	—	—	—	—	—	0.00

Total	—	—	—	—	—	117
Daily, Winter (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	100
Apartments Low Rise	—	—	—	—	—	16.8
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	117
Annual	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	16.6
Apartments Low Rise	—	—	—	—	—	2.78
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	19.4

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	100
Apartments Low Rise	—	—	—	—	—	16.8
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	117
Daily, Winter (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	100
Apartments Low Rise	—	—	—	—	—	16.8
Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	117
Annual	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	16.6
Apartments Low Rise	—	—	—	—	—	2.78

Other Asphalt Surfaces	—	—	—	—	—	0.00
Total	—	—	—	—	—	19.4

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	0.77
Apartments Low Rise	—	—	—	—	—	0.09
Total	—	—	—	—	—	0.86
Daily, Winter (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	0.77
Apartments Low Rise	—	—	—	—	—	0.09
Total	—	—	—	—	—	0.86
Annual	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	0.13
Apartments Low Rise	—	—	—	—	—	0.02
Total	—	—	—	—	—	0.14

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	0.77
Apartments Low Rise	—	—	—	—	—	0.09
Total	—	—	—	—	—	0.86

Daily, Winter (Max)	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	0.77
Apartments Low Rise	—	—	—	—	—	0.09
Total	—	—	—	—	—	0.86
Annual	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	0.13
Apartments Low Rise	—	—	—	—	—	0.02
Total	—	—	—	—	—	0.14

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—

Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—

Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	3/4/2025	4/1/2025	5.00	20.0	—
Site Preparation	Site Preparation	4/2/2025	4/16/2025	5.00	10.0	—
Grading	Grading	4/17/2025	5/15/2025	5.00	20.0	—
Building Construction	Building Construction	5/16/2025	4/3/2026	5.00	230	—
Paving	Paving	4/4/2026	5/2/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	5/3/2026	5/31/2026	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38

Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29

Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	9.47	LDA,LDT1,LDT2
Demolition	Vendor	—	6.03	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	9.47	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.03	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	9.47	LDA,LDT1,LDT2
Grading	Vendor	—	6.03	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

Building Construction	—	—	—	—
Building Construction	Worker	28.4	9.47	LDA,LDT1,LDT2
Building Construction	Vendor	7.16	6.03	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	9.47	LDA,LDT1,LDT2
Paving	Vendor	—	6.03	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.69	9.47	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.03	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	9.47	LDA,LDT1,LDT2
Demolition	Vendor	—	6.03	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	9.47	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.03	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT

Grading	—	—	—	—
Grading	Worker	15.0	9.47	LDA,LDT1,LDT2
Grading	Vendor	—	6.03	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	28.4	9.47	LDA,LDT1,LDT2
Building Construction	Vendor	7.16	6.03	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	9.47	LDA,LDT1,LDT2
Paving	Vendor	—	6.03	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.69	9.47	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.03	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

Architectural Coating	242,939	80,980	0.00	0.00	7,998

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	15.0	0.00	—
Grading	—	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	3.67

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	0.61	0%
Apartments Low Rise	—	0%
Other Asphalt Surfaces	3.06	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	519	525	470	187,242	4,372	4,419	3,960	1,576,798
Apartments Low Rise	87.8	97.7	75.4	31,924	740	823	635	268,837
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	519	525	470	187,242	4,372	4,419	3,960	1,576,798
Apartments Low Rise	62.7	69.7	53.8	22,794	528	587	453	191,949
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	2
Gas Fireplaces	50
Propane Fireplaces	4
Electric Fireplaces	0
No Fireplaces	0

Conventional Wood Stoves	0
Catalytic Wood Stoves	3
Non-Catalytic Wood Stoves	3
Pellet Wood Stoves	4
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	12
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	2
Gas Fireplaces	50
Propane Fireplaces	4
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	3
Non-Catalytic Wood Stoves	3
Pellet Wood Stoves	4
Apartments Low Rise	—

Wood Fireplaces	0
Gas Fireplaces	12
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
242939.25	80,980	0.00	0.00	7,998

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	333,484	204	0.0330	0.0040	2,194,507
Apartments Low Rise	37,855	204	0.0330	0.0040	321,521
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	333,484	204	0.0330	0.0040	2,194,507
Apartments Low Rise	37,855	204	0.0330	0.0040	321,521
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	2,299,391	0.00
Apartments Low Rise	501,685	0.00
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	2,299,391	0.00
Apartments Low Rise	501,685	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	53.1	—
Apartments Low Rise	8.91	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	53.1	—
Apartments Low Rise	8.91	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	20.7	annual days of extreme heat
Extreme Precipitation	1.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	27.9	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	37.6
AQ-PM	1.05
AQ-DPM	6.75
Drinking Water	60.1
Lead Risk Housing	48.6
Pesticides	78.5
Toxic Releases	0.55
Traffic	28.9
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	1.80
Impaired Water Bodies	51.2
Solid Waste	9.67
Sensitive Population	—
Asthma	42.4
Cardio-vascular	59.4
Low Birth Weights	53.8
Socioeconomic Factor Indicators	—
Education	88.5
Housing	46.5
Linguistic	73.1
Poverty	66.3
Unemployment	18.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	31.34864622
Employed	22.03259335
Median HI	47.95329142
Education	—
Bachelor's or higher	10.88156037
High school enrollment	100
Preschool enrollment	30.74554087
Transportation	—
Auto Access	88.68215065
Active commuting	12.33157962
Social	—
2-parent households	58.42422687
Voting	30.10393943
Neighborhood	—
Alcohol availability	74.95187989
Park access	45.61786218
Retail density	8.404978827
Supermarket access	32.88848967
Tree canopy	1.616835622
Housing	—
Homeownership	57.5003208
Housing habitability	41.49878096
Low-inc homeowner severe housing cost burden	37.0075709
Low-inc renter severe housing cost burden	39.07352752
Uncrowded housing	24.18837418
Health Outcomes	—

Insured adults	29.71897857
Arthritis	0.0
Asthma ER Admissions	66.5
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	78.2
Cognitively Disabled	74.6
Physically Disabled	83.0
Heart Attack ER Admissions	45.2
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	48.4
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	22.0
Elderly	72.3

English Speaking	16.1
Foreign-born	79.1
Outdoor Workers	4.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	52.5
Traffic Density	29.1
Traffic Access	0.0
Other Indices	—
Hardship	83.3
Other Decision Support	—
2016 Voting	28.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	33.0
Healthy Places Index Score for Project Location (b)	36.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Adjusted to match project description
Operations: Road Dust	Travel will take place on paved roads.
Construction: On-Road Fugitive Dust	Worker, vendor, and hauling will take place on paved roads.

Special-Status Species with Potential to Occur in the Project Vicinity

C

APPENDIX

Appendix C Special-Status Plant Species with the Potential to Occur in the Project Vicinity

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on the Project Site
Bristlecone fir *(Abies bracteata)*	--/--/1B	Lower montane coniferous forest, rocky sites in Monterey and San Luis Obispo; elevation 210-1600m. Evergreen	Unlikely. No coniferous forest habitat. Outside of elevation range.
Carmel Valley bush-mallow *(Malacothamnus involucratus)*	--/--/1B.2	Chaparral, cismontane woodland, coastal scrub; elevation 30-1100m. Blooming Period: May - October	Unlikely. No chaparral, woodland or coastal scrub habitat.
Carmel Valley malacothrix *(Malacothrix saxatilis* var. *arachnoidea)*	--/--/1B.2	Chaparral (rocky); elevation 25-335m. Blooming Period: March - December	Unlikely. No rocky chaparral habitat.
Chaparral ragwort *(Senecio aphanactis)*	--/--/2B.2	Cismontane woodland and coastal scrub. Prefers drying alkaline flats; elevation 20-575m. Blooming Period: January - April	Unlikely. No suitable woodland or coastal scrub habitat.
Congdon's tarplant *(Centromadia parryi* spp. *congdonii)*	--/--/1B.1	Valley and foothill grassland (alkaline); elevation 1-230m. Known to occur on various substrates, and in disturbed and ruderal (weedy) areas. Blooming Period: June - November	Unlikely. Suitable disturbed ruderal area. No individuals observed during site visit.
Davidson's bush-mallow *(Malacothamnus davidsonii)*	--/--/1B.2	Coastal scrub, riparian woodland, chaparral, sandy washes; elevation 180-855m. Blooming Period: June - January	Unlikely. No suitable coastal scrub, riparian woodland, chaparral, sandy wash habitats present. Outside of elevation range.
Gabilan Mountains manzanita *(Arctostaphylos gabrielensis)*	--/--/1B.2	Chaparral, cismontane woodland, granitic substrates; elevation 300-700m. Blooming Period: March	Unlikely. No suitable granitic substrates in chaparral or cismontane woodland habitats present. Outside of elevation range.
Hooked popcorn flower *(Plagiobothrys uncinatus)*	--/--/1B.2	Chaparral (sandy), cismontane woodland, valley and foothill grassland; elevation 300-730m. Blooming Period: April - May	Unlikely. No suitable chaparral, cismontane woodland or foothill grassland habitat present. Outside of elevation range.
Hospital Canyon larkspur *(Delphinium californicum* ssp. *interius)*	--/--/1B.2	Cismontane woodland and chaparral, in wet, boggy meadows, openings in chaparral, and in canyons; elevation 225-1060m. Blooming Period: April - June	Unlikely. No suitable cismontane woodland, chaparral habitat with wet bogy meadows and openings. Outside of elevation range.
Indian Valley bush-mallow *(Malacothamnus aboriginum)*	--/--/1B.2	Chaparral and cismontane woodland; rocky, often burned areas. Prefers granitic outcrops and sandy bare soil; elevation 150-1700m. Blooming Period: April - October	Unlikely. No suitable burned areas in chaparral or cismontane woodland habitats present. Outside of elevation range.
Jolon clarkia *(Clarkia jolonensis)*	--/--/1B.2	Cismontane woodland, chaparral, coastal scrub; elevation 20-660m. Blooming Period: April - June	Unlikely. No suitable woodland, chaparral, or coastal scrub habitat present.
Lemmon's jewel-flower *(Caulanthus coulteri* var. *lemmonii)*	--/--/1B.2	Pinyon-juniper woodland, valley and foothill grassland; elevation 80-1220m. Blooming Period: March - May	Unlikely. No suitable pinyon-juniper woodland or valley/foothill grassland present.
Monterey spineflower *(Chorizanthe pungens* var. *pungens)*	FT/--/1B.2	Sandy openings in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland; elevation 3-450m. Blooming Period: April - June	Unlikely. No suitable sandy openings in Maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, or valley and foothill grassland habitats present.

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on the Project Site
Pale-yellow layia *(Layia heterotricha)*	--/--/1B.1	Cismontane woodland, pinyon and juniper woodland, valley and foothill grassland / alkaline or clay; elevation 300-1600m. Blooming Period: March - June	Unlikely. No suitable cismontane woodland, pinyon and juniper woodland, or valley and foothill grassland habitat on alkaline or clay substrate present. Outside of elevation range.
Pinnacles buckwheat *(Eriogonum nortonii)*	--/--/1B.3	Sandy sites in chaparral and valley and foothill grassland, often on recent burns; elevation 300-975m. Blooming Period: May - June	Unlikely. No suitable sandy sites in recent burns in chaparral or valley and foothill grassland habitats present. Outside of elevation range.
Robbin's nemocladus *Nemocladus secundiflorus*ssp. *Robbinsii*	--/--/1B.3	Chaparral, valley and foothill grassland. Dry, sandy or gravelly slopes. Openings. 360-1710 m. Blooming Period: April -June.	Unlikely. No suitable chaparral or valley and foothill grassland habitats present. Not within elevation range.
Santa Lucia bush-mallow *(Malacothamnus palmeri* var. *palmeri)*	--/--/1B.2	Chaparral. Dry rocky slopes, mostly near summits, but occasionally extending down canyons to the sea; elevation 60-365m. Blooming Period: May - July	Unlikely. No suitable chaparral habitats present.
Shining navarretia *(Navarretia nigelliformis* ssp. *radians)*	--/--/1B.2	Cismontane woodland, valley and foothill grassland, and vernal pools; elevation 200-1000m. Blooming Period: May - July	Unlikely. No suitable woodland, grassland, or vernal pool habitat. Outside of elevation range.
Western Heermann's buckwheat *(Eriogonum heermannii* var. *occidentale)*	--/--/1B.2	Openings in cismontane woodland, often on serpentine alluvium or on roadsides; rarely on clay or shale slopes; elevation 410-805m. Blooming Period: July - October	Unlikely. No suitable woodland or serpentine alluvium, clay or shale slopes. Outside of elevation range.

SOURCE: CDFW 2024, CNPS 2024

NOTE: Status Codes:

Federal (USFWS)

FE: Listed as Endangered under the Federal Endangered Species Act.

FT: Listed as Threatened under the Federal Endangered Species Act.

FC: A Candidate for listing as Threatened or Endangered under the Federal Endangered Species Act.

FSC: Species of Special Concern.

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State (CDFW)

SE: Listed as Endangered under the California Endangered Species Act.

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SFP: Fully Protected species under the California Fish and Game Code.
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CNPS Rare Plant Ranks and Threat Code Extensions
1B: Plants that are considered Rare, Threatened, or Endangered in California and elsewhere.
2B: Plants that are considered Rare, Threatened, or Endangered in California, but more common elsewhere.
.1: Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).
.2: Fairly endangered in California (20-80% occurrences threatened).
.3: Not very endangered in California (<20% of occurrences threatened or no current threats known).

Appendix C Special-Status Wildlife Species with the Potential to Occur in the Project Vicinity

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
American badger *(Taxidea taxus)*	--/SSC	Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats. Need sufficient food and open, uncultivated ground with friable soils to dig burrows. Prey on burrowing rodents.	Unlikely. Suitable habitat possibly before widespread development of the area. Project site not large enough to provide habitat for species.
American peregrine falcon *(Falco peregrinus anatum)*	FD/SD,SFP	Occurs near wetlands, lakes, rivers, or other waters on cliffs, banks, dunes, mounds, and human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	Unlikely. Suitable waters not present. No suitable nesting places sites within parcel.
Bank swallow *(Riparia riparia)*	--/ST	Highly colonial species that nests in alluvial soils along rivers, streams, lakes, and ocean coasts. Nesting colonies only occur in vertical banks or bluffs of friable soils at least one meter tall, suitable for burrowing with some predator deterrence values. Breeding colony present in Salinas River.	Unlikely. Suitable alluvial soils along stream banks for colonial nesting not present.
Big-eared kangaroo rat *(Dipodomys venustus elephantinus)*	--/SSC	Chaparral-covered slopes of the southern part of the Gabilan Range, in the vicinity of the Pinnacles. Forages under shrubs and in the open. Burrows for cover and for nesting.	Unlikely. Suitable chaparral covered slopes with burrows for cover and nesting not present.
Burrowing owl *(Athene cunicularia)*	--/SSC	Open, dry, annual or perennial grasslands, desert, or scrubland, with available small mammal burrows.	Unlikely. Suitable grasslands with small mammal burrows not present.
California condor *(Gymnogyps californianus)*	FE/SE	Requires vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	Unlikely. Suitable nesting sites in cliffs and rocky walls not present. Possible flyover due to proximity to nesting habitat in the Pinnacles National Monument.
California red-legged frog *(Rana draytonii)*	FT/SSC	Rivers, creeks, and stock ponds with pools and overhanging vegetation. Requires dense, shrubby or emergent riparian vegetation, and prefers short riffles and pools with slow-moving, well-oxygenated water. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter.	Unlikely. No suitable breeding ponds within the vicinity. No burrows on site for upland overwintering sites. Many barriers between the site and potential breeding sites.
California tiger salamander *(Ambystoma californiense)*	FT/ST	Grasslands and oak woodlands near seasonal pools and stock ponds in central and coastal California. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter. Requires seasonal water sources that persist into late March for breeding habitat.	Unlikely. No suitable breeding ponds within the vicinity. No burrows on site for upland overwintering sites. Many barriers between the site and potential breeding sites.
Coast horned lizard *(Phrynosoma blainvillii)*	--/SSC	Arid grassland and scrubland habitats; prefers lowlands along sandy washes with scattered low bushes. Requires open areas for sunning, bushes for cover, patches of loose soil for burrowing, and abundant supply of ants and other insects for feeding.	Unlikely. No suitable sandy grassland or scrubland habitats with loose soil present.
Coast Range newt *(Taricha torosa)*	--/SSC	Coastal drainages; lives in terrestrial habitats and can migrate over 1 km to breed in ponds, reservoirs, and slow-moving streams.	Unlikely. No suitable coastal drainages present. No suitable ponds within 1 km.

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
Cooper's hawk *(Accipter cooperii)*	--/WL	Oak or riparian woodlands.	Unlikely. Not suitable oak or riparian woodlands present.
Crotch bumble bee *(Bombus crotchii)*	--/SCE	Open grassland and scrub habitats. Require flowering plants and suitable nesting sites. Documented food plants include *Asclepias* sp., *Chaenactis* sp., *Lupinus* sp., *Medicago* sp., *Phacelia* sp., and *Salvia* sp.	Low Probability. Marginal habitat present in open undeveloped areas, and urban ornamental landscaping. Few nectar plants onsite. Minimal nesting sites within burrows, vegetation tufts, and construction material piles.
Foothill yellow-legged frog *(Rana boylii)*	--/SSC	Partly shaded, shallow streams and riffles with rocky substrate in a variety of habitats. Requires at least some cobble-sized substrate for egg-laying and 15 weeks of available water to attain metamorphosis.	Unlikely. No suitable shallow streams with rocky substrate present.
Golden eagle *(Aquila chrysaetos)*	--/SFP	Rolling foothill mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range. Also uses large trees in open areas.	Unlikely. No suitable cliff walled canyons for nesting present.
Hoary bat *(Lasiurus cinereus)*	--/SSC	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Low probability. Suitable trees for nesting. Marginal habitat for foraging present.
Least Bell's vireo *(Vireo bellii pusillus)*	FE/SE	Summer resident of southern and central California in riparian habitats below 2,000 feet in elevation. Often nests in large shrubs, along margins of bushes or on twigs projecting into pathways.	Unlikely. No suitable riparian habitats with shrubs for nesting.
Long-eared myotis *(Myotis evotis)*	--/--	Found in all brush, woodland and forest habitats from sea level to about 9,000 feet. Prefers coniferous woodlands and forests. Nursury colonies in buildings, crevices, spaces under bark and snags. Caves used primarily as night roosts.	Unlikely. No suitable brush in woodland and forested habitats.
Long-eared owl *(Asio otus)*	--/SSC	Riparian bottomlands grown to tall willows and cottonwoods. Also prefers belts of live oak paralleling stream courses. Requires adjacent open land productive with mice and the presence of old nests of crows, hawks, or magpies for breeding.	Unlikely. No suitable riparian bottomlands with adjacent open landscapes present.
Monterey hitch *(Lavinia exilicauda harengus)*	--/SSC	Inhabits slow warm water, including lakes and quiet stretches of rivers. Sometimes found in cool and clear low-gradient streams, hiding among aquatic vegetation in sandy runs or pools.	Unlikely. No suitable slow warm waters.
Northern california legless lizard *(Anniella pulchra)*	--/SSC	Sandy or loose loamy soils under sparse vegetation, moist soils. Anniella pulchra is traditionally split into two subspecies: *A. pulchra pulchra* (silvery legless lizard) and *A. pulchra nigra* (black legless lizard), but these subspecies are typically no longer recognized.	Unlikely. No suitable loose loamy soils under sparce vegetation.
Pallid bat *(Antrozous pallidus)*	--/SSC	Deserts, grasslands, scrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures.	Low probability. Marginal roosting habitat in barn and decaying trees onsite,

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
Pinnacles optioservus riffle beetle *(Optioservus canus)*	--/--	Aquatic, found on rocks and in gravel of riffles in cool, swift, clear streams.	Unlikely. No suitable aquatic habitats present.
Pinnacles shieldback katydid *(Idiostatus kathleenae)*	--/--	Only known from Pinnacles National Monument.	Unlikely. Outside of known occurrence area.
Prairie falcon *(Falco mexicanus)*	--/SSC	Nesting Habitats. Open terrain, either level or hilly breeding sites located on cliffs. Forages far distances, including to marshlands and ocean shores.	Unlikely. No suitable nesting habitat in open terrain, or hilly cliff sites.
Salinas pocket mouse *(Perognathus inornatus psammophilus)*	--/SSC	Annual grassland and desert shrub communities in the Salinas Valley. Prefers fine-textured, sandy, friable soils. Burrows for cover and nesting.	Unlikely. No suitable grassland or desert shrub community with sandy friable soils and burrows.
San Joaquin coachwhip *(Masticophis flagellum ruddocki)*	--/SSC	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Requires mammal burrows for refuge and oviposition sites.	Unlikely. No suitable grassland or saltbush scrub habitat. Outside the San Joaquin Valley. Minimal burrows.
San Joaquin kit fox *(Vulpes macrotis mutica)*	FE/ST	Annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose-textured sandy soils for burrowing, and suitable prey base.	Unlikely. No suitable grasslands with shrubby vegetation present. No loose-textured sandy soils for burrowing. Surrounded by development.
Sharp-shinned hawk *(Accipiter striatus)*	--/SSC	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 275 feet of water.	Unlikely. No suitable ponderosa pine, black oak, riparian deciduous, or mixed conifer habitats. Not adjacent to water.
Steelhead *(Oncorhynchus mykiss irideus)*	FT/--	Coastal stream with clean spawning gravel. Requires cool water and pools. Needs migratory access between natal stream and ocean.	Unlikely. No suitable coastal streams present.
Townsend's big-eared bat *(Corynorhinus townsendii)*	--/SCT	Inhabits a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Unlikely. Marginal open habitat with buildings or trees for roosting. Not close to mesic site.
Tricolored blackbird *(Agelaius tricolor)*	--/SE	Areas adjacent to open water with protected nesting substrate, which typically consists of dense, emergent freshwater marsh vegetation.	Unlikely. No suitable open water with emergent vegetation for nesting.
Vernal pool fairy shrimp *(Branchinecta lynchi)*	FT/--	Endemic to the grasslands of the Central Valley, Central Coast Mtns., and South Coast Mtns. in astatic rain-filled pools. Inhabits small, clear-water sandstone depression pools and grass swale, earth slump, or basalt-flow depression pools.	Unlikely. No suitable vernal pools present.
Western bumble bee (*Bombus occidentalis*)	--/CE	Meadows and grasslands with flowering plants; can also be found in natural areas within urban environments.	Unlikely. Marginal habitat present in open undeveloped areas, and urban ornamental landscaping. Flowering plants present throughout grow period, albeit nonnative. However, current CA populations of western bumblebee are largely restricted to high elevation sites (Xerces Society 2012)

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
Western mastiff bat *(Eumops perotis californicus)*	--/SSC	Many open, semi-arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Low probability. Marginal open habitat with buildings or trees for roosting.
Western pond turtle *(Emys marmorata)*	FC/SSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs basking sites (such as rocks or partially submerged logs) and suitable upland habitat for egg-laying (sandy banks or grassy open fields).	Unlikely. No suitable ponds, marshes, rivers, or streams with aquatic vegetation.
Western red bat *(Lasiurus blossevillii)*	--/SSC	Roosts primarily in trees, 2-40 feet above the ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Unlikely. No suitable mixed conifer forest.
Western spadefoot *(Spea hammondii)*	--/SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands, breeds in winter and spring (January - May) in quiet streams and temporary pools.	Unlikely. No suitable grassland habitat with streams and temporary pools present.
White-tailed kite *(Elanus leucurus)*	--/SFP	Rolling foothills and valley margins with scattered oaks, and river bottomlands or marshes next to deciduous woodlands. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Unlikely. No suitable open habitats close to marshes or meadows.
Yellow-billed cuckoo *(Coccyzus americanus)*	FT/SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Unlikely. No suitable riparian forests present.

SOURCE: CDFW 2024, CNPS 2024

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.3: Not very endangered in California (<20% of occurrences threatened or no current threats known).

Historical Evaluation

D

APPENDIX

Archaeological Resource Management

Robert R. Cartier, Ph.D.
496 North 5th Street
San Jose, CA 95112
Telephone (408) 295-1373
Fax (408) 286-2040
email: armcartier@netscape.net

EMC Planning Group Inc.
ATTN: Mr. Ron Sissem
601 Abrego Street
Monterey, CA 93940

September 12, 2024

Dear Mr. Sissem:

As per your request our firm is submitting the enclosed historical evaluation of the residence at 315 Orchard Lane in the City of Soledad. Based upon the requirements of the City of Soledad, a methodology was designed which included the following services:

- a State Historic Resources Evaluation form (DPR 523) for the structures
- evaluation of the structure using the criteria of the National Register of Historic Places and the California Register

Based upon visual evaluation and available documentation, the residence at 315 Orchard Lane was constructed in 1950. The structure is not currently listed on the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), or locally in the City of Soledad. In addition, the property does not appear to be eligible for listing in any of these registers. Thus no further recommendations are being made.

Sincerely,

Robert Cartier, Ph.D.
Principal Investigator

RC/dj

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____
Other Listings _____
Review Code _____ **Reviewer** _____ **Date** _____

Page 1 **of** 14 **Resource Name or #** 315 Orchard Lane

P1. Other Identifier: 321 Orchard Lane

P2. Location: ____ **Not for Publication** _x_ **Unrestricted** ***a. County** Monterey

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Soledad, CA **Date:** 2021 **T** ; **R** ; **1/4 of** **1/4 of Sec** ; **BM**

c. Address: 315 Orchard Lane **City:** Soledad **Zip:** 93960

d. UTM: 10S 6 50 930mE/40 32 692mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number: 022-281-005

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

The residence at 315 Orchard Lane is a single story minimal traditional style home in fair condition. The home is constructed in a shortened "T" shape, with the long side running parallel to Orchard lane and a centrally placed wing extending perpendicular and towards the street. A garage, originally detached, has been connected to the main residence via multiple informal additions. The roof is cross-gabled and surfaced with wooden shingles. The eaves are somewhat narrow, and open, with exposed rafters. Exterior walls are surfaced primarily in broad horizontal wooden siding, with vertical wooden siding in a board-and-batten configuration beneath the gables, and corrugated metal sheeting on the informal additions.

See Continuation Sheet Page 4

***P3b. Resource Attributes:** (List attributes and codes.) HP05

***P4. Resources Present:** _x_ Building __Structure __Object __District __Element of District __Site __Other

P5a. Photo or drawing (Photo required for buildings, structures, objects.)

P5b. Description of Photo: (View, date, accession #)
View of the front façade of the residence at 315 orchard Lane.

***P6. Date Constructed/Age and Sources**

Historic X Prehistoric Both

Constructed 1950 based upon County of Monterey Assessor's Records

***P7. Owner and Address:**

Nino Family Limited Partnership
PO Box 1180
Tres Pinos, CA 95075

***P8. Recorded by:**

Robert Cartier
Archaeological Resource Management
496 North 5th Street
San Jose, CA 95112

***P9. Date Recorded:** 9/12/2024

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite Survey Report and other sources, or enter "none.")

None

* Attachments: __None _x_Location Map __Sketch Map _x_Continuation Sheet _x_Building, Structure, and Object Record __Archaeological Record __District Record __Linear Feature Record __Milling Station Record __Rock Art Record __Artifact Record __Photographic Record __Other (List):

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # _____
HRI # _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 **of** 14 ***NRHP Status Code** _____

***Resource Name or #** (Assigned by recorder) 315 Orchard Lane

B1. Historic Name: Handley Residence

B2. Common Name: 315 Orchard Lane

B3. Original Use: Residence **B4. Present Use:** Residence

***B5. Architectural Style:** Minimal Traditional

***B6. Construction History:** (Construction date, alterations, and date of alterations)

Based on visual evaluation and available documentation, the residence at 315 Orchard Lane was originally constructed in 1950. Since its original construction, multiple additions have been made to the rear and sides of the structure, significantly altering its footprint and massing.

***B7. Moved?** x **No** ___ **Yes** ___ **Unknown** **Date:** _____ **Original Location:** _____

***B8. Related Features:**

Also present on the property are two smaller residences of modern construction (to the rear and north of the subject structure, respectively) along with nineteen mobile homes (the Almond Acres Mobile Home Park). These structures were not evaluated as part of this report.

B9a. Architect: unknown **b. Builder:** unknown

***B10. Significance: Theme** architecture and shelter **Area** Soledad, CA

Period of Significance Post-War **Property Type** Private Motel **Applicable Criteria** N/A

The subject property makes up a portion of Subdivision A of Lot 2 as shown on the "Map of the Partition of Lots 2 and 3 of the San Vicente Ranch, Monterey County, California" filed on April 6, 1920 in Volume 1 of Surveys, Page 102. By the time of the construction of the residence at 315 Orchard Lane, the subject property was owned by Forrest Samuel Handley and his wife Irene Bertha Handley. Forrest S. Handley was born on July 31, 1918 in Long Beach California. Hiis wife Irene B. Handley (nee Persson) was born on April 11, 1916 in Los Banos, California. They married in 1937, and moved to the Salinas Valley to farm in 1944. On May 11, 1981 they granted the property to themselves as trustees of the Handley Family Trust (Assessor's Doc# 16619). Irene Handley died on July 1, 2003. On January 12, 2005 the property was transferred to Handley Ranch LP (Assessor's Doc# 2005003958).. Forrest S. Handley died on September 15, 2007. On July 29, 2021 the property was granted by Handley Ranch LP to the Nino Family Limited Partnership, who are the current owners (Assessor's Doc# 2021051150).

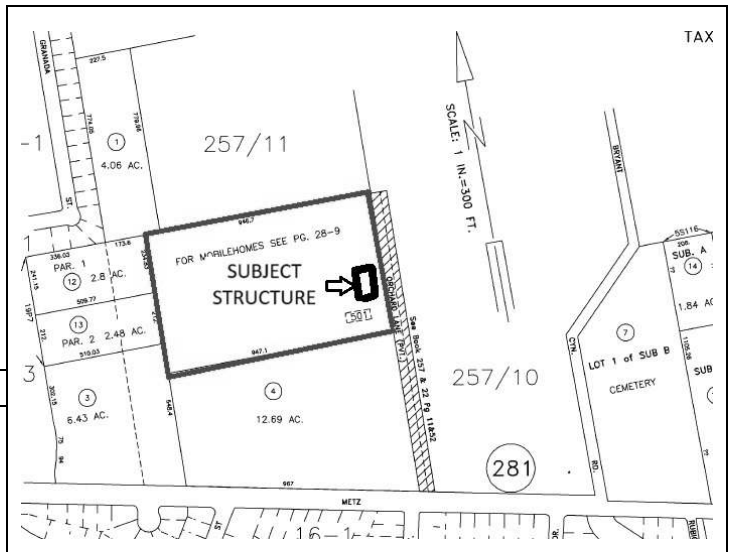
See Continuation Sheet Page 4

B11. Additional Resource Attributes: (List attributes and codes) HP02

***B12. References:**

See Continuation Sheet Page 6

B13. Remarks:



***B14. Evaluator:** Robert R. Cartier

***Date of Evaluation:** 9/12/2024

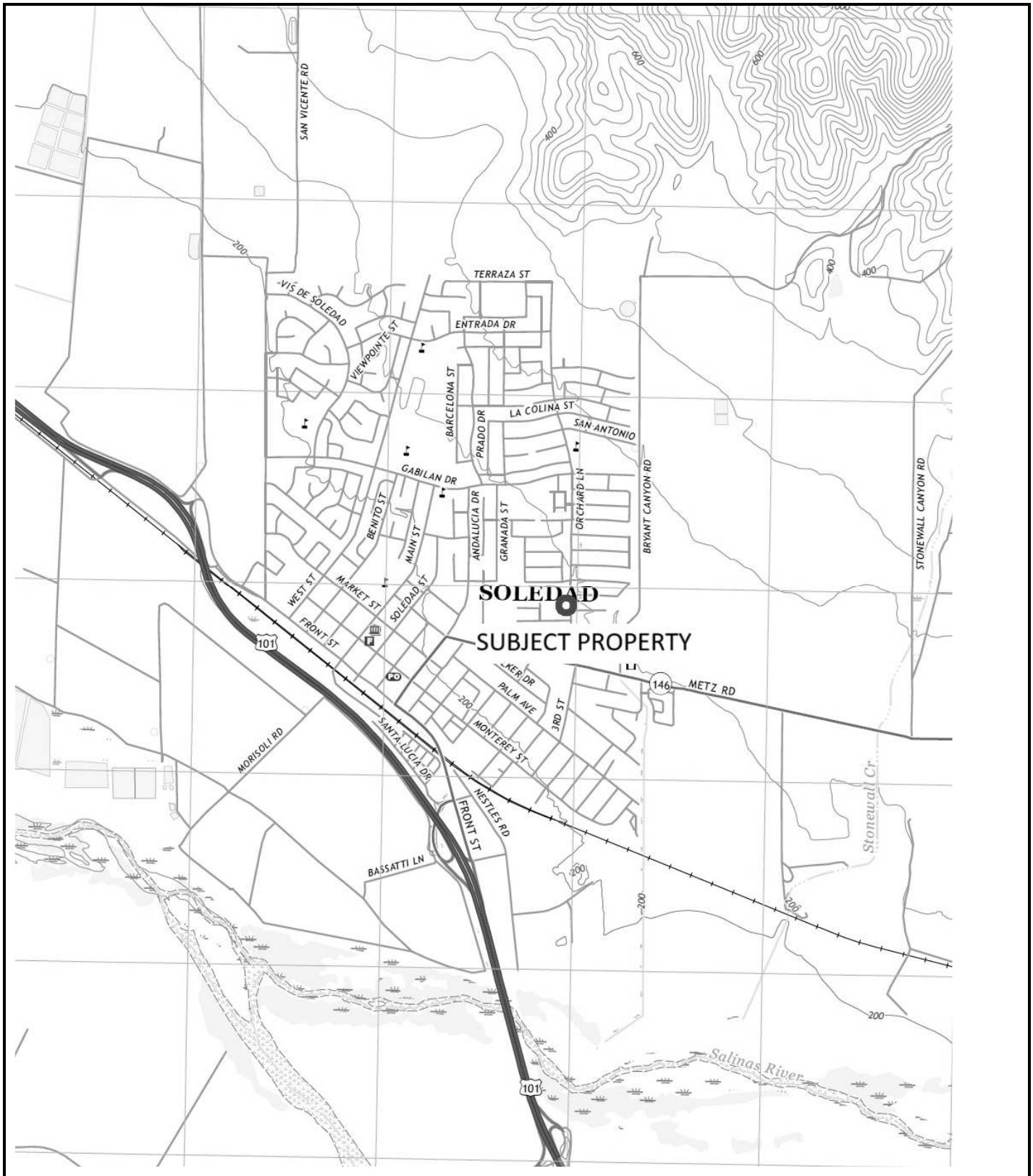
(This space reserved for official comments.)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # _____
HRI # _____
Trinomial _____

Page 3 **of** 14 **Resource Name or #** (Assigned by recorder) 315 Orchard Lane
***Map Name:** Soledad, CA ***Scale:** 7.5 Minute ***Date of Map**: 2021



Continued from P3a:

Fenestration is mostly aluminum framed, primarily in a sliding configuration. The front façade features a long porch area to the south of the central wing, supported by undecorated wooden beams, and an informal covered entry area surfaced with metal sheeting between the central wing and the garage. A brick chimney is centrally placed along the southern façade.

Continued from B10:

California Register of Historic Resources Criteria

A cultural resource is considered "significant" if it qualifies as eligible for listing in the California Register of Historic Resources (CRHR). Properties that are eligible for listing in the CRHR must meet one or more of the following criteria:

1. Association with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
2. Association with the lives of persons important to local, California, or national history;
3. Embodying the distinctive characteristics of a type, period, region, or method of construction, or representing the work of a master, or possessing high artistic values; or
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

A property may be automatically listed in the CRHR if it is formally determined eligible for the National Register of Historic Places. Properties that are formally determined eligible for the NRHP are those that are designated as such through one of the federal preservation programs administered by the California Office of Historic Preservation (i.e., the National Register, Tax Certification, and Section 106 review of federal undertakings).

The CRHR interprets the integrity of a cultural resource based upon its physical authenticity. An historic cultural resource must retain its historic character or appearance and thus be recognizable as an historic resource. Integrity is evaluated by examining the subject's location, design, setting, materials, workmanship, feeling, and association. If the subject has retained these qualities, it may be said to have integrity. It is possible that a cultural resource may not retain sufficient integrity to be listed in the National Register of Historic Places yet still be eligible for listing in the CRHR. If a cultural resource retains the potential to convey significant historical/scientific data, it may be said to retain sufficient integrity for potential listing in the CRHR.

The residence at 315 Orchard Lane is not currently listed on the CRHR. In addition, the structure does not appear to qualify as potentially eligible under any of the criteria listed above. The home is not associated with any known significant historical events, thus it does not appear to qualify as potentially eligible under criterion 1. No historically significant persons appear to have been associated with the property, thus it does not appear to qualify as potentially eligible under criterion 2. Although the home is an example of the Minimal Traditional style, is not an exceptional or unusual example of this style. Thus it does not appear to qualify as potentially eligible under criterion 3. In addition, the structure does not appear to have the potential to yield significant historical information, and thus does not appear eligible under criterion 4.

National Register Criteria

The National Register of Historic Places was first established in 1966, with major revisions in 1976. The register is set forth in 36 CFR 60 which establishes the responsibilities of the State Historic Preservation Officers (SHPO), standards for their staffs and review boards, and describes the statewide survey and planning process for historic preservation. Within this regulation guidelines are set forth concerning the National Register of Historic Places (36 CFR 60.6). In addition, further regulations are found in 36 CFR 63-66, 800, and Bulletin 15 which define procedures for determination of eligibility, identification of historic properties, recovery, reporting, and protection procedures. The National Register of Historic Places was established to recognize resources associated with the accomplishments of all peoples who have contributed to the country's history and heritage. Guidelines were designed for Federal and State agencies in nominating cultural resources to the National Register. These guidelines are based upon integrity and significance of the resource. Integrity applies to specific items such as location, design, setting, materials, workmanship, feeling, and association. Quality of significance in American history, architecture, archaeology, engineering and culture is present in resources that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet at least one of the following criteria:

a. that are associated with events that have made a significant contribution to broad patterns of our history:
b. that are associated with the lives of persons significant in our past;
c. that embody distinctive characteristics of type, period, or method of construction, or that represent the work of master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction;
d. that have yielded, or are likely to yield, information important in prehistory or history.

Integrity is defined in Bulletin 15: How to Apply the National Register Criteria for Evaluation, (U.S. Department of the Interior, National Park Service 1982) as:

> the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period. If a property retains the physical characteristics it possessed in the past then it has the capacity to convey association with historical patterns or persons, architectural or engineering design and technology, or information about a culture or peoples.

There are also seven aspects of integrity which are used. These aspects are:

1. location
2. design
3. setting
4. materials
5. workmanship
6. feeling
7. association

The structure at 315 Orchard Lane is not currently listed on the National Register of Historic Places. In addition, the property does not appear to be potentially eligible for listing in this register. The home is not associated with significant historic events or persons, thus it does not appear to be potentially eligible for listing under criteria A or B. Although built in the Minimal Traditional style, it is not a particularly exceptional or unusual example of this style, thus the structure does not appear to qualify as eligible for the NRHP under criterion C. The property does not appear to be likely to yield information important in prehistory or history, thus it does not appear to qualify as potentially eligible under criterion D.

Local Designation Criteria

The City of Soledad Municipal Code (Chapter 17.45 Historical Resources) lists the following Eligibility Criteria for Historic Resource Determination:

In making a determination whether a structure, property feature, residential or commercial area or neighborhood shall be designated a historic resource, the historic resources commission shall find that the building, structure or improvement, or any combination thereof in a site, place, or district, is at least fifty years old and meets one or more of the following criteria:

1.It possesses integrity of location, design, setting, materials, workmanship and association;

2.It exemplifies or reflects special elements of the city's cultural, social, economic, civic, aesthetic, archaeological, architectural or engineering history;

3.It is identified with persons or events significant in local, regional, state, or national history;

4.It embodies distinctive characteristics of an architectural style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;

5.It is representative of the work of a notable builder, designer, or architect;

6.It contributes to the significance of an historic area by being a geographically definable area, possessing a concentration of not less than fifty percent of historic or scenic properties or thematically-related grouping of properties which contribute to each other and are unified aesthetically by plan or physical development; or

7.It is one of the few remaining examples in the region, state or nation possessing distinguishing characteristics of an architectural or historic type or specimen.

The residence at 315 Orchard Lane is not currently designated as a local historical resource in the City of Soledad. In addition, it does not appear to be eligible for local listing. The structure is over 50 years of age. However, it does not appear to possess significant integrity of location, design, setting, materials, workmanship and association and thus does not appear eligible for listing under Criterion 1. It does not exemplify significant elements of the City's history; thus, it does not appear eligible for listing under Criterion 2. The residence is not associated with significant persons or events; thus it does not appear eligible for listing under Criterion 3. Although an example of Minimal Traditional architecture, it is not a notable example of this style and does not appear eligible for listing under Criterion 4. It is not known to be the work of a notable architect or builder, and thus does not appear eligible under Criterion 5. It does not appear to contribute to the significance of an historic area, thus it does not appear eligible under Criterion 6. It is not one of the few remaining examples of its architectural style, thus it does not appear to be eligible under Criterion 7.

Continued from B12:

Assessor's Office, County of Monterey
2024 Record search of assessed value and associated taxes for the property at 315 Orchard Lane.

Hoover, M. et al
1966 *Historic Spots in California.* Stanford University Press, Stanford California.

McAlester, V. and L. McAlester
1997 *A Field Guide to American Houses*. Alfred A. Knopf, New York.

Monterey Herald
2007 Obituary for Forrest S. Handley, published October 5, 2007.

Recorder's Office, County of Monterey
2024 Record search of recorded information for the property at 315 Orchard Lane

US Department of the Interior
1990 The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings

US Department of the Interior
1982 Bulletin 15 - "How to Apply the National Register Criteria for Evaluation."

Photo 1: View of the front façade of the residence at 315 Orchard Lane.

Photo 2: View of the semi-detached garage.

Photo 3: View of the covered entry adjacent to the garage.

Photo 4: View of the centrally placed front-gabled wing.

Photo 5: View of the southern portion of the front façade.

Photo 6: Detail of the open eaves with exposed rafters.

Photo 7: View of the southern façade of the residence.

Photo 8: View of the southern façade showing brick chimney.

Photo 9: View along the rear (western) façade.

Photo 10: Oblique view of the rear façade.

Photo 11: View of informal corrugated metal sheeting carport.

Photo 12: View of the northern façade showing carport addition.

Photo 13: View of the modern residence to the rear of the home.

Photo 14: View of smaller unit north of the main residence.

EMFAC Results

APPENDIX E

APPENDIX E
EMFAC2021
Almond Acres, Soledad California
2028 Fuel Demand

Vehicle Class	Fuel	Process	Kgal/day
All Other Buses	Dsl	IDLEX	2.33E-06
All Other Buses	Dsl	RUNEX	0.000241
LDA	Dsl	RUNEX	0.000193
LDT1	Dsl	RUNEX	1.62E-06
LDT2	Dsl	RUNEX	0.000143
LHD1	Dsl	IDLEX	2.67E-05
LHD1	Dsl	RUNEX	0.004436
LHD2	Dsl	IDLEX	1.73E-05
LHD2	Dsl	RUNEX	0.002218
MDV	Dsl	RUNEX	0.000626
MH	Dsl	RUNEX	0.00013
Motor Coach	Dsl	IDLEX	3.33E-05
Motor Coach	Dsl	RUNEX	0.000736
PTO	Dsl	RUNEX	0.000721
SBUS	Dsl	IDLEX	7.10E-05
SBUS	Dsl	RUNEX	0.000798
T6 CAIRP Class 4	Dsl	IDLEX	6.56E-08
T6 CAIRP Class 4	Dsl	RUNEX	8.13E-06
T6 CAIRP Class 5	Dsl	IDLEX	8.70E-08
T6 CAIRP Class 5	Dsl	RUNEX	1.12E-05
T6 CAIRP Class 6	Dsl	IDLEX	2.91E-07
T6 CAIRP Class 6	Dsl	RUNEX	2.85E-05
T6 CAIRP Class 7	Dsl	IDLEX	4.77E-07
T6 CAIRP Class 7	Dsl	RUNEX	0.000169
T6 Instate Delivery Class 4	Dsl	IDLEX	1.12E-05
T6 Instate Delivery Class 4	Dsl	RUNEX	0.000212
T6 Instate Delivery Class 5	Dsl	IDLEX	5.27E-06
T6 Instate Delivery Class 5	Dsl	RUNEX	9.75E-05
T6 Instate Delivery Class 6	Dsl	IDLEX	1.82E-05
T6 Instate Delivery Class 6	Dsl	RUNEX	0.000344
T6 Instate Delivery Class 7	Dsl	IDLEX	4.02E-06
T6 Instate Delivery Class 7	Dsl	RUNEX	0.000112
T6 Instate Other Class 4	Dsl	IDLEX	4.30E-05
T6 Instate Other Class 4	Dsl	RUNEX	0.000892
T6 Instate Other Class 5	Dsl	IDLEX	7.64E-05
T6 Instate Other Class 5	Dsl	RUNEX	0.001674
T6 Instate Other Class 6	Dsl	IDLEX	5.82E-05
T6 Instate Other Class 6	Dsl	RUNEX	0.001242
T6 Instate Other Class 7	Dsl	IDLEX	4.83E-05
T6 Instate Other Class 7	Dsl	RUNEX	0.000972
T6 Instate Tractor Class 6	Dsl	IDLEX	3.41E-07
T6 Instate Tractor Class 6	Dsl	RUNEX	9.52E-06
T6 Instate Tractor Class 7	Dsl	IDLEX	1.76E-05

Fuel Type	Demand
Diesel	
Kgal/day	0.04
KGal/yr	13.93
Gas	
Kgal/day	0.18
KGal/yr	65.76
Hybrid	
kgal/day	0.001
Kgal/yr	0.538
TOTAL	
KGal/yr	80.2
Gal/yr	80228.3
Mileage Check:	
VMT/yr	1,845,629
mpg	23

APPENDIX E
EMFAC2021
Almond Acres, Soledad California
2028 Fuel Demand

T6 Instate Tractor Class 7	Dsl	RUNEX	0.000479
T6 OOS Class 4	Dsl	IDLEX	3.48E-08
T6 OOS Class 4	Dsl	RUNEX	4.27E-06
T6 OOS Class 5	Dsl	IDLEX	4.60E-08
T6 OOS Class 5	Dsl	RUNEX	5.88E-06
T6 OOS Class 6	Dsl	IDLEX	1.55E-07
T6 OOS Class 6	Dsl	RUNEX	1.50E-05
T6 OOS Class 7	Dsl	IDLEX	2.32E-07
T6 OOS Class 7	Dsl	RUNEX	0.000103
T6 Public Class 4	Dsl	IDLEX	4.73E-06
T6 Public Class 4	Dsl	RUNEX	6.08E-05
T6 Public Class 5	Dsl	IDLEX	6.67E-06
T6 Public Class 5	Dsl	RUNEX	8.71E-05
T6 Public Class 6	Dsl	IDLEX	5.72E-06
T6 Public Class 6	Dsl	RUNEX	7.71E-05
T6 Public Class 7	Dsl	IDLEX	1.31E-05
T6 Public Class 7	Dsl	RUNEX	0.000223
T6 Utility Class 5	Dsl	IDLEX	1.73E-06
T6 Utility Class 5	Dsl	RUNEX	4.82E-05
T6 Utility Class 6	Dsl	IDLEX	3.28E-07
T6 Utility Class 6	Dsl	RUNEX	9.07E-06
T6 Utility Class 7	Dsl	IDLEX	3.70E-07
T6 Utility Class 7	Dsl	RUNEX	1.25E-05
T7 CAIRP Class 8	Dsl	IDLEX	0.000364
T7 CAIRP Class 8	Dsl	RUNEX	0.004727
T7 NNOOS Class 8	Dsl	IDLEX	0.000393
T7 NNOOS Class 8	Dsl	RUNEX	0.005523
T7 NOOS Class 8	Dsl	IDLEX	0.000171
T7 NOOS Class 8	Dsl	RUNEX	0.002043
T7 Other Port Class 8	Dsl	IDLEX	3.28E-13
T7 Other Port Class 8	Dsl	RUNEX	1.26E-11
T7 POAK Class 8	Dsl	IDLEX	1.08E-05
T7 POAK Class 8	Dsl	RUNEX	0.000221
T7 POLA Class 8	Dsl	IDLEX	3.36E-13
T7 POLA Class 8	Dsl	RUNEX	8.57E-12
T7 Public Class 8	Dsl	IDLEX	2.74E-05
T7 Public Class 8	Dsl	RUNEX	0.000681
T7 Single Concrete/Transit Mix Class 8	Dsl	IDLEX	1.40E-05
T7 Single Concrete/Transit Mix Class 8	Dsl	RUNEX	0.00037
T7 Single Dump Class 8	Dsl	IDLEX	3.24E-05
T7 Single Dump Class 8	Dsl	RUNEX	0.000664
T7 Single Other Class 8	Dsl	IDLEX	9.24E-05
T7 Single Other Class 8	Dsl	RUNEX	0.001794
T7 SWCV Class 8	Dsl	IDLEX	1.09E-05

APPENDIX E
EMFAC2021
Almond Acres, Soledad California
2028 Fuel Demand

T7 SWCV Class 8	Dsl	RUNEX	0.000756
T7 Tractor Class 8	Dsl	IDLEX	0.000146
T7 Tractor Class 8	Dsl	RUNEX	0.001967
T7 Utility Class 8	Dsl	IDLEX	1.27E-06
T7 Utility Class 8	Dsl	RUNEX	5.98E-05
UBUS	Dsl	RUNEX	0.000485
LDA	Gas	RUNEX	0.067804
LDA	Gas	STREX	0.002097
LDT1	Gas	RUNEX	0.007277
LDT1	Gas	STREX	0.000266
LDT2	Gas	RUNEX	0.04406
LDT2	Gas	STREX	0.00139
LHD1	Gas	IDLEX	3.85E-05
LHD1	Gas	RUNEX	0.009908
LHD1	Gas	STREX	0.000124
LHD2	Gas	IDLEX	5.64E-06
LHD2	Gas	RUNEX	0.001383
LHD2	Gas	STREX	1.55E-05
MCY	Gas	RUNEX	0.000356
MCY	Gas	STREX	3.51E-05
MDV	Gas	RUNEX	0.039233
MDV	Gas	STREX	0.00131
MH	Gas	RUNEX	0.000554
MH	Gas	STREX	1.02E-07
OBUS	Gas	IDLEX	2.28E-06
OBUS	Gas	RUNEX	0.000652
OBUS	Gas	STREX	4.00E-06
SBUS	Gas	IDLEX	2.48E-05
SBUS	Gas	RUNEX	0.000678
SBUS	Gas	STREX	2.74E-06
T6TS	Gas	IDLEX	9.96E-06
T6TS	Gas	RUNEX	0.002349
T6TS	Gas	STREX	1.80E-05
T7IS	Gas	RUNEX	4.48E-06
T7IS	Gas	STREX	2.05E-08
UBUS	Gas	RUNEX	0.000563
UBUS	Gas	STREX	1.40E-06
LDA	Phe	RUNEX	0.001118
LDA	Phe	STREX	5.11E-05
LDT1	Phe	RUNEX	6.51E-06
LDT1	Phe	STREX	3.39E-07
LDT2	Phe	RUNEX	0.000164
LDT2	Phe	STREX	9.26E-06
MDV	Phe	RUNEX	0.000117

MDV	Phe	STREX	8.11E-06

Geotechnical Report

APPENDIX F

GEOTECHNICAL ENGINEERING REPORT
ALMOND ACRES RESIDENTIAL DEVELOPMENT
311 ORCHARD LANE
APN 022-281-055
SOLEDAD, CALIFORNIA

March 22, 2024

Prepared for:

Mr. Mike Nino
Nino Homes
P.O. Box 1180
Tres Pinos, CA 95075

Prepared by:

Earth Systems Pacific
1514 Moffett Street, Suite A
Salinas, CA 93905

EARTH SYSTEMS
1514 Moffett Street, Suite A | Salinas, CA 95023 | (831) 240-4624 | www.earthsystems.com

March 22, 2024 File No.: 306546-001

Mr. Mike Nino
Nino Homes
P.O. Box 1180
Tres Pinos, CA 95075

PROJECT: ALMOND ACRES RESIDENTIAL DEVELOPMENT
311 ORCHARD LANE
APN 022-281-005
SOLEDAD, CALIFORNIA

SUBJECT: Preliminary Geotechnical Engineering Report

REF.: Proposal to Prepare a Preliminary Geotechnical Engineering Report, Almond Acres Residential Development, 311 Orchard Lane (APN 022-281-005), Soledad, California, by Earth Systems Pacific, dated January 29, 2024

Dear Mr. Nino:

In accordance with your authorization of the above referenced proposal, Earth Systems Pacific (Earth Systems) has prepared this preliminary geotechnical engineering report for use in the development of plans and specifications for the proposed residential development in Soledad, California. This report includes the results of our subsurface exploration and laboratory testing which formed the basis of our conclusions and presents preliminary recommendations related to the geotechnical engineering aspects of the project site. Recommendations for foundations, site preparation and grading, exterior flatwork, backfilling of utility trenches, post-construction management of site drainage and finish improvements, soil infiltration rate testing, and required observation and testing are presented herein.

We appreciate the opportunity to have provided services for this project and look forward to working with you again. Please contact this office if there are any questions concerning this report.

Sincerely,

Earth Systems Pacific

Antonio Hernandez-Abrego
Staff Engineer

Ajay Singh, GE 3057
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
AJAY SINGH
GE 3057
GEOTECHNICAL
STATE OF CALIFORNIA

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APPENDIX A

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APPENDIX C

1.0 INTRODUCTION

Site Setting

The subject property is a 12.47-acre rectangular shaped parcel (APN 022-281-005) located on the eastern side of Soledad, California. The site is bounded by recently developed single-family residences to the north, Orchard Lane to the east, Soledad Community Center to the west, Cedar Lane and San Vicente Elementary School to the south. The central portion of the site has a latitude of 36.4296°N and longitude of 121.3175°W. The location of the site and the main features of the general area are shown on the Site Vicinity Map (Figure 1).

Site Description

The subject property is relatively flat containing a trailer park to the southwest end, existing residences to the east, and predominately undeveloped land in the remaining areas. At the time of our investigation, there were several stockpiles of undocumented fill, and miscellaneous materials at the northwest end possibly from a construction staging area. Scattered trees along the perimeter of the trailer park, paved road, and existing residences were present. Short grasses were scattered across the undeveloped portion of the site.

Planned Development

Based on a review of the preliminary site plan provided by *Whitson Engineers* dated November 27, 2023, the proposed site development includes a 0.4-acre stormwater facility, a 16,522 square-foot apartment site, and 55-Lots for residential development. We assume the residences will be of wood-frame construction, with post-tensioned slab foundations. We anticipate the existing residences located in the eastern portion of the site will be demolished in preparation for development. Two intersecting roads will be constructed and have access to both Orchard Lane and Cedar Lane.

Scope of Services

The scope of work for the geotechnical engineering report included a site visit to evaluate access conditions for the drill rig required to perform subsurface exploration, a review of the published geologic literature, implementation of the subsurface exploration program to evaluate subsurface soil and groundwater conditions from a geotechnical engineering standpoint, testing

of selected samples collected from the borings drilled at the site to measure the pertinent physical and index properties, engineering analysis of the collected data, and preparation of this report. The engineering analysis and recommendations presented herein were based on our understanding of the proposed development at the subject site.

The report and recommendations are intended to comply with the considerations of Section 1803 of the California Building Code (CBC), 2022 Edition, and common geotechnical engineering practice in this area at this time under similar conditions. The tests were performed in general conformance with the noted ASTM procedures, as modified by common geotechnical practice in this area at this time under similar conditions.

Preliminary geotechnical recommendations for site preparation and grading, foundations, post-tensioned slab, exterior flatwork, utility trench backfill, site drainage and finish improvements, and geotechnical observation and testing are presented to guide the development of project plans and specifications. It is our intent that this report be used by the client to form the geotechnical basis of the design of the project as described herein, and in the preparation of plans and specifications.

Detailed evaluation of the site geology and potential geologic hazards, and analyses of the soil for mold or other microbial content, asbestos, percolation rates, corrosion potential, radioisotopes, hydrocarbons, or other chemical properties are beyond the scope of this report. This report also does not address issues in the domain of contractors such as, but not limited to, site safety, loss of volume due to stripping of the site, shrinkage of soils during compaction, excavatability, shoring, temporary slope angles, and construction means and methods. Ancillary features such as temporary access roads, fences, light poles, and non-structural fills are not within our scope and are also not addressed.

To verify that pertinent issues have been addressed and to aid in conformance with the intent of this report, it is requested that final grading and foundation plans be submitted to this office for review. In case there are any changes in the nature, design, or locations of improvements, or if any assumptions used in the preparation of this report prove to be incorrect, the conclusions and

recommendations contained herein should not be considered valid unless the changes are reviewed, and the conclusions of this report are verified or modified in writing by the Geotechnical Engineer. The criteria presented in this report are considered preliminary until such time as they are verified or modified in writing by the Geotechnical Engineer in the field during construction.

2.0 GEOLOGIC AND SEISMIC SETTINGS

Dibblee and Minch (2006) indicates the project site is underlain by older alluvium sediments of lower, younger terraces (Qoa). The site is mapped in low earthquake induced landslide and liquefaction hazard susceptibility zones by Monterey County (2013).

The site is located within a seismically active region of California but outside Alquist-Priolo Earthquake Fault Zones. The site is located approximately 5.8 miles northeast of the Rinconada/Reliz fault, 12.4 miles northeast of the Monterey Bay-Tularcitos fault (Creeping Section), 13.0 miles southwest of the creeping section of the San Andreas fault, and 23.6 miles southwest of the Quien Sabe fault.

Using information from recent earthquakes, improved mapping of active faults, and a new model for estimating earthquake probabilities, the 2015 Working Group on California Earthquake Probabilities updated the 30-year earthquake forecast for California. They concluded that there is a 72 percent probability (or likelihood) of at least one earthquake of magnitude 6.7 or greater striking somewhere in the greater San Francisco Bay region before 2043. A summary of the significant faults in the near vicinity of the site and their probabilities of exceeding an earthquake of magnitude 6.7 within 30 years is presented below.

Major Active Faults

Fault	Distance from Site (miles)	Probability of $M_w \geq 6.7$ within 30 Years[1]
Rinconada/Reliz	5.8	<1%
Monterey Bay-Tularcitos	12.4	<1%
San Andreas (Creeping Trace)	13.0	12 %
Quien Sabe	23.6	<1%

[1] Working Group on California Earthquake Probabilities, 2015

3.0 FIELD INVESTIGATION AND LABORATORY TESTING

Subsurface Exploration

ESP explored subsurface conditions at the site by drilling eight exploratory borings and six holes for measuring infiltration rates on February 14, 2024. The approximate locations of the borings are shown on the Boring and Infiltration Location Map (Figure 2).

The exploratory borings were advanced to depths of 10 to 30 feet below ground surface (bgs) using a Mobile B-53 truck-mounted drill rig. The drilling process consisted of auguring to the desired depth and upon reaching that depth, a Modified California sampler fitted with brass liners or a Standard Penetration Test (SPT) sampler, connected to steel rods, were lowered into the borehole. The samplers were driven into undisturbed ground with a 140-pound, safety hammer falling about 30 inches per drop. The samplers were driven up to 18 inches and the hammer blows required to drive every six inches of the sampler were recorded and are presented on the boring logs. This information was used to interpret soil consistency and density. This information was used to interpret soil consistency/density.

A staff engineer supervised the drilling program, described the soil conditions revealed by the borings to create a continuous log, and collected representative samples for laboratory testing. At the completion of the field exploration, the borings were backfilled with soil cuttings from the borings. The boring logs show soil description including: color, major and minor components,

USCS classification, changes in soil conditions with depth, moisture content, consistency/density, plasticity, sampler type, and sampling depths and laboratory test results. The unconfined compressive strength of selected cohesive samples was determined in the field using a hand-held pocket penetrometer. Copies of the boring logs advanced for this investigation are presented in Appendix A.

Subsurface Profile

The subsurface profile generally consisted of sand, clay, some gravel, and mixtures thereof, which is very typical of alluvial soil conditions mapped at the site by Dibblee and Minch (2006). The near surface soils, consisting primarily of clayey sand and well graded sand with variable gravel content and variable thickness, range in consistency from loose to medium dense. Additional soils encountered were silty sand, and sandy lean clay.

Boreholes drilled in preparation of soil infiltration tests encountered similar soils to those mentioned above. Details of the subsurface conditions encountered at the site are shown on the logs of soil boring presented in Appendix A which include soil descriptions, consistency, and moisture content.

Groundwater was not encountered to the maximum depths of drilling (30 feet bgs) in the exploratory holes drilled at the site.

Laboratory Testing

Nineteen samples collected during subsurface exploration were tested for moisture content and dry density (ASTM D 2937-17), two bulk samples were tested for resistance R-value and expansion pressure of compacted soils (ASTM-D 2844-17), two samples were tested to determine their grain size distribution (ASTM D 422-63/73), and one sample was tested for Atterberg Limits (ASTM D 4318-17). The dry density and moisture content provide preliminary information about the consistency/density and nature of soil. Atterberg Limits have a correlation to the soil expansion potential, as well as other engineering properties of interest. Particle size distribution of the near surface soil aids in soil classification. R-value results aid in developing alternate asphalt concrete pavement sections. The laboratory test results are presented on the logs of soil borings corresponding to the depths and copies of the laboratory test results are included in Appendix B.

A sample of the near surface soil from Boring B-8 was tested by CERCO Analytical to measure Redox Potential, pH, resistivity, chloride and sulfate concentrations. These parameters were used to evaluate corrosion potential of near surface soils at the site. A description of their test methods, results and a brief evaluation of the test results are contained in the Corrosivity Analysis in Appendix B.

4.0 DATA ANALYSIS

Subsurface Soil Classification

Based on the subsurface data collected as a part of our subsurface exploration and our review of the published geologic literature, the site is assigned to Site Class D ("stiff soil") as defined by Table 20.3-1 of the ASCE 7-16. The 2022 CBC parameters are based on the assumption that the buildings will conform to ASCE 7-16 11.4.8 - Exception No. 2.

Seismic Design Parameters

The following seismic design parameters represent the general procedure as outlined in Section 1613 of the 2022 CBC and in ASCE 7-16. The values determined below are based maps referenced in ASCE 7-16 and were obtained using the Office of Statewide Health Planning and Development Seismic Design Maps Web Application (OSHPD).

Summary of Seismic Parameters - CBC 2022

(Site Coordinates 36.4296°N, 121.3175°W)

Parameter	Design Value
Site Class	D
Mapped Short Term Spectral Response Parameter, (S_s)	1.5g
Mapped 1-second Spectral Response Parameter, (S_1)	0.596g
Site Coefficient, (F_a)	1
Site Coefficient, (F_v)	1.704[1, 2]
Site Modified Short Term Response Parameter, (S_{Ms})	1.5g
Site Modified 1-second Response Parameter, (S_{M1})	1.015g[1]
Design Short Term Response Parameter, (S_{Ds})	1g
Design 1-second Response Parameter, (S_{D1})	0.677g[1]
Site Modified Peak Ground Acceleration (PGA_M)	0.638g
Seismic Design Category	D

[1] The 2022 parameter is are based on the assumption that the buildings will conform to ASCE 7-16 11.4.8 - Exception No. 2.

[2] The 2022 CBC F_v parameter shall only be used for calculation of T_s. (ASCE Table 11.4-2, Supplement 1, Note a)

Liquefaction

The site is mapped as having a low liquefaction susceptibility according to the Geological Hazards Map for Monterey County (2003). Therefore, Earth Systems Pacific did not perform liquefaction potential evaluation for the proposed project.

5.0 CONCLUSIONS

Site Suitability

Based on the review of the collected subsurface and laboratory test data, in our opinion, the site is geotechnically suitable for the planned residential development provided the recommendations contained herein are incorporated in the design and implemented during site grading and foundation construction. The primary geotechnical concern at the site is the loose sand in the upper 2 to 3 feet. The primary geologic hazard is the potential for strong seismic shaking during a future seismic event in the vicinity.

Soil Expansion Potential

Soils found at the site mainly consist of predominantly sands indicating a non-plastic material. Interfingered layers of clay were identified in some of the surficial soil. The expansion potential of the surface and near surface soils are judged to be of low shrink/swell potential.

Foundations

The proposed buildings can be supported by post-tensioned concrete slabs as preferred by the client. Details of the foundation recommendations are included in the following sections of the report.

Site Preparation and Grading

It is anticipated that cuts and fills on the relatively flat site required to achieve the final pad grades will be on the order of 1 to 3 feet. The placement of engineered fill should be observed by Earth Systems. Additional grading work is anticipated to include pavement construction and backfill work related to placement of new utility lines. Grading operations are discussed in detail in the *Recommendations* section of this report.

Static Settlement

Based on our understanding of the proposed development, and because the building loads are anticipated to be fairly light, anticipated static settlements of the residential structures supported on foundations designed and constructed per the recommendations included in this report are on the order of 1 inch with a differential settlement within a 40-feet distance of ½ inch.

Groundwater

Groundwater was not encountered during drilling to a maximum depth of 30 feet bgs as part of our subsurface exploration program. While groundwater was not encountered during the time of drilling, variations in rainfall, temperature, and other factors may affect water levels, and therefore groundwater levels should not be considered constant. Groundwater is not expected to have an adverse effect on the construction or performance of the proposed residential structures.

Seismicity

The Monterey Bay area is recognized by geologists and seismologists as one of the most seismically active regions in the United States. The significant earthquakes in this area are generally associated with crustal movement along well-defined, active fault zones which regionally trend in a northwesterly direction. Although research on earthquake prediction has greatly increased in recent years, seismologists cannot predict when and where an earthquake will occur. Nevertheless, on the basis of current technology, it is reasonable to assume that the proposed buildings will be subjected to at least one moderate to severe earthquake during their lifetime. During such an earthquake, the danger from fault offset on the site is low, but strong shaking of the site is likely to occur and, therefore, the project should be designed in accordance with the seismic design provisions of the latest California Building Code. It should be understood that the California Building Code seismic design parameters are not intended to prevent structural damage during an earthquake, but to reduce damage and minimize loss of life.

6.0 RECOMMENDATIONS

General

These recommendations are applicable for the proposed project as described in the "Development Features" section of this report. If other improvements not previously mentioned are included, the Geotechnical Engineer should be contacted for revised recommendations.

Unless otherwise noted, the following definitions are used in the recommendations presented below. Where terms are not defined, definitions commonly used in the construction industry are intended.

- **Building Area:** The area within and extending a minimum of 5 feet beyond the perimeter of the foundations. The building area also includes the footprint of any improvements which are rigidly connected to the structure, such as retaining walls, that are expected to perform in a similar manner.
- **Flatwork Areas:** The areas within and extending a minimum of 1 foot beyond the limits of exterior pedestrian flatwork.

- **Subgrade:** The elevation of the surface upon which a non-expansive imported material or aggregate base (AB) will be placed for flatwork.
- **Existing Grade:** Elevations of the site that existed as of the date of our field exploration.
- **Finish Pad Grade:** The elevation in the building area where earthwork operations are typically considered to be complete. It does not include any sand or gravel that might be placed on the pad below slabs in association with vapor protection for the slabs.
- **Scarified:** Thoroughly plowed or ripped in two orthogonal directions to a depth of not less than 8 inches.
- **Moisture Conditioning:** Soil moisture content adjusted to optimum moisture content, or just above, prior to application of compactive effort.
- **Compacted/Recompacted Soil:** Soils placed in level lifts not exceeding 8 inches in loose thickness and compacted to a minimum of 90 percent of maximum dry density, unless specified otherwise. The standard tests used to establish maximum dry density and field density should be ASTM D 1557-12 and ASTM D 6938-17, respectively, or other methods acceptable to the Geotechnical Engineer and jurisdiction.

Site Preparation and Grading

General Site Preparation

1. The site should be prepared for grading by removing existing, vegetation, debris, and other potentially deleterious materials from areas to receive improvements. Undocumented fills and soil stockpiles encountered should be over-excavated and recompacted. Existing utility lines that will not be serving the proposed development should be either removed or abandoned. The appropriate method of utility abandonment will depend upon the type and depth of the utility. Recommendations for abandonment can be made as necessary.

2. Ruts or depressions, abandoned and/or buried structures, buried debris, and remnants of the former use of the site that are discovered during site grading should be removed and properly cleaned out down to undisturbed native soil. The bottoms of the resulting depressions should be scarified and cross-scarified at least 8 inches in depth, moisture conditioned and recompacted. The sides of the deeper depressions should be laid back and the fill material should be keyed into the sides as the layers are being placed. The depressions should then be backfilled with approved, compacted, moisture conditioned structural fill, as recommended in other sections of this report.

3. "Organic" soil or soil contaminated with debris will not be suitable for use as structural fill and should be removed from the site or stockpiled for later use in landscape areas.

4. Cut pads should be scarified and recompacted as recommended elsewhere in this report.

5. Due to the presence of loose sands at the site, a program of over-excavation and backfilling may be required. Over-excavation of the upper 2 to 3 feet of the existing ground is recommended. The exposed ground should be inspected by the geotechnical engineer to determine the need for additional excavation work.

6. Site grading may result in building pads with a cut/fill transition across the pad. This condition should be mitigated by over-excavating the cut portion of the pad to create a relatively uniform thickness of fill across the pad. Over-excavation operations should extend a minimum of 5 feet horizontally beyond the perimeter foundation any appurtenant porch and patio slab areas.

7. Site clearing and backfilling operations should be conducted under the field observation of the Geotechnical Engineer. The Geotechnical Engineer should be notified at least 48 hours prior to commencement of grading operations.

Compaction Recommendations

1. In general, the underlying native soil in areas proposed to receive fill, exterior flatwork or new structures should be scarified at least 8 inches, moisture conditioned, and recompacted to the recommended relative compaction presented below, unless noted otherwise.

2. Recompacted native soils and fill soils should be compacted to a minimum relative compaction of 90 percent of maximum dry density at a moisture content that is slightly above optimum.

3. In areas to be paved, the upper 8 inches of subgrade soil should be compacted to a minimum 92 percent of maximum dry density at a moisture content above optimum. The aggregate base courses should be compacted to a minimum 95 percent of maximum dry density at a moisture content above optimum. The subgrade and base should be firm and unyielding when proof-rolled with heavy, rubber-tired equipment prior to paving. The pavement subgrade soils should be frequently moistened as necessary prior to placement of the aggregate base to maintain the soil moisture content near optimum.

Fill Recommendations

1. Structural fill is defined herein as a native or import fill material which, when properly compacted, will support foundations, pavements, and other fills. The on-site native soils that are free of debris, organics and other deleterious material, may be used as structural fill.

2. Import fill is not anticipated at the site. Should import fill be required, the soil should meet the following criteria:

   a. Be coarse grained and have a plasticity index of less than 12 and/or an expansion index less than 20;
   b. Be free of organics, debris or other deleterious material;
   c. Have a maximum rock size of 3 inches; and
   d. Contain sufficient clay binder to allow for stable foundation and utility trench excavations.

3. A sample of the soil proposed to be imported to the site should be submitted at least five working days before being transported to the site for evaluation by the Geotechnical Engineer. During importation to the site the material should be further reviewed on an intermittent basis.

Foundations

Post-Tensioned Slab Foundations

1. The post-tensioned slab foundation design should be based on the provisions of the current edition of the California Building Code and the recommendations of the Post-Tensioning Institute. The following design criteria were developed for the Post-Construction Case in general accordance with the recommendations contained in the document "Design and Construction of Post-Tensioned Slabs-on-Ground", 3rd Edition published by the Post-Tensioning Institute. The criteria were based on Thornthwaite Moisture Indices ranging from -20 for dry conditions to +10 for irrigated conditions.

Edge Moisture Variation Distance (e_m)	
Center Lift Condition	9.0 feet
Edge Lift Condition	5.4 feet
Estimated Differential Swell (y_m)	
Center Lift Condition	0.46 inches
Edge Lift Condition	0.65 inches
Allowable Bearing Capacity (dead loads)	1,500 psf
Allowable Bearing Capacity (dead plus live loads)	2,000 psf
Allowable Bearing Capacity (DL+LL+ wind or seismic)	2,500 psf
Subgrade Friction Factor (slab against subgrade)	0.3
Total static settlement	1 inch
Differential static settlement (within 25 feet)	½ inch

2. In areas where moisture transmitted from the subgrade would be undesirable, a vapor retarding membrane should be utilized beneath the post-tensioned slab foundation. The vapor retarder should comply with ASTM Standard Specification E 1745-17 and the latest recommendations of ACI Committee 302. The vapor retarder should be installed in accordance with ASTM Standard Practice E 1643-18. Care should be taken to properly lap and seal the vapor retarder, particularly around utilities, and to protect it from damage during construction.

3. If sand, gravel or other permeable material is to be placed over the vapor retarder, the material over the vapor retarder should be only lightly moistened and not saturated prior to casting the slab concrete. Recent studies, including those by ACI Committee 302, have concluded that excess water above the vapor retarder would increase the potential for moisture damage to floor coverings and could increase the potential for mold growth or other microbial contamination. The studies also concluded that it is preferable to eliminate the sand layer and place the slab concrete in direct contact with the vapor retarder, particularly during wet weather construction. However, placing the concrete directly on the vapor retarder would require special attention to using the proper vapor retarder, concrete mix design, and finishing and curing techniques. Concrete materials, placement and curing methods should be specified by the design professional.

4. The post-tensioned slab foundations should be maintained in accordance with the publication *Construction and Maintenance Manual for Post-tensioned Slab-on-Ground Foundations* by the Post-Tensioning Institute. Particular attention should be paid to the "Property Owner Maintenance" and "Landscaping" sections of the Manual.

Exterior Flatwork

1. Exterior flatwork that will not experience vehicular traffic should have a minimum thickness of 4 full inches and should be reinforced as directed by the architect/engineer. The flatwork should be placed over a minimum of 4-inches of aggregate base.

2. Assuming that movement (i.e., 1/4-inch or more) of exterior flatwork beyond the structure is acceptable, the flatwork should be designed to be independent of the building foundations. The flatwork should not be doweled to foundations, and a separator should be placed between the two.

3. Prior to placement of the concrete, the soils surface in the flatwork area should be at or above optimum moisture content, and no desiccation cracks should be present.

4. To reduce shrinkage cracks in concrete, the concrete aggregates should be of appropriate size and proportion, the water/cement ratio should be low, the concrete should be properly placed and finished, contraction joints should be installed, and the concrete should be properly cured. Concrete materials, placement and curing specifications should be at the direction of the designer; ACI 302.1R-04 and ACI 302.2R-04 are suggested as resources for the designer in preparing such specifications.

Utility Trench Backfills

1. A select, noncorrosive, granular, easily compacted material should be used as bedding and shading immediately around utility pipes. The site soils may be used for trench backfill above the select material.

2. Trench backfill in the upper 8 inches of subgrade beneath pavement areas should be compacted to a minimum of 92 percent of maximum dry density at a moisture content above optimum moisture content and the aggregate base courses should be compacted to a minimum 95 percent of maximum dry density at a moisture content above optimum. Trench backfill in other areas should be compacted to a minimum of 90 percent of maximum dry density at a moisture content above optimum moisture content. Jetting of utility trench backfill should not be allowed.

3. Parallel trenches excavated in the area under foundations defined by a plane radiating at a 45-degree angle downward from the bottom edge of the footing should be avoided, if possible. Trench backfill within this zone, if necessary, should consist of Controlled Density Fill (Flowable Fill).

4. Where utility trenches extend under perimeter foundations, the trenches should be backfilled entirely with approved native soil compacted to a minimum of 90 percent of maximum dry density at a moisture content above optimum moisture content. The zone of approved fill soil should extend a minimum distance of 2 feet on both sides of the foundation. If utility pipes pass through sleeves cast into the perimeter foundations, the annulus between the pipes and sleeves should be completely sealed.

Pavement Sections

Asphalt Pavements

1. Two R-Value tests were conducted on the native soil at two locations. Test results indicate an R-Value of 46 at Boring B-4, and an R-Value of 48 at Boring B-5. For the design of asphalt pavements an R-Value of 46 was assumed to account for variability of the subgrade soil throughout the site. The asphalt concrete (AC) sections were designed in accordance with the Caltrans Highway Design Method for Traffic Indices (TIs) of 4 through 7. Determination of the appropriate TI for each area to be paved is the province of the architect/engineer. The calculated base and AC thicknesses are for compacted material. Normal Caltrans construction tolerances should apply. The aggregate base should conform to Caltrans Class 2.

R-Value	Traffic Index	AC Thickness	Class 2 Base Thickness
46	4.0	2.5"	4.0"
46	4.5	2.5"	4.0"
46	5.0	3.0"	4.0"
46	5.5	3.0"	4.0"
46	6.0	3.5"	4.0"
46	6.5	4.0”	4.5”
46	7.0	4.0”	5.5”

Concrete (PCC) Pavements

1. Portland Cement Concrete (PCC) pavements in automobile parking areas should be at least 5 inches thick. Lightly loaded concrete driveways, subjected primarily to automobile traffic, should be a minimum 5.5 inches thick. Concrete pavement which will experience periodic truck traffic, such as garbage truck or moving van routes, should be a minimum of 6 inches thick.

2. Reinforcing of the concrete is optional. The concrete should have a minimum modulus of rupture of 650 psi. Construction joints should be doweled. The concrete pavement sections should be underlain by a minimum 6 inches of compacted Class 2 aggregate base. A modulus of subgrade reaction of 150 psi may be assumed in the design of the concrete pavements.

General Conditions

1. The subgrade soil should be scarified 8 inches, moisture conditioned as necessary and be compacted to a minimum 92 percent of maximum dry density. Aggregate base should also be compacted to at least 95 percent of maximum dry density.

2. The subgrade and base should be firm and unyielding when proof-rolled with heavy, rubber-tired equipment prior to paving. The subgrade soils should be periodically moistened as necessary prior to placement of the aggregate base to maintain the soil moisture content near optimum.

3. Pavement longevity will be enhanced if the surface grade drains away from the edges of the pavement. Finished AC surfaces should slope toward drainage facilities at 2 percent where practicable, but in no case should water be allowed to pond.

Management of Site Drainage and Finish Improvements

1. Unpaved ground surfaces should be finish graded to direct surface runoff away from site improvements at a minimum 5 percent grade for a minimum distance of 10 feet. If this is not practical due to the terrain or other site features, swales with improved surfaces should be provided to divert drainage away from improvements. The landscaping should be planned and installed to maintain proper surface drainage conditions.

2. Runoff from driveways, roof gutters, downspouts, planter drains, and other improvements should discharge in a non-erosive manner away from foundations, pavements, and other improvements. The downspouts may discharge onto splash blocks that direct the flow away from the foundation.

3. Stabilization of surface soils, particularly those disturbed during construction, by vegetation or other means during and following construction is essential to protect the site from erosion damage. Care should be taken to establish and maintain vegetation.

4. Open areas adjacent to exterior flatwork should be irrigated or otherwise maintained so that constant moisture conditions are created throughout the year. Irrigation systems should be controlled to the minimum levels that will sustain the vegetation without saturating the soil.

5. Bio-retention swales constructed within 10 feet or less from the building foundation should be lined with a 20-mil pond liner.

Geotechnical Observation and Testing

1. It must be recognized that the recommendations contained in this report are based on a limited number of borings and rely on continuity of the subsurface conditions encountered.

2. It is assumed that the Geotechnical Engineer will be retained to provide consultation during the design phase, to interpret this report during construction, and to provide construction monitoring in the form of testing and observation.

3. Unless otherwise stated, the terms "compacted" and "recompacted" refer to soils placed in level lifts not exceeding 8 inches in loose thickness and compacted to a minimum of 90 to 95 percent of maximum dry density as recommended above. The standard tests used to define maximum dry density and field density should be ASTM D 1557-12 and ASTM D 6938-17, respectively, or other methods acceptable to the Geotechnical Engineer and jurisdiction.

4. “Moisture conditioning” refers to adjusting the soil moisture to a moisture content above optimum moisture content prior to application of compactive effort. If the soils are overly moist so that they become unstable, or if the recommended compaction cannot be readily achieved, drying the soil to optimum moisture content or just above may be necessary. Placement of gravel layers or geotextiles may also be necessary to help stabilize unstable soils. The Geotechnical Engineer should be contacted for recommendations for mitigating unstable soils.

5. At a minimum, the following should be provided by the Geotechnical Engineer:

    - Review of final grading and foundation plans,
    - Professional observation during site preparation, grading, and foundation excavation,
    - Oversight of soil compaction testing during grading,
    - Oversight of soil special inspection during grading.

6. Special inspection of grading should be provided as per Section 1705.6 and Table 1705.6 of the CBC; the soils special inspector should be under the direction of the Geotechnical Engineer. In our opinion, the following operations should be subject to *continuous* soils special inspection:

    - Scarification and recompaction,
    - Fill placement and compaction,

7. In our opinion, the following operations may be subject to *periodic* soils special inspection; subject to approval by the Building Official:

    - Removal of existing development features,
    - Site preparation,
    - Compaction of utility trench backfill,
    - Compaction of subgrade and aggregate base,
    - Observation of foundation excavations,
    - Building pad moisture conditioning.

8. It will be necessary to develop a program of quality control prior to beginning grading. It is the responsibility of the owner, contractor, or project manager to determine any additional inspection items required by the architect/engineer or the governing jurisdiction.

9. The locations and frequencies of compaction tests should be as per the recommendations of the Geotechnical Engineer at the time of construction. The recommended test locations and frequencies may be subject to modification by the Geotechnical Engineer based upon soil and moisture conditions encountered, the size and type of equipment used by the contractor, the general trend of the compaction test results, and other factors.

10. A preconstruction conference among a representative of the owner, the Geotechnical Engineer, soils special inspector, the architect/engineer, and contractors is recommended to discuss planned construction procedures and quality control requirements. Earth Systems should be notified at least 48 hours prior to beginning grading operations.

7.0 INFILTRATION RATE TESTING

Earth Systems performed field tests to measure soil infiltration rates for use in the design of the proposed stormwater facilities at the subject site. Six tests were performed at the northeast end of the property per preliminary site plan provided by *Whitson Engineers* dated November 27, 2023.

The holes used to perform infiltration tests were drilled using a 6-inch diameter solid stem, continuous flight auger. The infiltration test holes were drilled to depths of 3 to 8 feet bgs. The test hole locations are shown on the attached Figure 2, Boring and Infiltration Location Map.

The infiltration tests were conducted in general accordance with the *Shallow Quick Infiltration Testing Methodology*, as detailed in the document Native Soil Assessment for Small Infiltration-Based Stormwater Control Measures prepared by Earth Systems Pacific for the Central Coast Low Impact Initiative (2013). Three-inch diameter perforated PVC pipes were placed in the borings, and the annular spaces were backfilled with pea-gravel. The test holes were filled with water and maintained constant head at ground surface for approximately 30 minutes. From that point on, the tests were conducted as a falling head test, and measurements were taken as the water level dropped. Copies of the infiltration rate test results are included in Appendix C.

These test results only indicate the infiltration rates at the specific locations and under specific conditions. Sound engineering judgment should be exercised in extrapolating the test results for other conditions or locations. Please note that the test results incorporate both downward and horizontal fluxes of water. Therefore, the test results will need to be adjusted to estimate the downward infiltration rates for assessment of the storm water percolation facilities. Technical design references vary in methods they present for using these types of test results. However, most references include reduction and/or correction factors for several parameters

including, but not limited to, size of the storm water percolation system relative to the test volume, number of tests conducted, variability in the soil profile, anticipated silt loading, anticipated biological buildup, anticipated long-term maintenance, and other factors. Assessment of the storm water infiltration system should select the appropriate reduction and/or correction factors based on these considerations.

It is also pointed out that the measured rates were for undisturbed native soils, and that site grading, fill placement, and soil compaction can have significant effects on the actual infiltration rates that will be experienced following construction.

8.0 CLOSURE

This report is valid for conditions as they exist at this time for the type of project described herein. Our intent was to perform the investigation in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the locality of this project at this time under similar conditions. No representation, warranty, or guarantee is either expressed or implied. This report is intended for the exclusive use by the client as discussed in the Scope of Services section. Application beyond the stated intent is strictly at the user's risk.

If changes with respect to the project type or location become necessary, if items not addressed in this report are incorporated into plans, or if any of the assumptions stated in this report are not correct, Earth Systems should be notified for modifications to this report. Any items not specifically addressed in this report should comply with the CBC and the requirements of the governing jurisdiction.

The preliminary recommendations of this report are based upon the geotechnical conditions encountered during the investigation and may be augmented by additional requirements of the architect/engineer, or by additional recommendations provided by Earth Systems based on conditions exposed at the time of construction.

FIGURES

Figure 1 – Site Vicinity Map
Figure 2 – Boring Location Map

Figure 1

2000 0 2000 4000

Approximate Scale in Feet

Base: Google Earth (2024)

EARTH SYSTEMS	**Almond Acres Residential Development** **311 Orchard Lane** **Soledad, California**	**Site Vicinity Map** **File No.: 306546-004**

Figure 2

CALLE VALVERDE

NINO HOMES AT LIBERTY COURT

ORCHARD VILLAS

VICINITY MAP

SITE

EASEMENT FOR PEDESTRIAN WALKWAY, SANITARY SEWER AND STORM DRAIN PIPELINES

SOLEDAD MISSION RECREATION DISTRICT

I-1

I-2

STORMWATER DETENTION 0.4 AC

I-3

I-4

I-5

I-6

B-1

B-2

APT SITE 16,522

B-3

B-4

B-5

B-6

B-7

B-8

CADENA DRIVE

CADENA DRIVE

ORCHARD LANE

B STREET

C STREET

CEDAR LANE

AROMAS PLACE

CITY OF SOLEDAD

MOBILE HOME PARK 3.4 AC

SAN VICENTE ELEMENTARY SCHOOL

LEGEND

N

0 80 160 240

Approximate Scale in Feet

B-8 Approximate Boring Location

I-6 Approximate Infiltration Location

Base: Whitson Engineers (November 27, 2023)

EARTH SYSTEMS

Almond Acres Residential Development
311 Orchard Lane
Soledad, California

Boring and Infiltration Location Map

File No.: 306546-001

APPENDIX A

Boring Logs (8)
Infiltration Logs (6)

Earth Systems Pacific

Boring B-1
PAGE 1 OF 1

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0	SC		CLAYEY SAND; brown, very moist, medium dense, fine to medium grained, trace organics							
1			- ½" diameter gravel						4	
2				1.5 - 2.0	1-1	■	119.5	8.0	10	
			[LL=27, PI=12]	2.0 - 2.5	1-2	■	128.0	9.3	10	
3			- decrease clay content							
4	SP		POORLY GRADED SAND; dark yellowish brown, very moist, medium dense, fine to medium grained sand, few ½" diameter gravel							
			[11% Passing #200; 6% Passing 2.9µm]						5	
5			- fine grained sand lense	5.5 - 6.0	1-3	■			10	
6			- trace mica	6.0 - 6.5	1-4	■			10	
7			- many ½" diameter gravels							
8	SW		WELL GRADED SAND; brown, moist, medium dense, fine to medium grained sand							
9									9	
									10	
10				9.5 - 10.0	1-5	●			12	
11										
12										
13										
14	SM		SILTY SAND; brown, moist, very dense, fine to medium grained sand, cemented						18	
									27	
15			- decrease in moisture content	14.0 - 15.0	1-6	●			32	
16										
17	SW		WELL GRADED SAND; yellowish brown, moist, dense, fine to medium grained sand							
18										
19			- slightly moist						8	
									13	
20				19.0 - 20.0	1-7	●			16	
21										
22										
23										
24									7	
									10	
25			- trace silt	24.0 - 25.0	1-8	●			17	
26			Boring terminated at 25 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▼ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring B-2
PAGE 1 OF 2
FILE NO.: 306546-001
DATE: 2/14/2024

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0 - 4	SW-SM		WELL GRADED SAND with SILT; dark brown, very moist, loose, fine to coarse grained sand, very few ½" diameter gravels						4	
				1.5 - 2.0	2-1	■	116.7	7.3	5	
			[16% Passing #200]	2.0 - 2.5	2-2	■	111.5	7.7	6	
4 - 7	SW		WELL GRADED SAND; dark yellowish brown, moist, medium dense, fine to coarse grained sand						7	
				5.5 - 6.0	2-3	■	112.6	5.4	10	
				6.0 - 6.5	2-4	■	105.4	6.2	12	
7 - 12	SC		CLAYEY SAND; brown, very moist, medium dense, fine to coarse grained sand - wet - decreased moisture content						12	
				8.5 - 9.0	2-5	■	115.5	27.6	13	
				9.0 - 9.5	2-6	■	133.0	11.8	15	
12 - 14	SW		WELL GRADED SAND; yellowish brown, moist, medium dense, fine to coarse grained sand							
14 - 17	SM		SILTY SAND; brown, moist, very dense, fine to medium grained sand, cemented - decreased moisture content						10	
				14.5 - 15.0	2-7	●			14	
									15	
17 - 26	SW		WELL GRADED SAND; yellowish brown, moist, medium dense, fine to medium grained sand							
			- slightly moist						7	
				19.5 - 20.0	2-8	●			8	
									11	
			- dense						12	
				24.5 - 25.0	2-9	●			24	
									23	
26 -	CL		SANDY LEAN CLAY; brown, moist, stiff, fine to medium grained sand, some mica content, mottling							

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▼ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring B-2
PAGE 2 OF 2

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
27	CL		SANDY LEAN CLAY; brown, moist, stiff, fine to medium grained sand, some mica content, mottling							
28										
29									5 7	
30				29.5 - 30.0	2-10	●			8	
31			Boring terminated at 30 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										
51										
52										
53										

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▽ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring B-3
PAGE 1 OF 1

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0	SC		CLAYEY SAND; dark brown, very moist, loose, fine to medium grained sand, trace organics							
1									3	
2				1.5 - 2.0	3-1	■	100.2	8.0	2	
				2.0 - 2.5	3-2	■	121.2	7.7	2	
3										
4										
5										
6	SM		SILTY SAND; dark yellowish brown, moist, fine grained sand to coarse grained sand						11	
									13	
				6.0 - 6.5	3-3	●			14	
7										
8										
9									4	
									9	
10				9.5 - 10.0	3-4	●			13	
11										
12	SW		WELL GRADED SAND; yellowish brown, moist, dense, fine grained sand, trace mica							
13										
14									11	
									17	
15				14.5 - 15.0	3-5	●			32	
			Boring terminated at 15 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▽ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring B-4
PAGE 1 OF 1
FILE NO.: 306546-001
DATE: 2/14/2024

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0	SW		WELL GRADED SAND; dark brown, moist, loose, fine to coarse grained sand, trace mica							
1									3	
2				1.5 - 2.0	4-1	■	102.8	7.5	5	
				2.0 - 2.5	4-2	■	122.9	7.2	5	
3										
4			- yellowish brown							
5			- many ½" diameter gravel							
6				5.5 - 6.0	4-3	■			10 13	
				6.0 - 6.5	4-4	■			18	
7			- very moist, binder							
8										
9	SC		CLAYEY SAND; brown, moist, medium dense, fine grained sand, trace mica						7 11	
10				9.5 - 10.0	4-5	●			12	
11			- many ½" diameter gravel							
12										
13										
14	SW		WELL GRADED SAND; dark yellowish brown, medium dense, fine to medium grained sand, trace mica						9 12	
15				14.5 - 15.0	4-6	●			12	
			Boring terminated at 15 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▽ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring B-5
PAGE 1 OF 1

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0	SC		CLAYEY SAND; dark brown, very moist, loose, fine grained sand, trace medium grained sand							
1									3	
2				1.5 - 2.0	5-1	■	103.8	7.3	5	
				2.0 - 2.5	5-2	■	109.0	7.2	6	
3			- dark yellowish brown	0.0 - 4.0	B-5	○				
4	SM		SILTY SAND; dark yellowish brown, moist, medium dense, fine grained sand							
5									5	
6									8	
			- very fine grained gravels	6.0 - 6.5	5-3	●			9	
7			- dark reddish brown							
8										
9									10	
									13	
10				9.5 - 10.0	5-4	●			18	
11			Boring terminated at 10 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▽ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring B-6
PAGE 1 OF 1
FILE NO.: 306546-001
DATE: 2/14/2024

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0	SW		WELL GRADED SAND; dark brown, very moist, loose, fine to medium grained sand, trace coarse grained sand							
1									3	
2				1.5 - 2.0	6-1	■	109.7	6.7	3	
			- decrease moisture content	2.0 - 2.5	6-2	■	108.5	6.6	5	
3			- dark yellowish brown							
4										
5			- some $\frac{1}{2}$" diameter gravel							
6									3	
									6	
7				6.0 - 6.5	6-3	●			8	
8	SC		CLAYEY SAND; brown, moist, medium dense, fine to medium grained sand							
9									7	
10									10	
				9.5 - 10.0	6-4	●			13	
11										
12										
13	SW		WELL GRADED SAND; dark yellowish brown, very moist, medium dense, fine to medium grained sand							
14									5	
									6	
15	SC		CLAYEY SAND; brown, moist, medium dense, fine to medium grained sand	14.5 - 15.0	6-5	●			7	
16										
17	SW		WELL GRADED SAND; yellowish brown, moist, medium dense, fine to medium grained sand, trace mica							
18										
19									5	
									12	
20				19.5 - 20.0	6-6	●			12	
21			Boring terminated at 20 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							
22										
23										
24										
25										
26										

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▽ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring B-7

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

PAGE 1 OF 1
FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0	SC		CLAYEY SAND; dark brown, very moist, loose, fine to medium grained sand, trace organics							
1									2	
2				1.5 - 2.0	7-1	■	99.6	9.0	2	
				2.0 - 2.5	7-2	■	128.0	9.1	5	
3			- brown to yellowish brown							
4	SW		WELL GRADED SAND; yellowish brown, moist, medium dense, fine to coarse grained sand, some ½" diameter gravels							
5									5	
6				6.0 - 6.5	7-3	●			8	
7									10	
8	SC		CLAYEY SAND; brown, moist, medium dense, fine to medium grained sand							
9									4	
10				9.5 - 10.0	7-4	●			8	
11									8	
12										
13	SW		WELL GRADED SAND; yellowish brown, moist, medium dense, fine to coarse grained sand							
14									6	
15				14.5 - 15.0	7-5	●			12	
16									14	
17										
18										
19									5	
20				19.5 - 20.0	7-6	●			7	
21			Boring terminated at 20 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.						9	
22										
23										
24										
25										
26										

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▽ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring B-8
PAGE 1 OF 1

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0	SW		WELL GRADED SAND; dark brown, moist, loose, fine to coarse grained sand							
1									3	
2				1.5 - 2.0	8-1	■			3	
			[12% Passing #200]	2.0 - 2.5	8-2	■	103.9	6.5	4	
3										
4										
5	SM		SILTY SAND; brown, moist, medium dense, fine grained sand, trace micaceous						3	
6									6	
				6.0 - 6.5	8-3	●			11	
7										
8										
9									5	
									11	
10			- few fine grained gravels	9.5 - 10.0	8-4	●			11	
11										
12										
13										
14	SC		CLAYEY SAND; dark yellowish brown, moist, medium dense, fine grained sand						7	
									10	
15				14.5 - 15.0	8-5	●			14	
16			Boring terminated at 15 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▽ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Infiltration Test I-1

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0 - 1 - 2 - 3	SW		WELL GRADED SAND with SILT; dark brown, moist, fine to coarse grained sand, some ½" diameter gravels							
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 -			Infiltration test hole terminated at 3 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▽ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Infiltration Test I-2

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0 - 5	SW		WELL GRADED SAND; dark brown, very moist, fine to coarse grained sand - dark reddish brown, fine to medium grained sand							
5 - 26			Infiltration test hole terminated at 5 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▽ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Infiltration Test I-3

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0 - 8	SW		WELL GRADED SAND; dark reddish brown, fine to medium grained sand - few ½" diameter gravels - few ½" diameter clay clumps - dark brown							
8 - 26			Infiltration test hole terminated at 8 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							

LEGEND: ■ 2.5" Mod Cal Sample ▭ Shelby ● SPT ○ Bulk Sample ▽ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Infiltration Test I-4

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0	SW		WELL GRADED SAND; dark reddish brown, fine to medium grained sand							
3			- few ½" diameter gravels							
5			- few ½" diameter clay clumps - dark brown							
8			Infiltration test hole terminated at 8 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							

LEGEND: 2.5" Mod Cal Sample; Shelby; SPT; Bulk Sample; Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Infiltration Test I-5

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0 - 5	SW		WELL GRADED SAND with SILT; dark brown, very moist, fine to coarse grained sand							
5			Infiltration test hole terminated at 5 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							

LEGEND: 2.5" Mod Cal Sample; Shelby; SPT; Bulk Sample; Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Infiltration Test I-6

LOGGED BY: A. Hernandez
RIG TYPE: CCD Mobile B-53
AUGER TYPE: 6" Soild Stem Auger

FILE NO.: 306546-001
DATE: 2/14/2024

Almond Acres
311 Orchard Lane
Soledad, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0 - 3	SW		WELL GRADED SAND with SILT; dark brown, moist, fine to coarse grained sand, some ½" diameter gravels							
			Infiltration test hole terminated at 3 feet below ground surface. Groundwater was not encountered to the maximum depth of drilling.							

LEGEND: 2.5" Mod Cal Sample; Shelby; SPT; Bulk Sample; Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

APPENDIX B

Laboratory Test Results
CERCO Analytical Evaluation

Almond Acres - 311 Orchard Lane, Soledad 306456-001

BULK DENSITY TEST RESULTS

ASTM D 2937-17 (modified for ring liners)

February 28, 2024

BORING NO.	DEPTH feet	MOISTURE CONTENT, %	WET DENSITY, pcf	DRY DENSITY, pcf
B1-1	1.5 - 2.0	8.0	129.0	119.5
B1-2	2.0 - 2.5	9.3	139.9	128.0
B2-1	1.5 - 2.0	7.3	125.2	116.7
B2-2	2.0 - 2.5	7.7	120.1	111.5
B2-3	5.5 - 6.0	5.4	118.7	112.6
B2-4	6.0 - 6.5	6.2	111.9	105.4
B2-5	8.5 - 9.0	27.6	147.4	115.5
B2-6	9.0 - 9.5	11.8	148.7	133.0
B3-1	1.5 - 2.0	8.0	108.3	100.2
B3-2	2.0 - 2.5	7.7	130.5	121.2
B4-1	1.5 - 2.0	7.5	110.5	102.8
B4-2	2.0 - 2.5	7.2	131.7	122.9
B5-1	1.5 - 2.0	7.3	111.4	103.8
B5-2	2.0 - 2.5	7.2	116.9	109.0
B6-1	2.0 - 2.5	6.7	117.1	109.7
B6-2	2.0 - 2.5	6.6	115.6	108.5
B7-1	1.5 - 2.0	9.0	108.5	99.6
B7-2	2.0 - 2.5	9.1	139.6	128.0
B8-2	2.0 - 2.5	6.5	110.6	103.9

Almond Acres - 311 Orchard Lane, Soledad 306456-001

Amount of Material in Soils Finer than No. 200 Sieve

ASTM D 1140-17

February 28, 2024

	Sieve size	% Retained	% Passing
1	B2-2 @ 2.0-2.5	84	16
2	B8-2 @ 2.0-2.5	88	12
3			

Almond Acres - 311 Orchard Lane, Soledad 306456-001

Amount of Material in Soils Finer than No. 200 Sieve

ASTM D 1140-17

February 28, 2024

	Sieve size	% Retained	% Passing
1	B2-2 @ 2.0-2.5	84	16
2			
3			

Almond Acres - 311 Orchard Lane, Soledad 306456-001

Amount of Material in Soils Finer than No. 200 Sieve

ASTM D 1140-17

February 28, 2024

	Sieve size	% Retained	% Passing
1	B8-2 @ 2.0-2.5	88	12
2			
3			

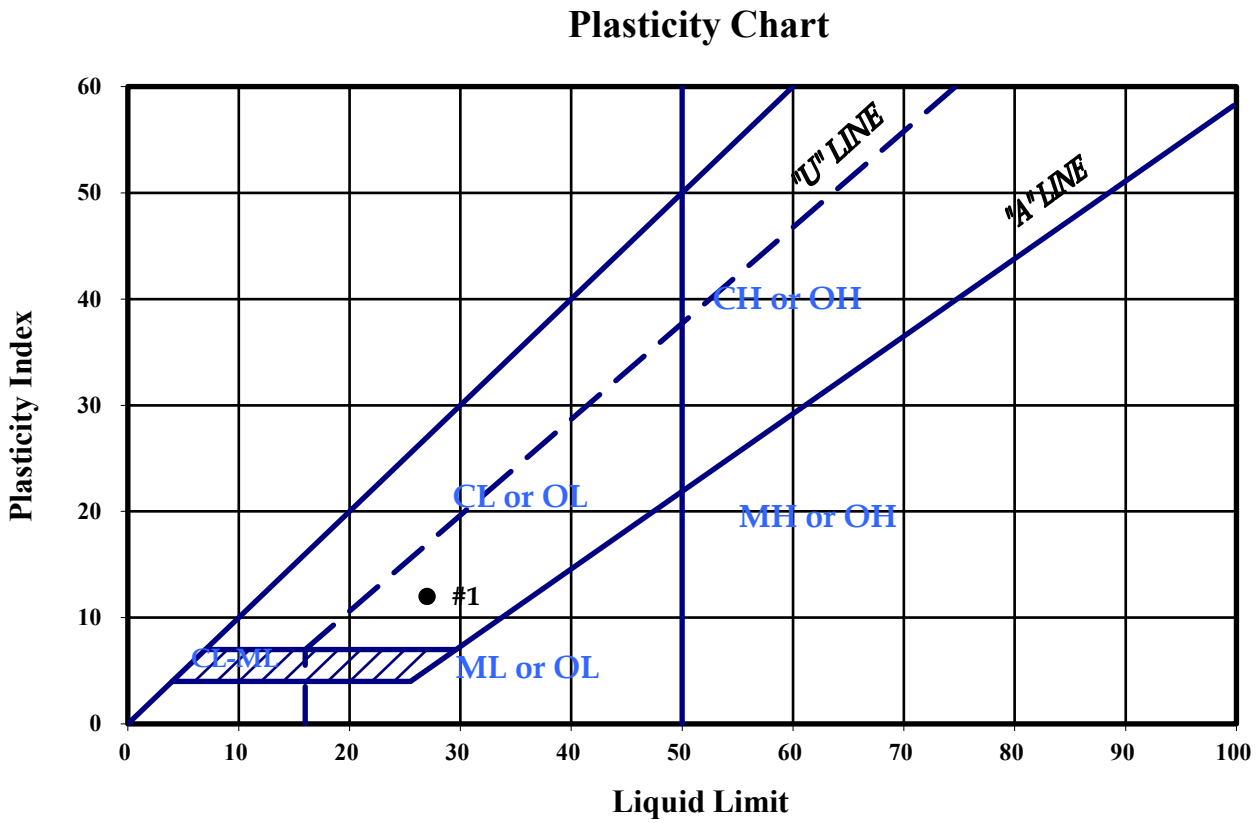
Almond Acres - 311 Orchard Lane, Soledad 306456-001

PLASTICITY INDEX

ASTM D 4318-17

February 28, 2024

Test No.:	1	2	3	4	5
Boring No.:	B1-2				
Sample Depth:	2.0 - 2.5'				
Liquid Limit:	27				
Plastic Limit:	15				
Plasticity Index:	12				



Almond Acres 306546-001

PARTICLE SIZE ANALYSIS

ASTM D 7928-16

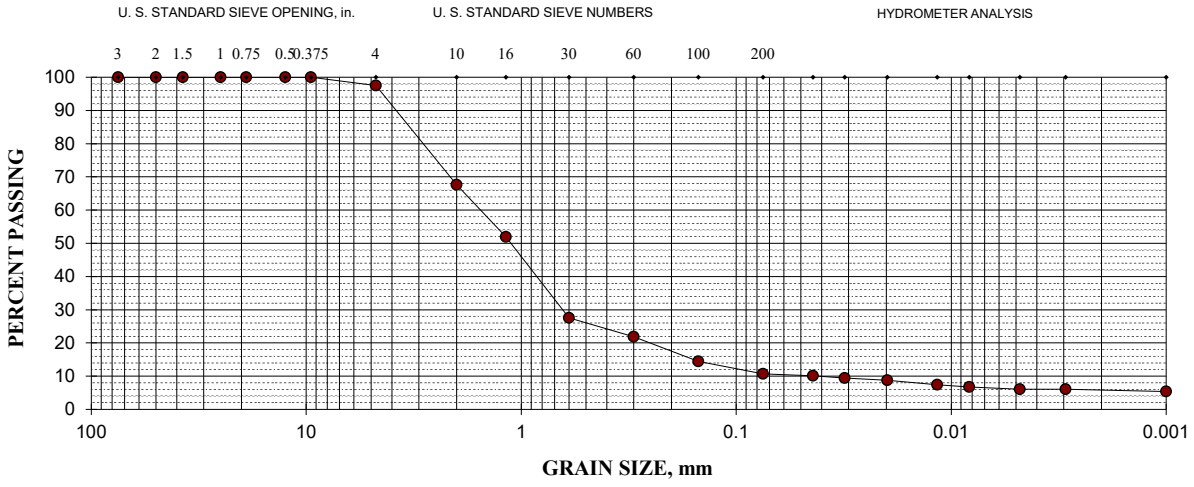
Boring #1 @ 5.5 - 6.0' March 11, 2024

Poorly Graded Sand Specific Gravity = 2.65 (assumed)

Gravel = 3%; Sand = 86%; Silt = 5%; Clay = 6%

Cu = 36.7; Cc = 6.3

Sieve size	% Retained	% Passing
3" (75.0-mm)	0	100
2" (50.0-mm)	0	100
1-1/2" (37.5-mm)	0	100
1" (25.0-mm)	0	100
3/4" (19.0-mm)	0	100
1/2" (12.5-mm)	0	100
3/8" (9.5-mm)	0	100
#4 (4.75-mm)	3	97
#10 (2.00-mm)	32	68
#16 (1.18-mm)	48	52
#30 (600-µm)	72	28
#50 (300-µm)	78	22
#100 (150-µm)	86	14
#200 (75-µm)	89	11
Hydrometer Analysis		
44-µm		10
31-µm		9
20-µm		9
12-µm		7
8-µm		7
4.8-µm		6
2.9-µm		6
Colloids		5



Almond Acres
311 Orchard Lane, Soledad

306278-002

RESISTANCE '*R*' VALUE AND EXPANSION PRESSURE

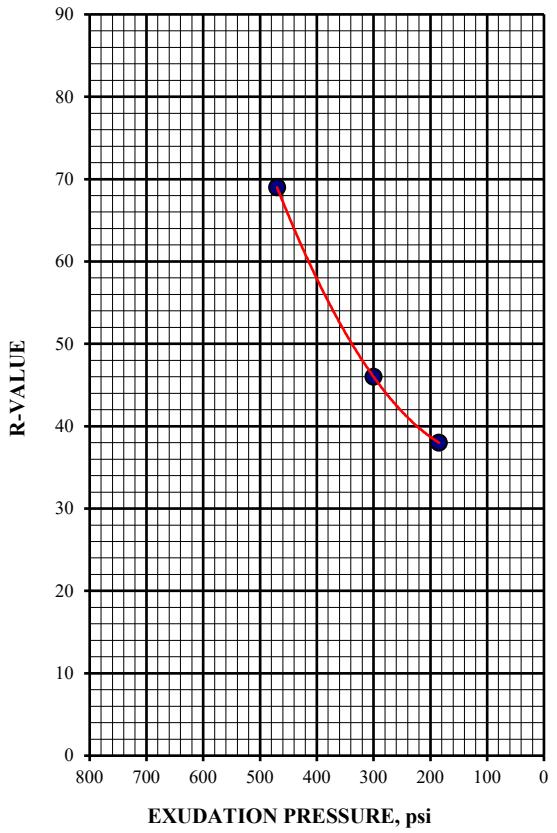
ASTM D 2844/D2844M-18

June 19, 2012

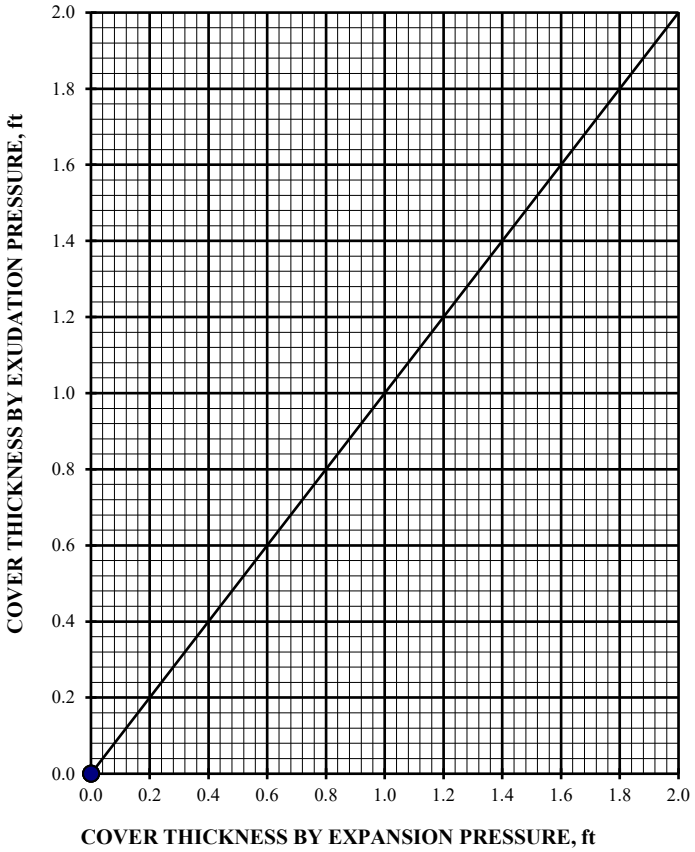
Boring #4 @ 0.0 - 4.0'
Brown Clayey Sand (SC)

Dry Density @ 300 psi Exudation Pressure: 131.6-pcf
%Moisture @ 300 psi Exudation Pressure: 9.8%
R-Value - Exudation Pressure: 46
R-Value - Expansion Pressure: N/A
R-Value @ Equilibrium: 46

EXUDATION PRESSURE CHART



EXPANSION PRESSURE CHART



Almond Acres
311 Orchard Lane, Soledad

306278-002

RESISTANCE '*R*' VALUE AND EXPANSION PRESSURE

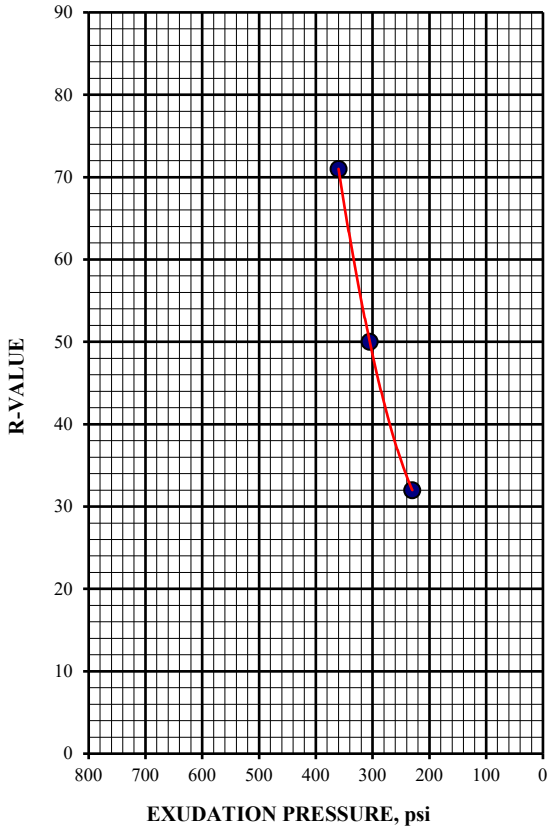
ASTM D 2844/D2844M-18

June 19, 2012

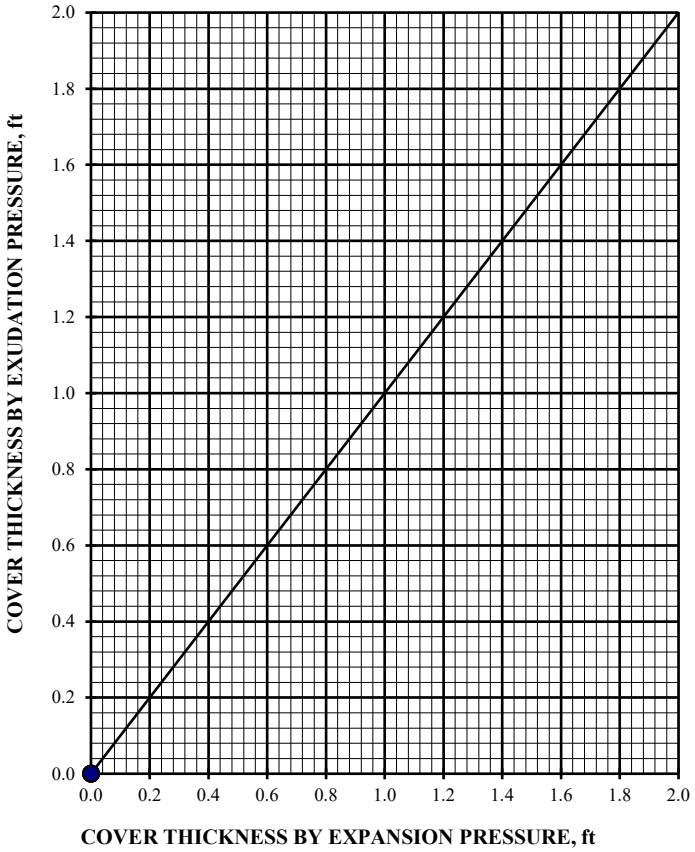
Boring #5 @ 0.0 - 4.0'
Brown Clayey Sand (SC)

Dry Density @ 300 psi Exudation Pressure: 137.7-pcf
%Moisture @ 300 psi Exudation Pressure: 9.5%
R-Value - Exudation Pressure: 48
R-Value - Expansion Pressure: N/A
R-Value @ Equilibrium: 48

EXUDATION PRESSURE CHART



EXPANSION PRESSURE CHART



CERCO analytical
1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com

4 March, 2024

Job No. 2402065
Cust. No. 11221

Ms. Maggy Arias
Earth Systems
500 Park Center Drive, Suite 1
Hollister, CA 95023

Subject: Project No.: 306546-001
Project Name: Almond Acres
Corrosivity Analysis – ASTM Test Methods

Dear Ms. Arias:

Pursuant to your request, CERCO Analytical has analyzed the soil sample submitted on February 28, 2024. Based on the analytical results, a brief corrosivity evaluation is enclosed for your consideration.

Based upon the resistivity measurement, the sample is classified as "mildly corrosive". All buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric coated steel or iron should be properly protected against corrosion depending upon the critical nature of the structure. All buried metallic pressure piping such as ductile iron firewater pipelines should be protected against corrosion.

The chloride ion concentration reflects none detected with a reporting limit of 15 mg/kg.

The sulfate ion concentration reflects none detected with a reporting limit of 15 mg/kg.

The pH of the soil is 6.50, which does not present corrosion problems for buried iron, steel, mortar-coated steel and reinforced concrete structures.

The redox potential is 110-mV and is indicative of potentially "moderately corrosive" soils resulting from anaerobic soil conditions.

This corrosivity evaluation is based on general corrosion engineering standards and is non-specific in nature. For specific long-term corrosion control design recommendations or consultation, please call *JDH Corrosion Consultants, Inc. at (925) 927-6630*.

We appreciate the opportunity of working with you on this project. If you have any questions, or if you require further information, please do not hesitate to contact us.

Very truly yours,
CERCO ANALYTICAL, INC.

for

J. Darby Howard, Jr., P.E.
President

JDH/jdl
Enclosure

CERCO analytical
1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com

Client:	Earth Systems Pacific
Client's Project No.:	306546-001
Client's Project Name:	Almond Acres
Date Sampled:	27-Feb-24
Date Received:	28-Feb-24
Matrix:	Soil
Authorization:	Signed Chain of Custody

Date of Report: 4-Mar-2024

Job/Sample No.	Sample I.D.	Redox (mV)	pH	Conductivity (umhos/cm)*	Resistivity (100% Saturation) (ohms-cm)	Sulfide (mg/kg)*	Chloride (mg/kg)*	Sulfate (mg/kg)*
2402065-001	8-1	110	6.50	-	16,000	-	N.D	N.D

Method:	ASTM D1498	ASTM D4972	ASTM D1125M	ASTM G57	ASTM D4658M	ASTM D4327	ASTM D4327
Reporting Limit:	-	-	10	-	50	15	15
Date Analyzed:	28-Feb-2024	29-Feb-2024	-	29-Feb-2024	-	29-Feb-2024	29-Feb-2024

* Results Reported on "As Received" Basis

N.D. - None Detected

Julia Clauson
Chemist

Quality Control Summary - **All laboratory quality control parameters were found to be within established limits**

APPENDIX C

Soil Infiltration Rate Test Data

Project: **Almond Acres Residential Development** File No. **306546-001**
311 Orchard Lane
Soledad, California

INFILTRATION TEST RESULTS

INFILTRATION TEST: I-1

TEST HOLE DIAMETER: 6 inches

DATE DRILLED: 2/14/24

CASING DIAMETER: 3 inches

DATE TESTED: 2/16/24

TEST HOLE DEPTH: 3 feet

TECHNICIAN: AH

RISER HEIGHT: 1.08 feet

CONSTANT HEAD DATA

TEST DURATION: 2 hours

Time of Constant Head: 30 minutes

Reference of Measurement: Top of Riser

Volume Added During Constant Head: 0.7 cubic feet

FALLING HEAD DATA

INTERVAL (Minutes)	READING (Feet)	INCREMENTAL FALL (Feet)	INFILTRATION RATE (Minutes / Inch)	INFILTRATION RATE (Inches / Hour)
Start	1.81	---	---	---
10	2.33	0.52	1.6	37.4
10	3.91	1.58	0.5	113.8
10	4.08	0.17	4.9	12.2
Start	2.83	---	---	---
10	3.45	0.62	1.3	44.6
10	3.89	0.44	1.9	31.7
10	4.08	0.19	4.4	13.7
Start	2.68	---	---	---
10	3.36	0.68	1.2	49.0
10	3.91	0.55	1.5	39.6
10	4.08	0.17	4.9	12.2
Start	2.31	---	---	---
10	3.34	1.03	0.8	74.2
10	3.92	0.58	1.4	41.8
10	4.08	0.16	5.2	11.5

Project: **Almond Acres Residential Development** File No. **306546-001**
311 Orchard Lane
Soledad, California

INFILTRATION TEST RESULTS

INFILTRATION TEST: I-2

TEST HOLE DIAMETER: 6 inches

DATE DRILLED: 2/14/24

CASING DIAMETER: 3 inches

DATE TESTED: 2/16/24

TEST HOLE DEPTH: 5.16 feet

TECHNICIAN: AH

RISER HEIGHT: 1 feet

CONSTANT HEAD DATA

TEST DURATION: 2 hours and 10 minutes

Time of Constant Head: 30 minutes

Reference of Measurement: Top of Riser

Volume Added During Constant Head: 0.7 cubic feet

FALLING HEAD DATA

INTERVAL (Minutes)	READING (Feet)	INCREMENTAL FALL (Feet)	INFILTRATION RATE (Minutes / Inch)	INFILTRATION RATE (Inches / Hour)
Start	2.00	---	---	---
10	2.46	0.46	1.8	33.1
10	2.74	0.28	3.0	20.2
10	2.93	0.19	4.4	13.7
10	3.17	0.24	3.5	17.3
10	3.26	0.09	9.3	6.5
10	3.37	0.11	7.6	7.9
10	3.74	0.37	2.3	26.6
10	3.75	0.01	83.3	0.7
10	3.76	0.01	83.3	0.7
10	3.76	0.00	0.0	0.0
10	3.76	0.00	0.0	0.0
10	3.77	0.01	83.3	0.7
10	3.77	0.00	0.0	0.0

Project: **Almond Acres Residential Development** File No. **306546-001**
311 Orchard Lane
Soledad, California

INFILTRATION TEST RESULTS

INFILTRATION TEST: I-3 **TEST HOLE DIAMETER: 6 inches**

DATE DRILLED: 2/14/24 **CASING DIAMETER: 3 inches**

DATE TESTED: 2/16/24 **TEST HOLE DEPTH: 8 feet**

TECHNICIAN: AH **RISER HEIGHT: 2 feet**

CONSTANT HEAD DATA **TEST DURATION: 2 hours**

Time of Constant Head: 30 minutes **Reference of Measurement: Top of Riser**

Volume Added During Constant Head: 2.0 cubic feet

FALLING HEAD DATA

INTERVAL (Minutes)	READING (Feet)	INCREMENTAL FALL (Feet)	INFILTRATION RATE (Minutes / Inch)	INFILTRATION RATE (Inches / Hour)
Start	2.45	---	---	---
10	4.08	1.63	0.5	117.4
10	5.16	1.08	0.8	77.8
10	5.85	0.69	1.2	49.7
10	6.45	0.60	1.4	43.2
10	6.81	0.36	2.3	25.9
10	7.10	0.29	2.9	20.9
10	7.41	0.31	2.7	22.3
10	7.66	0.25	3.3	18.0
10	7.99	0.33	2.5	23.8
10	8.20	0.21	4.0	15.1
10	8.41	0.21	4.0	15.1
10	8.62	0.21	4.0	15.1

Project: **Almond Acres Residential Development** File No. **306546-001**
311 Orchard Lane
Soledad, California

INFILTRATION TEST RESULTS

INFILTRATION TEST: I-4 **TEST HOLE DIAMETER: 6 inches**

DATE DRILLED: 2/14/24 **CASING DIAMETER: 3 inches**

DATE TESTED: 2/16/24 **TEST HOLE DEPTH: 8.1 feet**

TECHNICIAN: AH **RISER HEIGHT: 2 feet**

CONSTANT HEAD DATA **TEST DURATION: 2 hours**

Time of Constant Head: 30 minutes **Reference of Measurement: Top of Riser**

Volume Added During Constant Head: 5.3 cubic feet

FALLING HEAD DATA

INTERVAL (Minutes)	READING (Feet)	INCREMENTAL FALL (Feet)	INFILTRATION RATE (Minutes / Inch)	INFILTRATION RATE (Inches / Hour)
Start	3.19	---	---	---
10	6.16	2.97	0.3	213.8
10	6.99	0.83	1.0	59.8
10	7.45	0.46	1.8	33.1
10	7.70	0.25	3.3	18.0
10	7.88	0.18	4.6	13.0
10	8.05	0.17	4.9	12.2
10	8.18	0.13	6.4	9.4
10	8.36	0.18	4.6	13.0
10	8.46	0.10	8.3	7.2
10	8.59	0.13	6.4	9.4
10	8.75	0.16	5.2	11.5
10	8.84	0.09	9.3	6.5

Project: **Almond Acres Residential Development** File No. **306546-001**
311 Orchard Lane
Soledad, California

INFILTRATION TEST RESULTS

INFILTRATION TEST: I-5 **TEST HOLE DIAMETER: 6 inches**

DATE DRILLED: 2/14/24 **CASING DIAMETER: 3 inches**

DATE TESTED: 2/16/24 **TEST HOLE DEPTH: 4.9 feet**

TECHNICIAN: AH **RISER HEIGHT: 0.86 feet**

CONSTANT HEAD DATA **TEST DURATION: 2 hours**

Time of Constant Head: 30 minutes **Reference of Measurement: Top of Riser**

Volume Added During Constant Head: 3.3 cubic feet

FALLING HEAD DATA

INTERVAL (Minutes)	READING (Feet)	INCREMENTAL FALL (Feet)	INFILTRATION RATE (Minutes / Inch)	INFILTRATION RATE (Inches / Hour)
Start	2.41	---	---	---
10	4.64	2.23	0.4	160.6
10	5.30	0.66	1.3	47.5
10	5.67	0.37	2.3	26.6
10	5.76	0.09	9.3	6.5
Start	2.58	---	---	---
10	4.71	2.13	0.4	153.4
10	5.28	0.57	1.5	41.0
10	5.64	0.36	2.3	25.9
10	5.76	0.12	6.9	8.6
Start	1.87	---	---	---
10	3.91	2.04	0.4	146.9
10	5.34	1.43	0.6	103.0
10	5.67	0.33	2.5	23.8
10	5.76	0.09	9.3	6.5

Project: **Almond Acres Residential Development** File No. **306546-001**
311 Orchard Lane
Soledad, California

INFILTRATION TEST RESULTS

INFILTRATION TEST: I-6

TEST HOLE DIAMETER: 6 inches

DATE DRILLED: 2/14/24

CASING DIAMETER: 3 inches

DATE TESTED: 2/16/24

TEST HOLE DEPTH: 3.25 feet

TECHNICIAN: AH

RISER HEIGHT: 1.31 feet

CONSTANT HEAD DATA

TEST DURATION: 1 hour and 30 minutes

Time of Constant Head: 30 minutes

Reference of Measurement: Top of Riser

Volume Added During Constant Head: 2.4 cubic feet

FALLING HEAD DATA

INTERVAL (Minutes)	READING (Feet)	INCREMENTAL FALL (Feet)	INFILTRATION RATE (Minutes / Inch)	INFILTRATION RATE (Inches / Hour)
Start	2.87	---	---	---
10	4.32	1.45	0.6	104.4
10	4.56	0.24	3.5	17.3
Start	1.41	---	---	---
10	3.61	2.20	0.4	158.4
10	4.26	0.65	1.3	46.8
10	4.51	0.25	3.3	18.0
Start	1.68	---	---	---
10	3.10	1.42	0.6	102.2
10	3.80	0.70	1.2	50.4
10	4.28	0.48	1.7	34.6
10	4.51	0.23	3.6	16.6

VMT Assessment

APPENDIX G

Hexagon Transportation Consultants, Inc.

Memorandum

Date: January 14, 2025

To: Ron Sissem, EMC Planning Group

From: Robert Del Rio, T.E., Luis Descanzo

Subject: Vehicle Miles Traveled Assessment for the Proposed Almond Acres Residential Development in Soledad, California

Hexagon Transportation Consultants, Inc. has completed a Vehicles Miles Traveled (VMT) assessment for the proposed Almond Acres residential subdivision development project located in Soledad, California (see Figure 1). The 12.48-acre project site (APN 022-281-005) is currently occupied by a mobile home park, three single-family residences, and undeveloped land (see Figure 2). The project as proposed consists of the construction of 55 single-family homes and 12 affordable multifamily residential units. No changes to the mobile home park are proposed. Vehicular access to and from the project site would be provided via Cedar Lane and an extension of Cadena Drive.

The methodology, results, and recommendations of the analysis are discussed below.

VMT Assessment Methodology

Pursuant to Senate Bill (SB) 743, the California Environmental Quality Act (CEQA) 2019 Update Guidelines Section 15064.3, subdivision (b) states that VMT will be the metric in analyzing transportation impacts for land use projects for CEQA purposes. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle-trips with one end within the project.

It should be noted that the City of Soledad has yet to adopt a City specific VMT policy and thresholds for impact that are consistent with CEQA guidelines. Monterey County, at the time of this report, is undertaking a process of updating its transportation policies to incorporate VMT methodologies and significance thresholds to be but has not released draft thresholds. In the absence of adopted City and/or County policies with impact standards and thresholds, this assessment relies on the Governor's Office of Planning and Research (OPR) guidelines in analyzing the project's effects on VMT.

VMT Policies and Impact Criteria

The *Technical Advisory on Evaluating Transportation Impacts in CEQA* published by OPR in December 2018 provides recommendations regarding VMT evaluation methodology and significance thresholds for the evaluation of land use projects.

Per OPR's technical advisory, home-based VMT per resident (capita) is the recommended metric to evaluate CEQA-related transportation impacts for residential land uses. As stated in the technical advisory, OPR recommends an impact threshold of 15% below the existing VMT levels for residential land uses. OPR allows the existing VMT to be measured as regional or citywide VMT per capita.

Figure 1
Site Location

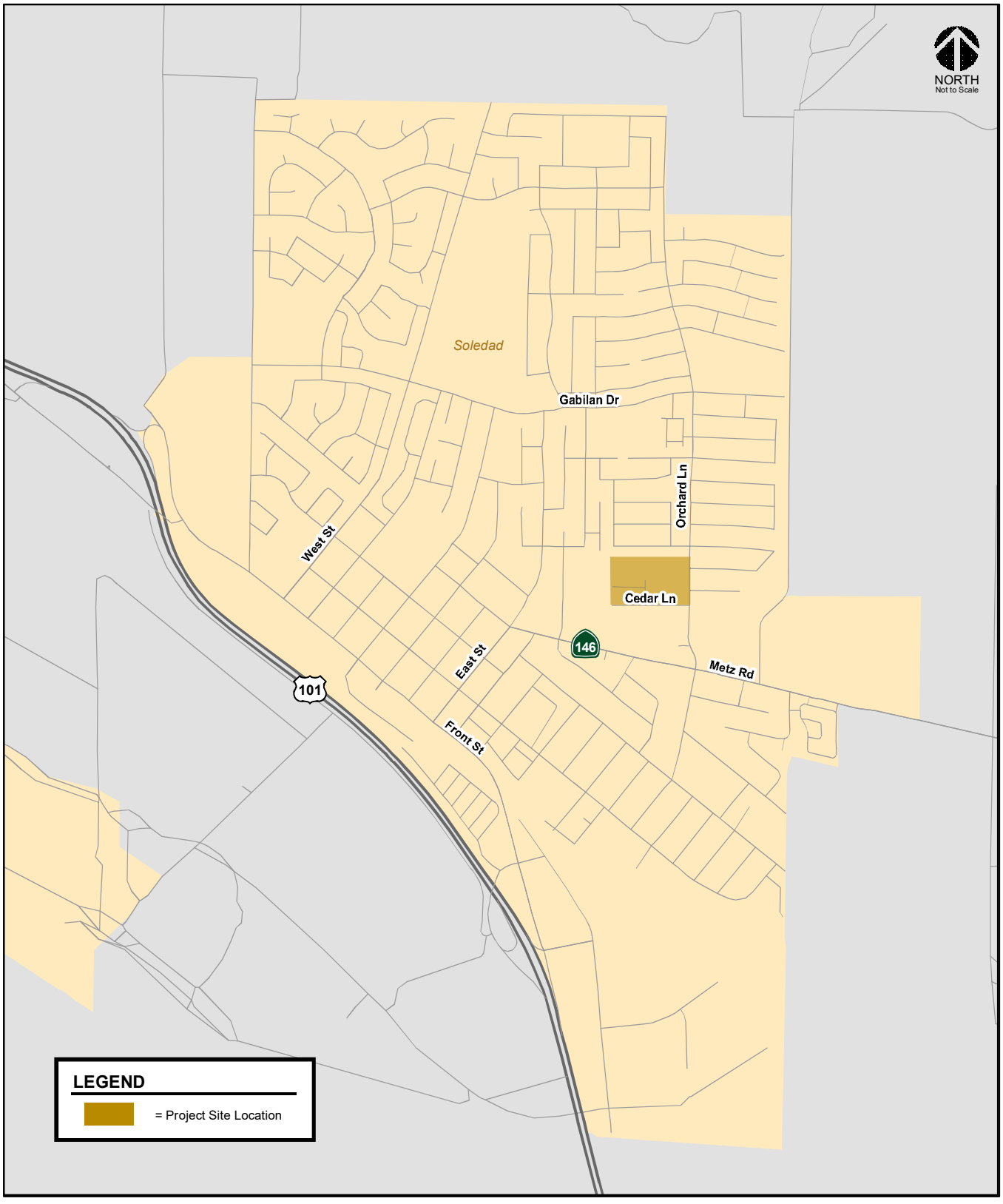
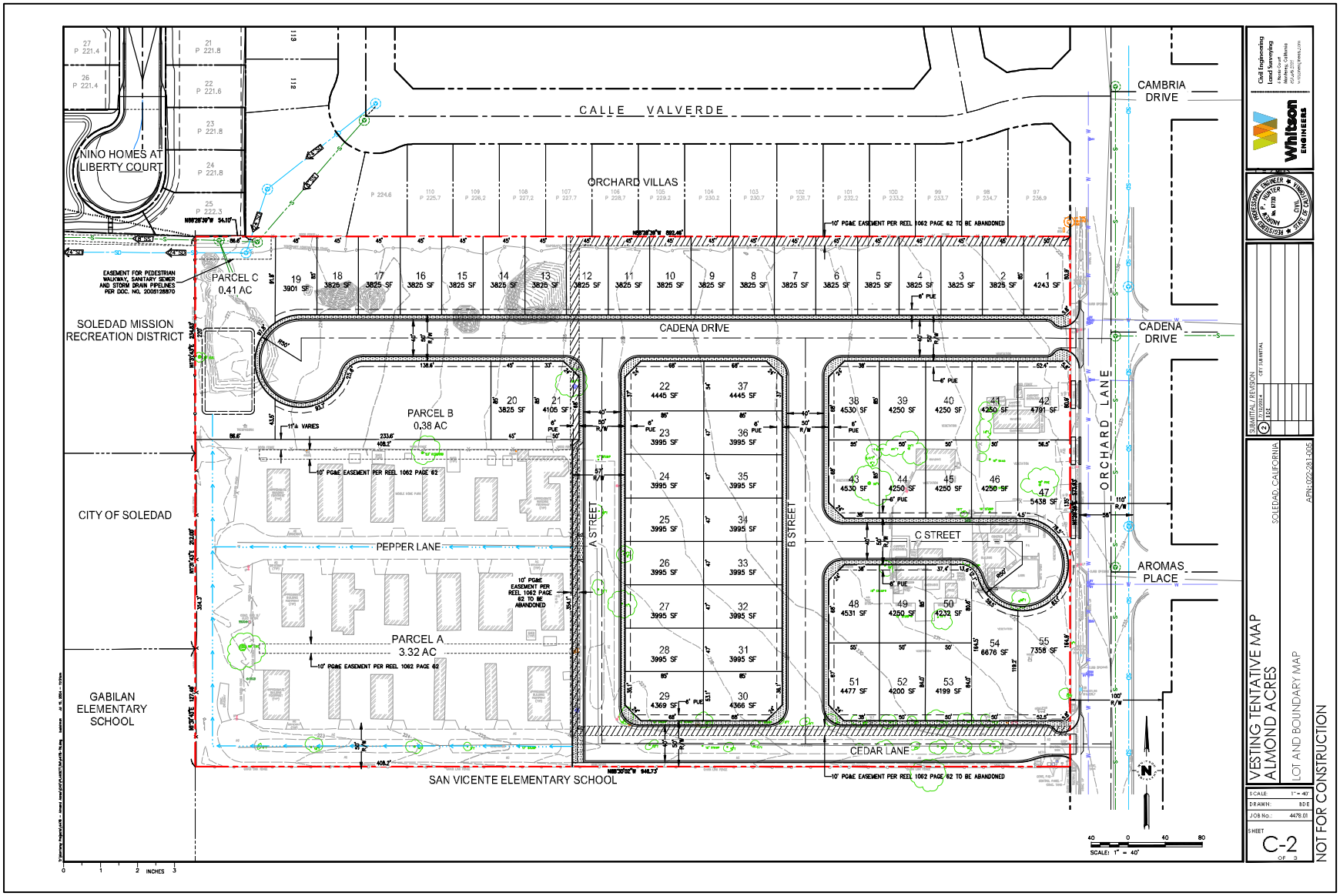


Figure 2
Site Plan



Since the City of Soledad is situated in a rural setting and distant from other communities and densely populated cities, the citywide area is selected as the "region" in computing averages for the VMT per capita threshold. Therefore, this VMT assessment assumes an impact threshold of 15% below the existing citywide VMT per capita.

Regional Travel Demand Model

The Association of Monterey Bay Area Governments (AMBAG) develops and maintains a Regional Travel Demand Model (RTDM). The model is a mathematical representation of travel within the three counties in the Monterey Bay Region and is mainly composed of four components: 1) trip generation, 2) trip distribution, 3) mode choice, and 4) trip assignment. The model uses socioeconomic inputs (i.e. households, number of jobs, hotel rooms) to estimate travel within Monterey County, Santa Cruz County and San Benito County. Socioeconomic inputs are aggregated into geographic areas called transportation analysis zones (TAZs). There are 1,839 TAZs within the model to represent the three counties. The model is the best available tool to represent travel within Monterey County and serves as the primary forecasting tool for the County.

The AMBAG model indicates that the citywide average home-based VMT per capita is currently 13.2. Thus, the project will result in a significant impact if it results in project-generated VMT of 11.2 VMT per capita, 15% below the existing citywide average, or greater.

If a project is found to have a significant impact on VMT, the impact must be reduced by modifying the project to reduce its VMT to an acceptable level (below the established thresholds of significance applicable to the project) and/or mitigating the impact through VMT reducing measures, which can include implementing Transportation Demand Management (TDM) measures.

Project VMT Calculation

The project site is located within TAZ 1666 of the AMBAG model. It is assumed that the proposed project would exhibit similar travel characteristics and have the same home-based VMT per capita as other residential uses within the project TAZ and surrounding TAZs in the project area. For the purpose of this VMT analysis, the project VMT is calculated using as weighted average of the project TAZ and adjacent TAZs. The TAZs analyzed are TAZs 1651, 1658, 1657, 1659, 1664, 1670, and 1666 (project TAZ) of the AMBAG model.

Project VMT Impact Analysis Results

The results of the VMT analysis indicates that the proposed project would have a home-based VMT per capita of 12.7. Because the project's VMT per capita would exceed the impact threshold of 11.2 VMT per capita, the proposed project would have an impact on the transportation system based on the OPR's recommended VMT impact criteria. The VMT analysis results are summarized in Table 1.

Table 1
VMT Analysis Summary

Residential Home-Based VMT per Capita				
Citywide Average	VMT Threshold	Project VMT	VMT Impact?	% Reduction Needed to Eliminate Impact
13.2	11.2	12.7	Yes	11.7%

Notes:
VMT = Vehicle Miles Traveled
All data generated by the AMBAG regional travel demand model.

Project Impacts and VMT Reduction Features/Measures

Project Impact: Since the VMT generated by the project (12.7 VMT per capita) would exceed the threshold of 11.2 VMT per capita, the project would result in a significant transportation impact on VMT. Therefore, VMT reduction measures are required to reduce the VMT generated by the project. Per the OPR's impact thresholds, the project would need to implement VMT reduction measures to achieve an 11.7% reduction (12.7 to 11.2) in its VMT per capita to reduce its impact to less than significant levels.

VMT Reduction Features/Measures: OPR's 15% below existing VMT impact threshold encourages developments in transit-rich, highly mixed-use areas to implement design features and trip reduction measures to take advantage of existing multi-model infrastructure and land use mixes in reducing trip making and/or trip lengths.

The project's proposed affordable residential component (12 multifamily units) is likely to generate fewer trips compared to market-rate units. It can be assumed that every percent reduction in peak hour vehicle-trips is equivalent to a one percent reduction in per-capita VMT. Trip generation estimates indicate the project as proposed would produce approximately 3.5% fewer daily trips compared to all-market rate units. Therefore, the project qualifies for a 3.5% reduction in per-capita VMT due to its affordable housing component.

However, the project is located in a rural setting with a limited transit network and a discontinuous pedestrian network:

- Sidewalks are mostly continuous within residential and commercial areas. Sidewalks are typically missing along industrial uses or undeveloped properties.
- Although the Soledad Circulator (Route 32) provides transit service within the City of Soledad, transit service to destinations outside of Soledad consists of fixed-route services (Routes 23/23X) with up to one-hour headways. Only two bus stops are located within Soledad (Front/San Vicente and Mission Center), both of which are more than one mile walking-distance from the project site, or require a timed transfer using the Soledad Circulator.

Therefore, it is highly unlikely that residential developments like the proposed project in the County can achieve the OPR recommended 15% reduction in VMT. Absent of the City allowing an exception for a reduced VMT impact threshold, the proposed project VMT impact would be significant and unavoidable.

Appendix A - VMT Reduction due to Affordable Housing Component

Land Use	Size	Daily Rate	Daily Trip
All-Market Rate Units			
#220 - Multifamily Housing (Low-Rise)	**12** Dwelling Units	6.740	81
#210 - Single-Family Detached Housing	**55** Dwelling Units	10.585	582
Total Project Trips (All-Market Rate)	67 Dwelling Units		**663**
Affordable Multifamily Units			
#223 - Affordable Housing	**12** Dwelling Units	4.810	58
#210 - Single-Family Detached Housing	**55** Dwelling Units	10.585	582
Total Project Trips (Affordable Units)	67 Dwelling Units		**640**
Percent Reduction due to Affordability			**3.5%**

Source: ITE Trip Generation Manual, 11th Edition 2021 (Equation Rates)