Somis Ranch Farmworker Housing Complex

Final Environmental Impact Report

Volume I of II

SCH No. 2020049020

prepared by

Ventura County Resources Management Agency
Planning Division
800 South Victoria Avenue, L# 1740
Ventura, California 93009
Contact: Justin Bertoline, Senior Planner

County of Ventura
Board of Supervisors
Case No. PL19-0046
Exhibit 2a - Final Environmental Impact Report

prepared with the assistance of

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

January 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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Volume I – Final Environmental Impact Report

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1 Introduction

1.1 Final EIR Contents

This Final Environmental Impact Report (Final EIR) has been prepared by the County of Ventura, Resource Management Agency, Planning Division (County) to evaluate the potential environmental impacts of the proposed Somis Ranch Farmworker Housing Complex Project ("proposed project" or "project").

As prescribed by the California Environmental Quality Act (CEQA) *Guidelines* Sections 15088 and 15132, the lead agency, the County, is required to evaluate comments on environmental issues received from persons who have reviewed the Draft EIR and to prepare written responses to those comments. This document, together with the Draft EIR (incorporated by reference) comprise the Final EIR for this project. This Final EIR includes individual responses to each letter received during the public review period for the Draft EIR. In accordance with CEQA *Guidelines* Section 15088(c), the written responses describe the disposition of significant environmental issues raised.

The County has provided a good faith effort to respond to all significant environmental issues raised by the comments. The Final EIR also includes amendments to the Draft EIR consisting of changes suggested by certain comments, as well as minor clarifications, corrections, or revisions to the Draft EIR. The Final EIR includes the following contents:

- Section 1: Introduction
- Section 2: Responses to Comments on the Draft EIR, which also includes a list of all commenters and public comment letters
- Section 3: Amendments to the Draft EIR
- Section 4: Mitigation Monitoring and Report Program
- Appendices, which includes revised appendices

1.2 Draft EIR Public Review Process

The County filed a notice of completion (NOC) with the Governor's Office of Planning and Research to begin the 45-day public review period (Public Resources Code [PRC] Section 21161), which began on September 21, 2020 and ended on November 5, 2020. The Draft EIR was made available on the County's website (https://vcrma.org/divisions/planning). A notice of availability (NOA) of the Draft EIR was published on September 18, 2020. As a result of these notification efforts, written and verbal comments on the content of the Draft EIR were received from six State and local agencies, one organization, and three individuals. Section 2, "Responses to Comments on the Draft EIR," identifies these commenting parties, their respective comments, and responses to these comments. None of the comments received, or the responses provided, constitute "significant new information" by CEQA standards (State CEQA Guidelines CCR Section 15088.5).

1.3 EIR Certification Process and Project Approval

Before adopting the proposed project, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the lead agency.

Upon certification of an EIR, the lead agency makes a decision on the project analyzed in the EIR. A lead agency may: (a) disapprove a project because of its significant environmental effects; (b) require changes to a project to reduce or avoid significant environmental effects; or (c) approve a project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (State CEQA Guidelines Sections 15042 and 15043).

In approving a project, for each significant impact of the project identified in the EIR, the lead or responsible agency must find, based on substantial evidence, that either: (a) the project has been changed to avoid or substantially reduce the magnitude of the impact; (b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or (c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (State CEQA Guidelines Section 15091). Per PRC Section 21061.1, feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account, economic, environmental, legal, social, and technological factors.

If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision and explains why the project's benefits outweigh the significant environmental effects (State CEQA Guidelines Section 15093).

When an agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects (State CEQA Guidelines Section 15091[d]).

1.4 Draft EIR Recirculation Not Required

CEQA Guidelines Section 15088.5 requires Draft EIR recirculation when comments on the Draft EIR or responses thereto identify "significant new information." Significant new information is defined as including:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
4. The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The comments, responses, and Draft EIR amendments presented in this document do not constitute such "significant new information;" instead, they clarify, amplify, or make insignificant modifications to the Draft EIR. For example, none of the comments, responses, and Draft EIR amendments

disclose new or substantially more severe significant environmental effects of the proposed project, or new feasible mitigation measures or alternatives considerably different than those analyzed in the Draft EIR that would clearly lessen the proposed project's significant effects.

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2 Responses to Comments on the Draft EIR

This section includes comments received during public circulation of the Draft Environmental Impact Report (EIR) prepared for the Somis Ranch Farmworker Housing Complex (Project).

The Draft EIR was circulated for a 30-day public review period that began on September 21, 2020 and ended on November 5, 2020. The Ventura County Resources Management Agency received 12 comment letters on the Draft EIR. The commenters and the page number on which each commenter's letter appear are listed below.

The comment letters and responses follow. The comment letters are numbered sequentially and each separate issue raised by the commenter, if more than one, has been assigned a number. The responses to each comment identify first the number of the comment letter, and then the number assigned to each issue (Response 1.1, for example, indicates that the response is for the first issue raised in Comment Letter 1).

Where a comment resulted in a change to the Draft EIR text, a notation is made in the response indicating that the text is revised. Changes in text are signified by strikeout font (~~strikeout font~~) where text was removed and by underlined font (<u>underlined font</u>) where text was added. These changes in text are also included in Section 3, *Revisions to the Draft EIR*.

Letter 1

City of Camarillo

601 Carmen Drive • P.O. Box 248 • Camarillo, CA 93011-0248

Office of the City Manager
(805) 388-5307
FAX (805) 388-5318

November 4, 2020

Justin Bertoline, Permit Planner
Ventura County Government Center Administration Building - 3rd Floor
Resource Management Agency - Planning Division
800 S. Victoria Avenue
Ventura, CA 93009

Dear Mr. Bertoline:

We appreciate the opportunity to review and comment on the proposed Somis Ranch Farmworker Housing Project (Case No. PL19-0046). After reviewing the Draft Environmental Impact Report that is being circulated for public review and comment, we have the following comments for your consideration:

The following comments are from the City's Community Development Department:

1. The project is located immediately adjacent to the City of Camarillo City limits and Sphere of Influence. The City would like to express its position that the proposed project be carefully evaluated to assure compatibility with surrounding land uses in the City and designed to complement existing development in the surrounding area. The City of Camarillo General Plan includes a Community Design Element that was adopted by the Camarillo City Council in 2012. The policies and guidelines of the City of Camarillo's Community Design Element should be considered in evaluation of the project. 1.1

1. **Walls and Fencing:** The project description and site plan should include any proposed walls or fences proposed around the project. Any walls and fencing should be decorative and include planting in front of it, as SR-34 is identified as a scenic corridor in the City of Camarillo's General Plan Community Design Element. 1.2

2. **Site Plan:** Show the two driveways that the project will take access from Somis Road on the site plan. 1.3

3. **Noise Impacts:** Construction noise should be analyzed for potential impacts to Rancho Campana High School. Although these impacts may be temporary and therefore not constitute a significant impact, it should be evaluated and mitigation should be considered in order to reduce any temporary impacts. 1.4

4. **Soil Transport During Construction:** The Draft EIR states that the project anticipates approximately 33,600 cy of soil to be imported throughout the three phases of 1.5

development. The Draft EIR should include in the Transportation section the truck route and any potential impacts during construction due to truck traffic.

5. **Agricultural Buffer:** At the southeast corner of the 18.43-acre development area, it appears that the agricultural buffer stops as the access drive turns southwest then south. The agricultural buffer should be continued, as it appears that adjacent to the driveway the land will continue to be used for agricultural use. 1.6

The following comments are from the City's Public Works Department:

1. **Executive Summary, Construction:** Page ES-3, second paragraph states that Phase 1 construction would begin in August 2021. Construction activities for the City's North Pleasant Valley Groundwater Desalter are occurring at this time and expected to be completed by December 2021. The City's North Pleasant Valley Groundwater Desalter construction staging area occupies the southern portion of the proposed project and will continue to occupy it until December 2021, which could interfere with the proposed project's schedule. 1.7

2. **Table 1-1 Agency Comments on the NOP and EIR Responses:** Pages 1-3 and 1-4 - The table did not list item 9 on the City's June 12, 2019 letter, nor did it address the City's concerns identified in that letter. This is an updated comment to item 9:

    a. The DEIR states, at the top of Page ES-3, that recycled water treated effluent may be used for landscape irrigation (on-site), agricultural irrigation (off-site), and/or seepage pits. The DEIR does not provide information on potential health impacts from using the recycled water in this manner. Specifically, are there any health risks or potential contamination of the City's groundwater supply by use of seepage pits and irrigation methods? 1.8

3. **Section 2.5.1.2 and Figure 2-3a** shows one of the access roads (south entrance) will be shared by City's North Pleasant Valley Groundwater Desalter. A portion of this road was designed and will be constructed for access to the Desalter. Additional improvements to the access road, including a bicycle/pedestrian pathway, will be necessary in order to accommodate the number and types of vehicles that will access the proposed project. These additional improvements will be designed and constructed as part of the project, and not by the City of Camarillo. This access road needs to be available to the City's Desalter for its operation. 1.9

4. **Section 2.5.1.2 and Figure 2-3b "Road to be built by others"** – Please clarify who are "the others". 1.10

5. **Section 2.5.4 Construction** on Page 2-17, fifth paragraph - Construction activities for the City's North Pleasant Valley Groundwater Desalter are occurring at this time and are expected to be completed by December 2021. The City's North Pleasant Valley Groundwater Desalter construction staging area occupies the southern portion of the proposed project and will continue to occupy it until December 2021, which could interfere with the proposed project's schedule. 1.11

6. **Section 4.7 Transportation** Comments regarding the **Revised Traffic Study, dated February 21, 2020**, by Associated Transportation Engineers are as follows: 1.12

a. Page 13 – Project Trip Distribution and Assignment refers to "Fas Posas Valley." Revise to be "Las Posas Valley." There are at least four places to revise on this page.

b. Page 14 - Figure 5, the project trip distribution does not equal 100%. There are some strange symbols on this figure that need to be corrected. For example, box diagrams 1 through 6 look incorrect, there is a capital "C" and an encircled "R" at the top right corner; perhaps one of these symbols was supposed to be a trip distribution value. 1.13

c. Page 26 - Site Access. Paragraph states there will be two shared access connections to Somis Road. However, only the southern access connection to Somis Road will be shared between the Desalter and the project. 1.14

d. Page 31 – Safe Routes to School. Rancho Campana High School is an academy school and limits enrollment. Admittance into the school is by qualification and lottery. Have there been discussions with the Oxnard Union High School District regarding this project? 1.15

e. General Comments about the report:

   i. This report has many strange symbols atop the original document.

   ii. The map on the cover page appears incorrect; Richard Pool's Civil Engineering seal has a "W", "S" and other strange symbols covering it. 1.16

   iii. Figures 1 through 9 all appear incorrect. They have strange symbols corrupting the report. Perhaps the software was incorrectly configured when it was printed.

   iv. The font size and style changes, repeatedly, throughout the document.

7. **Section 4.7.2.2 Project Impacts and Mitigation Measures, Mitigation Measures, Impact T-2:** Page 4.7-10, last paragraph – "The City of Camarillo will construct a new access connection to Somis Road and improve an existing connection to Somis Road as part of the North Pleasant Valley Groundwater Desalter Facility..." "A shared access agreement allowing the project to utilize the two driveway connections has been established." "The City of Camarillo will be required to construct the access connections to Somis road to County of Ventura and Caltrans design standards." 1.17

   The City of Camarillo will only be constructing a portion of the southern access road connection to Somis Road. Additional improvements to the access road, including a bicycle/pedestrian pathway, will be necessary in order to accommodate the number and types of vehicles that will access the proposed project. These additional improvements will be designed and constructed as part of the project and not by the City of Camarillo.

8. **Section 4.8 Waste Treatment and Disposal:** Page 4.8-1, first paragraph – Revise "Wafstewater" to read "Wastewater." 1.18

9. **Section 4.8.2.2 (Impact SW-1):** Page 4.8-3, first paragraph – Revise "For these reasons, the Camarillo Sanitary District on-site wastewater treatment…" to read "For these reasons, the on-site wastewater treatment…" thereby deleting the reference to the Camarillo Sanitary District on-site. 1.19

10. **Section 4.8.2.2 (Impact SW-1):** Page 4.8-3, second paragraph, last sentence – Revise "…either the county or City of Camarillo sewer system." to read ""…either the county or Camarillo Sanitary District sewer system." 1.20

11. **Section 4.8.2.2 (Impact SW-1):** Page 4.8-3, third paragraph – Revise to include information on analysis of impact to groundwater from recycled water in seepage pits not Section 4.9, Water Resources – Surface Water Quality this section analyzes impacts to surface water not groundwater quality which could be impacted from contents of recycled water not meeting regulatory standards which is stored in seepage pits. 1.21

12. **Section 4.9 Water Resources:** analyzes impacts to surface waters. There needs to be an environmental analysis on the impact to groundwater. The irrigation of recycled water and the construction and operation of a seepage pit need to identify potential impacts to groundwater quality and ensuring that regulatory requirements (both regional and State) are addressed. 1.22

13. **Section 4.9 Water Resources**: need to add information and description of Ventura County's LAMP regulatory program for septic system, which include seepage pits (this is a component of the project). 1.23

14. **Section 4.9.1.3**: Page 4.9-3 - Water quality impairments in the Calleguas Creek and Calleguas Creek Watershed need to add – trash, toxicity, salts (chloride, TDS); sulfate and Boron are already listed. Table 4.9-1 has a complete listing of water quality impairments. 1.24

If you have any questions about the comments contained within this letter, please contact Michelle Glueckert D'Anna, Community Relations Officer, at (805) 388-5370 or mdanna@cityofcamarillo.org. We look forward to the continued coordination between the City and County throughout the processing of this project.

Sincerely,

Greg Ramirez
City Manager

Encl: Letter from Tully Clifford, dated May 12, 2020
Letter from Dave Norman, dated June 12, 2019

Letter 1

COMMENTER: Greg Ramirez, City Manager, City of Camarillo

DATE: November 4, 2020

Response 1.1

The commenter states that the proposed project is located immediately adjacent to the City of Camarillo City limits and Sphere of Influence, and suggests that the City of Camarillo's Community Design Element should be considered in evaluation of the project.

The project is located in unincorporated Ventura County and is not subject to the City guidelines. Nevertheless, information regarding general compatibility is provided herein. The Community Design Element establishes goals, policies, and guidelines to assist the City in preserving and enhancing its physical and visual character. General goals of the City of Camarillo Community Design Element that are applicable to the project include promoting a hometown community with a strong sense of identity; including preserving historic agricultural roots; protecting greenbelts; preserving the character of residential neighborhoods, including an objective to ensure multi-family residential development is compatible with surrounding land uses; and promoting the use of green construction practices through sustainable design guidelines.

The proposed farmworker housing complex would support and preserve the community's historic agriculture roots and ongoing industry by providing local farmworker housing proximate to agricultural operations in Somis. The project would also preserve a 17.93-acre continued agricultural use parcel on the project site. The architectural style of the residential buildings would be "Spanish Colonial" and would not degrade the visual character of the City. The project's on-site amenities, such as community centers, play fields, tot lots/playgrounds, a basketball court, a community garden area, and a network of meandering pedestrian walkways would promote a "hometown" community. The proposed location would provide residents convenient access to nearby services such as a library, schools, commercial centers, and religious institutions. The nearest single-family residential community is located 250 feet to the southeast across Somis Road. In addition, the proposed CWWTF would provide high quality recycled water to adjacent agricultural fields. As such, the project is compatible with surrounding land uses. The project is generally consistent with the relevant provisions of the Community Design Element.

Response 1.2

The commenter requests that the project description and site plan include any proposed walls or fences. The commenter suggests that any walls or fences should be decorative and include screening planting.

Figure 2-6 of the Draft EIR shows the landscape plan for the proposed project. EIR preparers discussed this comment with the project applicant, who has confirmed that final design of any walls or fences would be consistent with the City's Community Design Element. This design consistency has been added to page 2-12 of the Final EIR.

Response 1.3

The commenter suggests that the site plan should show the two access driveways.

It was determined the addition of the access driveways to Figure 2-3b, Housing Complex Site Plan, in the Draft EIR would make the site plan illegible. The draft Tentative Parcel Map has been added as Appendix N to this Final EIR and includes the two access driveways.

Response 1.4

The commenter states construction noise impacts to Rancho Campana High School should be evaluated even though impacts would be temporary.

Construction noise impacts are analyzed under Impact N-1 in Section 4.5, *Noise* in the Draft EIR. As stated in Section 4.5.2.1 of the Draft EIR, construction noise levels were calculated to be 79.1 dBA L_{eq} at 50 feet. The following text has been added to pages 4.5-10 of the Final EIR to specifically address construction noise levels at Rancho Campana High School:

> The Ventura County Construction Noise Threshold and Control Plan defines noise-sensitive receivers according to their typical sensitive time period. Residential uses are considered sensitive during the evening and nighttime hours (7:00 p.m. to 7:00 a.m.), while schools, churches, and libraries are considered sensitive during the daytime hours when in use (7:00 a.m. to 7:00 p.m.). Project construction would only occur during the daytime hours; therefore, no noise-sensitive residences would be exposed to construction noise. Over the course of a typical construction day, construction equipment would be located as close as 350 feet to the nearest daytime noise-sensitive receiver structure at the Rancho Campana High School to the west. A conservative estimate of noise attenuation is that noise levels attenuate at 6 dBA per doubling distance; therefore, the noise level at the nearest structure Rancho Campana High School is estimated at 62.2 dBA L_{eq}.

Section 10.34.120 of the City of Camarillo Municipal Code exempts construction noise from City standards, if construction does not occur between seven p.m. to seven a.m., on Sundays, or holidays. Construction would not occur during these hours. In lieu of a quantitative construction standard in the City, the FTA Transit Noise and Vibration Impact Assessment criteria[1] are used. The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction. For residential uses (the most restrictive standard), the daytime construction noise threshold is 80 dBA L_{eq} for an 8-hour period. Therefore, the project's construction noise level of 62.2 dBA L_{eq} is well below the FTA threshold. Impacts from project construction noise to Rancho Campana High School would be less than significant.

Response 1.5

The commenter states that the Transportation section of the Draft EIR should account for the truck route used for soil haul trips associated with the 33,600 cy of soil import.

The following text has been added to page 2-17 of the Final EIR:

> Construction activities for Phases 1, 2, and 3 would require a total of approximately 1,500 cubic yards (cy) of cut soil and 35,100 cy of fill soil, resulting in the import of approximately 33,600 cy of soil to the project site. No soil export would be necessary. Roads used for soil haul trips would primarily include Highway 101 and SR 34. Construction staging and construction work parking would occur on the project site.

[1] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment. November 2018. Available online: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

Based on assumptions used for the CalEEMod model run, there would be 1,400 trips each for the three grading phases with an average length of 20 miles. These phases include 45 days of construction each, resulting in about 31 trips per day on average of construction hauling trips. This is a negligible increase in traffic and would not be significant.

Response 1.6

The commenter suggests that the agricultural buffer running along the eastern side of the proposed development footprint should be extended south along the access driveway, as it appears in the project figures that the land adjacent to the driveway will continue to be used for agricultural activity.

The eastern driveway would follow a proposed 50-foot-wide easement north of the existing Bell Ranch residences and agricultural buildings and would provide access to the housing complex from the east. On this portion of the project site, the 50-foot-wide access road and easement would serve as a buffer between the project site and the adjacent agricultural use in the same way that the access road at the City's Desalter Facility will serve as a buffer between the Desalter Facility and the adjacent agricultural use. No revision to agricultural buffer as identified in the Draft EIR is required in response to this comment.

Response 1.7

The commenter states that construction activities associated with the City's North Pleasant Valley Groundwater Desalter will be occurring through December 2021 and the construction staging will occupy the southern portion of the project site. The commenter notes that this could interfere with the proposed project's Phase 1 construction, which is scheduled to commence in August 2021.

Construction equipment would enter and exit the project site from the secondary access road and would not conflict with construction activities or access to the Desalter site. Clearing, grubbing, and mass grading of the project site are not anticipated to commence until after December 2021.

Response 1.8

The commenter states that Table 1-1: Agency Comments on the NOP and EIR Responses in the Draft EIR does not include item 9 from the City's June 12, 2019 NOP letter, which is attached to this comment letter and pertains to the community wastewater treatment facility (CWWTF) effluent. The commenter states the Draft EIR does not provide information on potential health impacts associated with recycled water. The commenter asks whether there are any health risks associated with the proposed seepage pits and the proposed use of recycled water for outdoor irrigation.

Public health impacts associated with operation of the CWWTF are discussed in Section 4.6, *Public Health*, of the Draft EIR.

As noted on page 4.6-5 of the Draft EIR:

> An OWTS that is undersized, improperly installed, failing, or poorly maintained has the potential to create a public nuisance and/or contaminate groundwater. Wastewater from an OWTS can contain contaminants such as nitrates, bacteria, chemicals, and viruses. If an OWTS is designed incorrectly or is not constructed in conformance with applicable building codes and construction practices, contaminants can enter the groundwater supply or streams and may result in the ponding of sewage aboveground, causing direct exposure to people and animals.

As noted on page 4.6-2 of the Draft EIR:

> Recycled water is used for agricultural irrigation applications throughout California. Beginning with the first use of recycled water for landscape irrigation about 100 years ago, agencies across California have continued to innovate and improve the process to treat and beneficially reuse their wastewater (WateReuse 2019).[2] The SWRCB establishes general policies governing the permitting of recycled water projects, develops uniform water recycling criteria appropriate to particular uses of water, reviews and approves Title 22 engineering reports for recycled water use, and allocates and disperses funding for recycled water projects consistent with its roles of protecting water quality, public health, and sustaining water supplies. When used in compliance with the Water Quality Control Policy for Recycled Water (Recycled Water Policy), Title 22, and other applicable state and federal water quality laws, the SWRCB "finds that recycled water is safe for approved uses, and strongly supports recycled water as a safe alternative to fresh water or potable water for such approved uses" (SWRCB 2018).[3]

Public health impacts related to the proposed use of recycled water for outdoor irrigation are discussed in detail on pages 4.6-6 and 4.6-7 of the Draft EIR. Public health impacts related to the proposed seepage pits are discussed on page 4.6-7 of the Draft EIR.

As discussed on page 4.6-7, regulatory standards for recycled water use are designed to be protective of human and environmental health. When used in compliance with the Recycled Water Policy, the Uniform Statewide Recycling Criteria, and applicable water quality laws, the SWRCB finds that recycled water is safe for approved uses, including agricultural irrigation. Compliance with applicable regulations would protect public health. Therefore, impacts related to the proposed project's use of recycled water for agricultural irrigation would be less than significant.

As noted on page 4.6-7 of the Draft EIR:

> The seepage pits would be located entirely underground and, therefore, would not provide a vector-related public health hazard (e.g., mosquito breeding habitat).
>
> Seepage pits are typically used for septic tank systems, which provide basic treatment for domestic wastewater flows. The project's CWWTF would provide a higher level of treatment than is typically offered by septic systems before discharging treated effluent to the seepage pits in the dispersal field. The CWWTF design, including seepage pit design, would be subject to review and approval from the County of Ventura Environmental Health Division and the CWWTF would be constructed in conformance with applicable building codes and construction practices. The Ventura County Building Code (2019) identifies minimum setbacks between seepage pits and buildings, property lines, surface waters, domestic water wells and pipelines, and property lines. The Code also contains seepage pit sizing requirements and requirements pertaining to rock and sand fill.
>
> Public health impacts related to seepage pits would be less than significant.

As such, public health impacts related to recycled water use and seepage pits are addressed in the Draft EIR.

[2] Reference cited in Draft EIR, not in this Responses to Comments document.
[3] Ibid

Response 1.9

The commenter states that the southern access road shared by the City's North Pleasant Valley Groundwater Desalter will require additional improvements, including a bicycle/pedestrian pathway, in order to accommodate the proposed project. The commenter states that the City will not be responsible for these improvements and that the access road needs to be available for operation of the Desalter.

As stated on page 2-11 of the Draft EIR: "The southern driveway would include a bicycle/pedestrian pathway." The County acknowledges the applicant would be responsible for constructing the bicycle/pedestrian pathway as part of the proposed project. The project applicant would coordinate with the City of Camarillo to maintain access to the City's Desalter throughout the construction period.

Response 1.10

The commenter requests clarification on a label in Draft EIR Section 2.5.1.2 and Figure 2-3b titled "Road to be built by others."

The text on page 2-11 of the Final EIR has been revised to clarify the improvements to the southern access road:

> The housing complex would be accessible from two driveways from Somis Road. The southern driveway would be located within an existing 40-foot-wide easement ~~over a road built by others~~ that provides access to the City's Desalter Facility site. A portion of this road would be built by the City of Camarillo for access to the City's Desalter Facility site. The proposed project would include additional improvements to the road. The southern driveway would include a bicycle/pedestrian pathway. The eastern driveway would follow a proposed 50-foot-wide easement north of the existing Bell Ranch residences and agricultural buildings and would provide access to the housing complex from the east. The eastern driveway would be constructed as part of the proposed project and would include an off-site portion of the driveway to connect the housing complex to Somis Road.

As described therein, the City of Camarillo would design and construct a portion of the southern access road. The project applicant would be responsible for additional improvements to connect the road to the project site.

Response 1.11

The commenter states that construction activities associated with the City's North Pleasant Valley Groundwater Desalter will be occurring through December 2021 and that construction staging will occupy the southern portion of the project site. The commenter notes this could interfere with the proposed project's Phase 1 construction, which is scheduled to commence in August 2021.

Please see Response 1.7.

Response 1.12

In reference to the Draft EIR Appendix H, Traffic Study, the commenter states there is a repeated typographical error in which "Las Posas Valley" is incorrectly referred to as "Fas Posas Valley" and requests a correction.

The perceived typographical errors were due to the inadvertently incorrect printing (and PDFing) of the Traffic Study. Such issues have been resolved in the Traffic Study (see Appendix H).

Response 1.13

In reference to Figure 5 on page 14 of the Draft EIR Appendix H, Traffic Study, the commenter states the project trip distribution does not equal 100 percent. The commenter also states there are strange symbols on this figure that should be corrected.

The perceived errors in Figure 5 of the Traffic Study were due to the inadvertently incorrect printing (and PDFing). Such issues have been resolved in the Traffic Study (see Appendix H).

Response 1.14

The commenter references page 26 of the Draft EIR Appendix H, Traffic Study, which describes two shared access connections to Somis Road. The commenter states only the southern access connection to Somis Road would be shared between the City's Desalter and the proposed project.

The Traffic Study has been revised to state a shared access agreement has been established which allows the proposed project to utilize the City's Desalter access road, which would be used as the southern access to the project site.

Response 1.15

The commenter references page 31 of the Draft EIR Appendix H, Traffic Study, which describes safe routes to school. The commenter states that Rancho Campana High School is an academy school and limits enrollment. The commenter asks whether there have been discussions with the Oxnard Union High School District regarding this project.

The County and the project applicant have participated in discussions with the Oxnard Union High School District regarding the proposed project. The applicant would be responsible for payment of school impact fees as required under Senate Bill (SB) 50, which would provide funding for an increase in school capacity if needed to accommodate the proposed project. According to Section 65996 of the California Government Code, school development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation." As noted on page 31 of the Draft EIR Appendix H, Traffic Study, Rancho Campana High School is located within walking distance of the project site. The proposed project "would provide cross-access to the high school via a gated access connection to the school parking lot. This would allow students to walk directly to the high school without having to access major streets."

Response 1.16

The commenter states that there are "strange" symbols and confusing formatting throughout the Draft EIR Appendix H, Traffic Study.

The strange symbols and formatting were due to the inadvertently incorrect printing (and PDFing) of the Traffic Study. Such issues have been resolved in the Traffic Study (see Appendix H).

Response 1.17

The commenter references the last paragraph on page 4.7-10 of the Draft EIR, which describes direct access to the project site as being provided via two shared access connections to Somis Road with the North Pleasant Valley Groundwater Desalter Facility. The commenter clarifies that the City

of Camarillo will only be constructing a portion of the southern access road connection to Somis Road. The commenter states additional improvements to the access road, including a bicycle and pedestrian pathway, will be required to accommodate the proposed project.

Please see Responses 1.9 and 1.10. As noted therein, the County assumes the City of Camarillo will only be constructing a portion of the southern access road connection to Somis Road. Additional improvements to the access road to accommodate the proposed project, including a bicycle and pedestrian pathway, will be the responsibility of the project applicant.

The following text on page 4.7-10 of the Draft EIR has been revised to clarify the project applicant's construction responsibilities in relation to the access roads:

> Regional access to the project is provided by U.S. Highway 101 and State Route 118. Direct access to the project would be provided via two ~~shared~~ access connections to Somis Road (State Route 34). The southern entrance would be shared with the North Pleasant Valley Groundwater Desalter Facility. The City of Camarillo will construct a ~~new access connection to Somis Road and improve an existing connection to Somis Road~~ portion of the southern access road as part of the North Pleasant Valley Groundwater Desalter Facility, approximately 700 feet southwest of where the eastern driveway would intersect with Somis Road at a T-intersection. A shared access agreement allowing the project to utilize the two driveway connections has been established. The segment of Somis Road adjacent to the site access is relatively straight and level, providing good sight distance. The City of Camarillo and the project applicant will be required to construct the access connections to Somis Road to County of Ventura and Caltrans design standards. The two access connections to Somis Road will be designed to meet the County Fire Department design standards to provide emergency vehicles access.

Response 1.18

The commenter references a typographical error on page 4.8-1 of the Draft EIR in which "Wastewater" is spelled "Wafstewater" and requests a revision.

The typographical error has been corrected in the Final EIR.

Response 1.19

In reference to the first paragraph on page 4.8-3 of the Draft EIR, the commenter requests that the text be revised to delete the reference to the Camarillo Sanitary District on-site.

The reference to the Camarillo Sanitary District on-site wastewater treatment is a typographical error. This text should instead refer to the CWWTF. For clarification, the text on page 4.8-3 of the Final EIR is revised as follows:

> The project site is located more than 200 feet from the closest existing Camarillo Sanitary District facilities and is outside both the Camarillo city limits and the Camarillo Sanitary District limits. For these reasons, the ~~Camarillo Sanitary District on-site wastewater treatment~~ on-site CWWTF would be required for the proposed housing complex.

Response 1.20

In reference to the second paragraph on page 4.8-3 of the Draft EIR, the commenter requests that the text be revised to refer to the "Camarillo Sanitary District sewer system" instead of the "City of Camarillo sewer system."

As requested, the text on page 4.8-3 of the Final EIR has been revised as follows:

> The CWWTF would not discharge effluent or solid waste into either the County or ~~City of Camarillo~~ Camarillo Sanitary District sewer systems.

Response 1.21

In reference to the third paragraph on page 4.8-3 of the Draft EIR, the commenter requests that the text be revised to include information on potential groundwater quality impacts related to the proposed project's seepage pits. The commenter states that groundwater quality could be impacted by recycled water not meeting regulatory standards.

The proposed project's CWWTF would comply with applicable regulatory standards governing effluent water quality, which would protect both surface water quality and groundwater quality. As discussed on page 4.9-12 of the Draft EIR, the CWWTF would be designed to treat wastewater generated on-site to meet Disinfected Tertiary Recycled Water requirements in accordance with California Code of Regulations (CCR) Title 22. Title 22 contains the highest water treatment standards for wastewater effluent. Excess recycled water and treated wastewater effluent not meeting Title 22 standards would be dispersed through a series of underground seepage pits, and would also be subject to Los Angeles RWCQB testing and regulation.

The Los Angeles Regional Water Quality Control Board (RWQCB) Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) establishes water quality objectives (WQOs) for both surface water and groundwater bodies within its jurisdiction. As described on page 4.9-4 of the Draft EIR:

> If a water body is designated as "impaired," then a Total Maximum Daily Load (TMDL) is developed and identified for the affected water body. A TMDL establishes the maximum daily amount of a pollutant allowed in an identified water body and is used as a planning tool in addressing water quality impairments and improving water quality.

As described on pages 4.9-12 to -13 in Section 4.9, *Surface Water Quality*, of the Draft EIR:

> As required by CCR Titles 17 and 22, the Health and Safety Code and Water Code, the proposed CWWTF would require an Engineering Report (i.e., a Title 22 Report) for "Production, Distribution and Use of Recycled Water" to the [State Water Resources Control Board] for review and approval. The County's Building and Safety Division also has approval authority over the CWWTF and the Los Angeles RWQCB would regulate the operation of the facility. As required by water discharge requirements and water reclamation requirements, constituents (pollutants) in the recycled water would be tested daily, weekly, and/or monthly to ensure the discharge is meeting the TMDLs for pollutants established under the [Clean Water Act] to protect the beneficial uses of receiving waters.

The text on page 4.11-15 of the Final EIR has been revised to include a discussion of potential groundwater quality impacts related to the proposed project's seepage pits:

- **Hydrology/Water Quality.** According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06111C0932F, the project site is not located within a Special Flood Hazard Area (a 100-year floodplain) (FEMA 2015) and the proposed housing complex would be located outside the 500-year floodplain.

> As discussed in Section 4.9, *Water Resources – Surface Water Quality*, of this EIR, compliance with the NPDES *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (*Construction General Permit*) (Order 2009-0009, as amended by Orders 2010-0014-DWQ and 2012-006-DWQ) Best Management Practices (BMPs) for stormwater control and/or a project-specific stormwater pollution prevention plan (SWPPP) would control and minimize erosion and siltation during project construction. Additionally, operation of the project would not directly or indirectly cause stormwater quality to exceed water quality objectives or standards in the applicable Ventura County Municipal Separate Storm Sewer System (MS4) Permit. Impacts due to potential erosion/siltation hazard and flooding hazard would be less than significant.
>
> As also discussed in Section 4.9, *Water Resources – Surface Water Quality*, the Los Angeles RWQCB would regulate operation of the CWWTF. The CWWTF would be designed to treat wastewater generated on-site to meet Disinfected Tertiary Recycled Water requirements in accordance with California Code of Regulations (CCR) Title 22. Title 22 contains the highest water treatment standards for wastewater effluent. Recycled water produced by the proposed CWWTF is anticipated to be of higher quality than the current groundwater. Excess recycled water and treated wastewater effluent not meeting Title 22 standards would be dispersed through a series of underground seepage pits and would also be subject to Los Angeles RWCQB testing and regulation. As required by water discharge requirements and water reclamation requirements, pollutants in the recycled water would be tested daily, weekly, and/or monthly to ensure the discharge is meeting the TMDLs for pollutants established under the CWA to protect the beneficial uses of receiving waters, including the underlying groundwater basin. As such, recycled water applied as irrigation water and excess treated water directed to seepage pits would be subject to Los Angeles RWQCB regulation. With regulatory compliance, potential impacts to groundwater quality would be less than significant.

As requested, the third paragraph on page 4.8-3 of the Final EIR has been revised to reference the groundwater quality discussion as follows:

> Recycled water would be applied as irrigation water on adjacent agricultural lands. Excess treated wastewater effluent would be dispersed via underground seepage pits. Potential surface water quality impacts related to the proposed project's recycled water and seepage pits are analyzed in Section 4.10, *Water Resources – Surface Water Quality*. Potential groundwater quality impacts are discussed in Section 4.11, *Less Than Significant Environmental Effects*.

The change to the Draft EIR is not "significant new information" because it does not identify a new avoidable significant effect, show a substantial increase in the severity of an environmental impact, identify a feasible project alternative or mitigation measure considerably different from others previously analyzed, or involve a change to mitigation measures that were proposed in the Draft EIR. In addition, the proposed revision is a minor change to the EIR that merely clarifies, amplifies, or makes insignificant modifications to the document.

Response 1.22

The commenter states again that the Draft EIR should analyze potential groundwater quality impacts related to recycled water and seepage pits.

Please see Response 1.21.

Response 1.23

In reference to Section 4.9, *Water Resources – Surface Water Quality*, of the Draft EIR, the commenter suggests the addition of information about Ventura County's LAMP regulatory program for septic systems.

This comment is interpreted to refer to the Ventura County Environmental Health Division Local Agency Management Program (LAMP) for Onsite Wastewater Treatment Systems (OWTS). The Environmental Health Division and its regulations, including the LAMP's OWTS Technical Manual, are addressed in Section 4.6, *Public Health*, of the Draft EIR. As noted on page 4.6-6 of the Draft EIR, the proposed CWWTF would be subject to existing and future federal, state, and local health and safety requirements for the handling, storage, transportation, and disposal of hazardous materials, including requirements found in the Ventura County OWTS Technical Manual and Ventura County Building Code. No change to the Draft EIR is warranted in response to this comment.

Response 1.24

The commenter suggests that the discussion of water quality impairments in Calleguas Creek listed on page 4.9-3 of the Draft EIR needs to be revised to add trash, toxicity, and salts (chloride, TDS). The commenter states Table 4.9-1 in the Draft EIR includes a complete listing of water quality impairments.

The water quality impairments listed on page 4.9-3 of the Final EIR has been revised as follows:

> Water quality impairments in the Calleguas Creek and its tributaries include ammonia, boron, copper, bacteria, nitrogen, nitrate, selenium, <u>trash, toxicity, salts,</u> and sulfate, as well as insecticides and pesticides such as dichloro-diphenyl-trichloroethane (DDT), dieldrin, and toxaphene.

Pleasant Valley Recreation & Park District

1605 E. Burnley St., Camarillo, CA 93010
Phone: (805) 482-1996 Fax: (805) 482-3468 www.pvrpd.org

Letter 2

November 5, 2020

Justin Bertoline
County of Ventura
Case Number PL19-0046
Somis Ranch Farmworker Housing Project

After reviewing the initial information for the notice of preparation of the EIR and notice of public scoping meeting the District requested there be more detailed analysis as it related to Parks and Recreation spaces and programming. While I understand Ventura County parks are funded and operated with revenues received from users' fees, Pleasant Valley Recreation and Park District has a different structure. Our parks are funded primarily through property tax, an assessment fee, and program fees. The families residing in this complex will be unlikely to use any Ventura County park resources due to their proximity to PVRPD classes and facilities.

The three nearest County of Ventura parks are the following: Santa Rosa Valley Park (5.1 miles from the planned development), Steckel Park (25.1 miles); and Soul Park (31 miles.) Of these three parks, Soul Park is the only park with features developed beyond open space and campgrounds, with playgrounds, sports fields, and tennis courts, etc. Conversely, there are nine District Parks within a 2.5-mile radius of the Somis Farmworker Development which include amenities such as: playgrounds, soccer fields, baseball/softball fields, an aquatics center, tennis/pickleball courts, and basketball courts, among other features.

Additionally, this development is sited adjacent to one of the District's most heavily impacted acreage per capita areas. If the District's boundaries were less than a mile further extended from their current line, this development would be included in the District and would support/use District facilities without question. Simply put, this development will not only impact PVRPD resources, but disproportionately so, due to its proximity to already heavily impacted District facilities and due to the population (1,112 individuals) it is expected to house.

The City of Camarillo General Plan, which the District strives to support, specifically states under Section 8 of the Recreation element recommends that for each 1,000 persons, a total of 2 ½ acres of neighborhood parks and 2 ½ acres of community parks should be required for a combined total of 5 acres of parkland per 1,000 residents. Accordingly, the District should have 349 acres of parkland to meet this requirement. Currently, the District operates 256 acres of parkland to serve over 70,000 residents. This means that prior to this development's construction, there is already a

deficit of 93 acres. This would be further exacerbated as this development will most definitely be served by the District's parks, yet not included in any official count of the District residents.

While the District would typically review options such as Quimby Fees or the dedication of parkland to mitigate the impact of this project, those are not currently available as the project site is outside District boundaries. Additionally, the County itself may not be able to rely on the Quimby Act for its own mitigation purposes, as this project is classified as low-income, which allows for the waiver of Quimby fees. Therefore, it seems that the only reasonable mitigating mechanism that would adequately provide for the project's future residents and relieve the County of the burden providing adequate recreation resources, would be the annexation of this project into the Pleasant Valley Recreation and Park District. As part of the Public Resources Code, Chapter 4, Recreation and Park Districts **(§5780 through 5791.7.)** declares that the provision of recreation, park, and open-space facilities and services are essential services. A key provision of this particular code provides territory, whether incorporated or unincorporated, whether contiguous or noncontiguous, may be included in a district. With that said, the residents of this development would support the parks, facilities, and programs of which they will be using through property taxes. This would be a long-term solution that would support the resources this community will use over the lifetime of the development.

I would once again ask that parks and recreational space be specifically addressed as part of the Draft Environmental Impact Report, so it does not put undue stress on the Pleasant Valley Recreation and Park District's current strained park system.

I would be happy to have further conversation to discuss District concerns.

Cordially,

Mary Otten
General Manager
Pleasant Valley Recreation and Park District

Letter 2

COMMENTER: Mary Otten, General Manager, Pleasant Valley Recreation and Park District

DATE: November 5, 2020

The commenter states concern about the proposed project's impacts to Pleasant Valley Recreation and Park District (PVRPD) facilities. According to the commenter, PVRPD parks are funded primarily through property tax, an assessment fee, and program fees, and there is no current mechanism for collecting fees from the proposed project because it is not located within the PVRPD. Although the project site is not located within the PVRPD, the commenter notes there are nine PVRPD parks within a 2.5-mile radius of the project site, offering amenities such as playgrounds, soccer fields, baseball/softball fields, an aquatics center, and basketball courts. The commenter states that the PVRPD is not currently meeting the City of Camarillo's recommended parkland-to-residents ratio and expresses concern that the project's residents would exacerbate this deficit by utilizing heavily impacted PVRPD facilities. The commenter suggests annexation of the project site into the PVRPD, which would allow PVRPD to collect property taxes from the proposed project. The commenter also requests that parks and recreational space be specifically addressed in the Final EIR.

As noted on page 4.11-16 of the Draft EIR:

> The proposed housing complex would increase demand for parklands and recreation centers. However, the project would not directly affect any existing parks and would include on-site recreational facilities such as community center rooms, playgrounds/tot lots, play fields, a community garden, outdoor courtyards, and a basketball court. These on-site amenities would offset project demand on recreational facilities in the region. In addition, the project applicant would be required to pay fees in accordance with the Quimby Act (Government Code Section 66477). Therefore, impacts to recreational facilities would be less than significant.

As noted in the Draft EIR, the project applicant may be required to pay fees to Ventura County in accordance with the Quimby Act. Fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds to serve Ventura County residents.

In addition to Quimby fees, school impact fees would be paid by the proposed project to the Oxnard Union High School District and Somis Union School District. The fees would contribute to the construction of a new Somis School park near the project site, which would be accessible to residents of the proposed project. On-site residents would be more likely to utilize this park and on-site facilities (including community center rooms, playgrounds/tot lots, play fields, a community garden, outdoor courtyards, and a basketball court) than more distant PVRPD facilities. As such, annexation of the project site into the PVRPD would not be required.

Letter 3

Somis Union School District
5268 North Street
Somis, CA 93066

November 4, 2020

Justin Bertoline, Senior Planner
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Dear Mr. Bertoline,

I am writing this letter on behalf of the Somis Union School District. Thank you for meeting with us on October 27, 2020 to discuss the proposed Somis Ranch Farmworker Housing Community. As I expressed at our meeting, we have concerns about our capacity to house students that are projected to form part of the housing community. This is consistent with the general public concerns voiced during the EIR scoping process. Somis School has the capacity to house approx. 100 additional students; this falls well short of the estimated 300 students projected after the anticipated completion of phase three of the Somis Ranch Farmworker Housing Community. Room preparation will also include purchasing new furniture and technology equipment, as well as reconfigure the rooms in accordance with the ages of the students coming in. As important, what are the ingress and egress points for our buses when picking up and dropping off our students? 3.1 3.2

Thank you in advance for addressing our concerns.

Dr. Jesus Vaca
Superintendent/Principal

P: 805-386-8258 F:805-386-2324 W:www.somisusd.org

Letter 3

COMMENTER: Jesus Vaca, Superintendent/Principal, Somis Union School District

DATE: November 4, 2020

Response 3.1

The commenter thanks County staff for meeting with them in October 2020 to discuss the proposed project. The commenter states concern about the Somis Union School District's capacity to accommodate the estimated new 300 students projected at full buildout of the proposed project. According to the commenter, Somis School currently has capacity to accommodate approximately 100 additional students. The commenter states that Somis School will need to reconfigure rooms in accordance with the ages of new students and purchase new furniture and technology equipment.

The project applicant would be responsible for the payment of school impact fees to the Somis Union School District under SB 50. According to Section 65996 of the California Government Code, school development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation." In addition, the proposed project would be implemented in three phases with the first phase (100 units) built out in mid 2021. Buildout of the two remaining phases would be dependent upon occupation of the previous phase and securement of funding sources, the timeframe of which is currently unknown. The Somis Union School District's current capacity to accept 100 additional students is anticipated to accommodate the first phase of buildout. In accordance with the Government Code, the proposed project's school impact fees would fund the applicant's share toward necessary facility improvements to accommodate future phases of buildout.

Response 3.2

The commenter asks where the school bus ingress and egress points would be located.

In response to this comment, Figure 2-3b, *Housing Complex Site Plan*, has been revised in the Final EIR to show a school bus turnout at the project site. The school bus turnout would be located near the southern vehicle access point to the housing complex.

Letter 4

Ventura County
Air Pollution
Control District

669 County Square Dr
Ventura, California 93003

tel 805/645-1400
fax 805/645-1444
www.vcapcd.org

Dr. Laki Tisopulos, P.E.
Air Pollution Control Officer

VENTURA COUNTY
AIR POLLUTION CONTROL DISTRICT
Memorandum

TO: Justin Bertoline, County RMA Planning Division

DATE: November 05, 2020

FROM: Nicole Collazo, Air Quality Specialist, APCD Planning Division

SUBJECT: Public Comment Letter on DEIR for Somis Ranch Farmworker Housing Project PL19-0046

Air Pollution Control District (APCD) staff has reviewed the subject draft environmental impact report (EIR), which will identify any potential environmental impacts for the construction and operation of the facility mentioned above. The Lead Agency for the project is the County of Ventura. APCD would like to submit the following comments regarding the air quality and greenhouse gas environmental impact sections.

GENERAL COMMENTS

Air Quality Section

1) Page 4.1-5. Table 4.1-2 is labelled as the ambient air quality data from the Mira Loma Van Buren Monitoring Station located in Riverside County. Please either relabel the table if the data presented corresponds to the Rio Mesa Monitoring Station in Oxnard, CA or present the correct data for said monitoring station. 4.1

2) Page 4.1-11 and Page 4.11-17. The methodology applied in the carbon monoxide (CO) analysis for determining localized air quality impacts is no longer recommended by the APCD. Chapter 6 of the 2003 Air Quality Assessment Guidelines (AQAG) contains methodology for determining if a project would create or contribute to an existing CO hotspot (AQAG, Pg. 6-3). A CO hotspot is considered a location where ambient CO concentrations exceed the state ambient air quality standards (AQAG, Pg. 2-11). Ventura County has been in attainment of the CO ambient air quality standard since 2004, and CO monitoring is no longer needed or being conducted. It is expected that, with over 80% of the CO in urban areas emitted by motor vehicles, and with stricter, cleaner emission standards to the state mobile fleet, CO ambient concentrations should remain at or lower than the most recent CO monitoring data available for Ventura County. 4.2

3) Page 4.1-12. The operational parameters used in the CalEEMod air emissions model are listen under the Operational Emissions section. We'd like to note that the project is not proposing to use any natural gas utilities and consequently no emissions should be estimated from energy sources of the site. It appears the CalEEMod model reports located in Appendix C for both air quality and greenhouse gas emission sections include natural gas-related emissions. The project description indicating no natural gas utilities would be provided is located in Page 2-11 of the draft EIR (Section 2.5.1.3). 4.3

4) Page 4.1-13 and 4.1-15. It is not clear whether the CalEEMod air emission models for both air quality and greenhouse gasses entered the APCD's max ROC coating allowable for general flat coatings of 100 g/L into the architectural coatings category for both Construction and Operational-Area Sources. The model reports should indicate in either the comments section or the input parameters changed box at the beginning of the reports but could not be found. This may result in an overestimation of ROC emissions reported (75 lbs./day ROC for construction, 7 lbs./day ROC operational). 4.4

5) Page 4.1-18. Thank you for providing more information regarding the proposed on-site wastewater treatment facility (WWTF) and plans to reduce odor emissions, as was requested in our letter during the Notice of Preparation public comment period. Not only are WWTFs a known odor potential concern as indicated in our Air Quality Assessment Guidelines (AQAG) for siting near sensitive receptors within 1 mile (such as the public school and residents living on-site), but the APCD has experienced a larger volume of odor complaints from WWTFs in Ventura County that are located near residential neighborhoods. APCD permits WWTFs for their odor control equipment and related processes (such as the biosolids storage tanks) to prevent violations of APCD Rules 51, Nuisance, Rule 26, New Source Review, and Rule 54, Sulfur Compounds. It is imperative that the project applicant check in with the APCD's Engineering Division for a screening to determine if the on-site WWTF will require an air permit (as will the diesel-powered 200 kW emergency generator). An Authority to Construct permit, if applicable, must be approved *prior* to installation and construction of equipment needing an APCD Permit to Operate. The Engineering Division may be contacted at 805-645-1401 or contact Ms. Laura Kranzler, Permit Processing Specialist, at laura@vcapcd.org. It is further recommended this be a standard condition of approval for the facility's discretionary permit, if applicable. 4.5

Greenhouse Gas Emissions Section

6) The APCD applauds the project's intentions to reduce greenhouse gas emissions by encouraging alternative modes of transportation and providing on-site electric vehicle charging stations. We would like to make the applicant aware of our Electric Vehicle Charging Station Incentive Program in which grant monies are awarded for the 4.6

construction and installation of EV charging stations so long as they are made available to the public. More information on this program can be found here.

7) Page 4.11-15. It is not clear whether the CalEEMod air emission models for both air quality and greenhouse gasses entered the APCD's max ROC coating allowable for general flat coatings of 100 g/L into the architectural coatings category for both Construction and Operational-Area Sources. The model reports should indicate in either the comments section or the input parameters changed box at the beginning of the reports but could not be found. This may result in an overestimation of ROC emissions reported (75 lbs./day ROC for construction, 7 lbs./day ROC operational). 4.7

Thank you for the opportunity to comment on the project draft EIR. If you have any questions, you may reach me at nicole@vcapcd.org.

Letter 4

COMMENTER: Nicole Collazo, Ventura County Air Pollution Control District (VCAPCD)

DATE: November 5, 2020

Response 4.1

The commenter states that Table 4.1-2 in the Draft EIR is labeled as containing ambient air quality data from the Mira Loma Van Buren Monitoring Station located in Riverside County. The commenter requests that the table be relabeled to the Rio Mesa Monitoring Station in Oxnard and correct the data if needed.

Table 4.1-2 in the Draft EIR is incorrectly titled as the Mira Loma Van Buren Monitoring Station, but the data in the table corresponds to the Rio Mesa Monitoring Station in Oxnard. The table title on page 4.1-5 has been revised in the Final EIR as follows:

> **Table 4.1-1 Ambient Air Quality at the ~~Mira Loma Van Buren~~ Rio Mesa Monitoring Station**

Response 4.2

The commenter states the methodology applied in the carbon monoxide (CO) analysis in the Draft EIR is no longer recommended, as Ventura County has been in attainment of the carbon monoxide ambient air quality standard since 2004.

It is noted that the VCAPCD no longer recommends conducting a CO hotspot analysis due to County-wide CO ambient air quality standard attainment. The Draft EIR conservatively includes a CO hotspot analysis and concludes project impacts would be less than significant. As noted on page 4.1-17 in the Draft EIR, "the project would not generate substantial traffic volumes that would cause or contribute to a CO hotspot or expose sensitive receptors to substantial pollutant concentrations related to CO hotspots. Impacts would be less than significant." As noted in this comment, CO impacts would be further reduced with increasing emissions standards to the state mobile fleet.

Response 4.3

The commenter states that the project applicant does not propose to use any natural gas utilities, yet Draft EIR Appendix C, Air Quality and Greenhouse Gas Modeling Results, includes estimates from natural gas-related emissions.

The commenter is correct; the project applicant does not propose to use natural gas. CalEEMod default factors include the use of natural gas, which provides a conservative analysis in this case as it results in an overestimation of criteria pollutant emissions. As stated in the discussion of Impact AQ-1, "[a]ir pollutant emissions impacts associated with project construction would be less than significant."

Response 4.4

The commenter states that it is unclear whether the CalEEMod air emissions models in the Draft EIR Appendix C, Air Quality and Greenhouse Gas Modeling Results, account for the VCAPCD's maximum allowable reactive organic compound (ROC) content in architectural coatings, which may account for an overestimation of emissions.

The CalEEMod air emission model relies on default ROC concentrations in architectural coatings, which may account for an overestimation of ROC emissions. However, this analysis is conservative. An overestimation of ROC emissions due to architectural coating content limit assumptions would not change the air quality significance determination in the Draft EIR. As noted on page 4.1-13 of the Draft EIR, construction-related air quality impacts would be less than significant. Mitigation Measure AQ-1 would still be recommended to reduce construction emissions per VCAPCD recommendations.

Response 4.5

The commenter states wastewater treatment facilities are a known odor potential concern in Ventura County, and thanks the County for providing more information as was requested in their letter during the Notice of Preparation comment period. The commenter states that the project applicant should contact APCD regarding whether the on-site facility would require an air permit. The commenter recommends including this as a standard condition of approval for the project's discretionary permit.

The commenter's recommendation is noted. Air permits have been added to Table 2-3, Required Approvals, in the Final EIR on page 2-20.

Response 4.6

The commenter states approval of the project's intention to reduce GHG emissions by encouraging alternative modes of transport and on-site EV charging and offers additional information regarding grant funding for this.

The commenter's support for on-site EV charging and availability of grant funding is noted.

Response 4.7

The commenter states the same comment presented in Response 4.4 and cites a different page number.

Please refer to Response 4.4.

DEPARTMENT OF TRANSPORTATION
DISTRICT 7 – Office of Regional Planning
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-0475
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Letter 5

Making Conservation a California Way of Life.

November 4, 2020

Justin Bertoline
Ventura County Planning Division
800 South Victoria Avenue
Ventura, CA 93009

RE: Somis Ranch Farmworker Housing Complex
–Draft Environmental Impact Report (DEIR)
SCH # 2020049020
GTS # 07-VEN-2020-00422
Vic. VEN-34/PM: 16.06

Dear Justin Bertoline:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced DEIR. The proposed project would construct a 100% affordable multi-family housing complex for farmworkers on three proposed parcels totaling 18.43 acres and continue agricultural use on a 17.93-acre parcel. The proposed housing complex would include 360 dwelling units, 654 parking spaces, 379 bicycle parking spaces, and a community wastewater treatment facility that would serve the housing complex as well as produce recycled water for irrigating the adjacent agricultural fields. The project will also benefit from the City of Camarillo improving an existing driveway to State Route 34 (SR-34) and creating a new driveway to SR-34 as part of the North Pleasant Valley Groundwater Treatment Facility and De-Salter Project. The Project has a shared access agreement with the City of Camarillo to utilize the new access connections to Somis Road that will serve the groundwater treatment facility. The southern access connection will include a bicycle/pedestrian pathway. The Ventura County Planning Division is considered the Lead Agency under the California Environmental Quality Act (CEQA).

The project is adjacent to SR-34 (also known as Somis Road), approximately 1.5 miles away from the SR-34 and State Route 118 (SR-118) intersection, and approximately 2.5 miles away from the SR-34 and United States 101 (US-101) interchange. From reviewing the DEIR, Caltrans has the following comments:

- The County has provided both a Vehicle Miles Traveled (VMT) analysis and Level of Service analysis for this project. Since the implementation deadline for Senate Bill (SB) 743 (2013) has passed, Caltrans has reviewed this project from a VMT perspective. As discussed in the DEIR, SB 743 mandates that VMT be used as the primary metric in identifying transportation impacts of all future development projects under CEQA, starting July 1, 2020.
- The DEIR states "The County is in the process of adopting formal thresholds of significance under SB 743." Caltrans strongly recommends that the County adopt thresholds and methodologies for analyzing VMT and identifying mitigations that are consistent with the recommendations in the 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA* by the California Governor's Office of Planning and Research (OPR). 5.1
- In the meantime, the County has conducted a qualitative VMT analysis based on recommendations in OPR's Technical Advisory. This advisory states that a presumption of less than significant (LTS) impact can be made for 100 percent affordable residential developments in infill locations. 5.2

- The DEIR states that while this project is not in an infill location, it can still be presumed to have a LTS impact because it is a 100% affordable housing project and it is in an agricultural area near where site residents would likely work, which would decrease VMT. Caltrans agrees with this assessment. 5.2
- Caltrans also concurs with the results of the signal warrant analysis conducted for the Somis Road/Northern Project Access intersection and the Somis Road/Southern Project Access intersection, which states that signals are not warranted at these intersections. 5.3

The following information is included for your consideration. The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Furthermore, Caltrans encourages Lead Agencies to implement Transportation Demand Management (TDM) strategies that reduce VMT and Greenhouse Gas (GHG) emissions. Thus, Caltrans supports the TDM strategies this project has incorporated, such as providing 379 bicycle parking spaces. Additional TDM options that could be incorporated into this project to further reduce VMT include:

- Ensure that pedestrian and bicyclist connections to the school located near the project are maintained during construction. 5.4
- Decrease the amount of vehicle parking provided.
- Coordinate with Camarillo Area Transit to explore rerouting its bus route onto SR-34 to serve the complex.
- Provide free or reduced-cost transit subsidies to project residents.
- Create secure, indoor bicycle storage facilities within walking distance of housing units.
- Offer bicycle safety and basic repair education to residents.

Also, any transportation of heavy construction equipment or materials that requires use of oversized-transport vehicles on State highways will need a Caltrans transportation permit. If construction traffic is expected to cause delays on any State facilities, please submit a Construction Traffic Management Plan detailing these delays for Caltrans' review. Caltrans also recommends that the project limit construction truck traffic to off-peak periods to minimize the potential impact on State facilities. 5.5

Finally, encroachment permits are required for any project on or near Caltrans right-of-way. The proposals to create a new driveway off of SR-34, improve an existing driveway off of SR-34, and create new turning lanes on SR-34 will likely require encroachment permits. However, this decision will be subject to additional review by the Office of Permits. Furthermore, projects on or near Caltrans right-of-way should conform with Caltrans' design standards. Thus, Caltrans supports the following statement: "The City of Camarillo will be required to construct the access connections to Somis Road to County of Ventura and Caltrans design standards." The Office of Permits might request detailed driveway designs, including the design of the pedestrian and bicycle pathway included in the southern access connection. 5.6

If you have any questions about these comments, please contact Emily Gibson, the project coordinator, at Emily.Gibson@dot.ca.gov, and refer to GTS# 07-VEN-2020-00422.

Sincerely,

Miya Edmonson

MIYA EDMONSON
IGR/CEQA Branch Chief
cc: Scott Morgan, State Clearinghouse

Letter 5

COMMENTER: Miya Edmonson, IGR/CEQA Branch Chief, California Department of Transportation

DATE: November 4, 2020

Response 5.1

The commenter recommends that the County adopt thresholds of significance and methodologies for analyzing vehicle miles traveled (VMT) and identifying mitigation consistent with the California Governor's Office of Planning and Research (OPR). Specifically, the County should reference recommendations in the 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA.*

This comment is noted. As stated on page 4.7-7 of the Draft EIR:

> The County is in the process of adopting formal thresholds of significance under SB 743. In lieu of formally adopted thresholds of significance, VMT thresholds consistent with OPR's final technical guidance for the analysis of transportation impacts under CEQA were applied in the analysis presented in this EIR.

Response 5.2

The commenter agrees with the assessment made within the Draft EIR stating the project would have a less than significant (LTS) impact related to VMT.

The commenter's agreement with the VMT significance conclusion is noted.

Response 5.3

The commenter agrees that signals are not warranted at the Somis Road/Northern Project Access intersection, nor the Somis Road/Southern Project Access Intersection.

The commenter's agreement with the signal warrant analysis is noted.

Response 5.4

The commenter states support for Transportation Demand Management (TDM) strategies incorporated by the project. The commenter also provides specific recommendations that would further reduce VMT.

The commenter's support of the project's TDM strategies is noted. Some of the commenter's additional TDM strategy recommendations, such as decreasing the amount of vehicle parking offered at the project site, are not feasible to incorporate into the proposed project. Project construction is not anticipated to block pedestrian or bicycle connections to Rancho Campana High School. Although the commenter's recommended TDM strategies are not required to address a significant transportation impact, the recommendations will be shared with the project applicant. The County will reach out to Camarillo Area Transit to explore rerouting its bus route onto SR 34 to serve the proposed housing complex.

Response 5.5

The commenter states that a Caltrans transportation permit will be required if oversized-transport vehicles are required. Additionally, a Construction Traffic Management Plan (CTMP) will need to be

submitted for review if construction traffic will cause delays on State facilities. The commenter recommends construction truck traffic be limited to off-peak periods to minimize impact on State facilities.

The County acknowledges that the project will require a transportation permit for the use of oversized-transport vehicles on State facilities and that a CTMP may need to be submitted to Caltrans for review. This permit has been added to Table 2-3, Required Approvals, on page 2-20 of the Final EIR. This revision does not affect the Draft EIR conclusions. The County does not limit construction traffic to off-peak hours nor does it impose conditions on construction traffic. Based on assumptions used for the CalEEMod model run, there would be 1,400 trips each for the three grading phases with an average length of 20 miles. These phases include 45 days of construction each, resulting in about 31 trips per day on average of construction hauling trips. This is a negligible increase in traffic and would not be significant. As such, the project would minimize traffic impacts to State facilities.

Response 5.6

The commenter supports construction of access connections to Somis Road meeting the County of Ventura and Caltrans' design standards. The commenter also states that the project will likely require an encroachment permit, but leaves the final decision to the Office of Permits.

The access connections would be designed in accordance with Caltrans' design standards. The County acknowledges that the project may require a permit from the Caltrans' Office of Permits for any right of way improvements. This permit has been added to Table 2-3, Required Approvals, on page 2-20 of the Final EIR. This revision does not affect the Draft EIR conclusions.

California
Department of Conservation
Geologic Energy Management Division

Gavin Newsom, Governor
David Shabazian, Director
801 K Street, MS 18-05
Sacramento, CA 95814
T: (916) 445-9686

Letter 6

11/06/2020

County: Ventura - Ventura County Planning Division
Justin Bertoline
800 South Victoria Avenue, L# 1740, Ventura, CA 93009-1740, USA
justin.bertoline@ventura.org

Construction Site Well Review (CSWR) ID: 1012157

Assessor Parcel Number(s): 1560180048

Property Owner(s): Somis Ranch Partners, LLC

Project Location Address: Highway 34 and Upland Rd/Las Posas Rd, Somis, California, 93066

Project Title: Somis Ranch Farmworker Housing Complex SCH# 2020049020

Public Resources Code (PRC) § 3208.1 establishes well reabandonment responsibility when a previously plugged and abandoned well will be impacted by planned property development or construction activities. Local permitting agencies, property owners, and/or developers should be aware of, and fully understand, that significant and potentially dangerous issues may be associated with development near oil, gas, and geothermal wells.

The Division of Oil, Gas, and Geothermal Resources (Division) has received and reviewed the above referenced project dated 9/22/2020. To assist local permitting agencies, property owners, and developers in making wise land use decisions regarding potential development near oil, gas, or geothermal wells, the Division provides the following well evaluation.

The project is located in Ventura County, within the boundaries of the following fields:

No wells are within the proposed project area, Records indicate that one abandoned oil and gas well, “Well No.” 1 F. M. Hewlett (API: 0411105680) is located proximal to the southern boundary of the project and approximately 500 feet southeast of the project footprint. Well records indicate that “Well No.” 1 is located 100 feet south of the centerline of Somis road. If this development plan is changed please file an updated plan with CalGEM. CalGEM may then recommend that an effort to locate this well is made prior to any development.

Our records indicate there are 0 known oil or gas wells located within the project boundary as identified in the application.

- Number of wells Not Abandoned to Current Division Requirements as Prescribed by Law and Projected to Be Built Over or Have Future Access Impeded by this project: 0
- Number of wells Not Abandoned to Current Division Requirements as Prescribed by Law and Not Projected to Be Built Over or Have Future Access Impeded by this project: 0
- Number of wells Abandoned to Current Division Requirements as Prescribed by Law and

Gavin Newsom, Governor
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801 K Street, MS 18-05
Sacramento, CA 95814
T: (916) 445-9686

Projected to Be Built Over or Have Future Access Impeded by this project: 0

- Number of wells Abandoned to Current Division Requirements as Prescribed by Law and Not Projected to Be Built Over or Have Future Access Impeded by this project: 0

As indicated in PRC § 3106, the Division has statutory authority over the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells, and attendant facilities, to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil, gas, and geothermal deposits; and damage to underground and surface waters suitable for irrigation or domestic purposes. In addition to the Division's authority to order work on wells pursuant to PRC §§ 3208.1 and 3224, it has authority to issue civil and criminal penalties under PRC §§ 3236, 3236.5, and 3359 for violations within the Division's jurisdictional authority. The Division does not regulate grading, excavations, or other land use issues.

If during development activities, any wells are encountered that were not part of this review, the property owner is expected to immediately notify the Division's construction site well review engineer in the Coastal district office, and file for Division review an amended site plan with well casing diagrams. The District office will send a follow-up well evaluation letter to the property owner and local permitting agency.

Should you have any questions, please contact me at (805) 937-7246 or via email at Pat.Abel@conservation.ca.gov

Sincerely,

Pat Abel
Coastal District Deputy

Letter 6

COMMENTER: Pat Abel, Coastal District Deputy, California Department of Conservation

DATE: November 6, 2020

The commenter states that the Division of Oil, Gas, and Geothermal Resources reviewed the project and that no wells are located within the proposed project area, but that there is one abandoned oil and gas well located 100 feet south of the centerline of Somis Road. The commenter requests that the Geologic Energy Management Division (Division) be updated if the development plan is changed or if any wells are encountered during construction that were not part of this review.

The proposed project would not affect the abandoned oil and gas well located approximately 100 feet south of SR 34, as this is outside of the project site and no work is proposed in this area. The County will notify the Division if the development footprint is changed or if any wells are encountered during construction that were not part of this review.

Letter 7

HOUSE FARM WORKERS!

Promoting safe, decent, and affordable housing
for Ventura County farm workers since 2004.

November 16, 2020

Members of City Council and Planning Commission
601 Carmen Dr #6034,
Camarillo, CA 93010

Subject: Somis Ranch Farmworker Housing Project

Dear City Council and Planning Commission members,

The proposed Somis Ranch Farmworker Housing Project is worthy of your support for several reasons:

- It addresses a critical need for safe, healthy and affordable homes for the people who are essential to maintaining the green fields and orchards that surround Camarillo.
- It is well planned and follows a successful farm worker housing model which incorporates good management, and many amenities and services for residents.
- It is compatible with Camarillo land use and development standards and promotes fair housing.

It is understandable that a project of this size, which is dedicated to housing people who are largely unknown to most city residents, raises some concerns. We want to assure you that these worries are unfounded and should not be an obstacle to endorsing the project. (See attached House Farm Workers letter re County EIR for more detail.)

Yes, it is a bold proposal in response to a big need. But the project will be built in phases and there will be opportunities to evaluate and fine tune solutions for any unexpected consequences before a second phase begins.

Farm workers are not “those other people” to be feared and kept at a distance. You may think that they are mostly migrant or temporary employees here for the harvest season, but the majority are permanent members of our communities. On average, they have lived in Ventura County for ten years. Residents of similar housing in other parts of the County have been good neighbors, enhancing the surrounding community. Most of the people who are able to move into these apartments will be coming from poor housing that threatens their health and safety. They will appreciate and value the privacy and security which gives their children a better chance to remain healthy and do well in school.

Research shows that families thrive when they are able to access libraries, stores, and other urban services. The Somis Ranch location is identified by the California Fair Housing Task Force as a "High Resource" site which will promote opportunity and support positive economic, health and education outcomes for low income families, particularly the children.

The pandemic has highlighted farm workers as "essential" and also revealed the hazards they face living in overcrowded homes. Please support them and the continued success of Ventura County agriculture by giving your official blessing to the Somis Ranch Farmworker Housing Project.

Sincerely,

The *House Farm Workers!* Board of Directors: Linda Braunschweiger, Ellen Brokaw, Gail Weller Brown, Priscila Cisneros, Karen Flock, Susan Johnson, John Krist, Leslie Leavens, Lauren Nichols, Bernardo Perez, Chris Stephens.

Attachment: Letter re: County EIR

Letter 7

COMMENTER: House Farm Workers!

DATE: November 3, 2020

The commenter states support for the proposed project. The commenter's support is noted.

Letter 8

HOUSE FARM WORKERS!

Promoting safe, decent, and affordable housing
for Ventura County farm workers since 2004.

November 16, 2020

Mr. Dave Ward, AICP, Director
Ventura County Planning Division
800 South Victoria Avenue
Ventura, CA 93009

Subject: Somis Ranch Farmworker Housing Complex Draft EIR
Case Number: PL19-0046

Mr. Ward,

Thank you for the opportunity to comment on the Draft Environmental Impact Report prepared for the proposed Somis Ranch Farmworker Housing Complex. Our review of the document found the analysis to be both thorough and accurate. Importantly, the Draft EIR properly concludes (in Tables 4.11-1 thru 4.11-4) that the project is consistent with all applicable SCAG RTP/SCS Strategies as well as the County's previous (2019) and newly adopted 2040 General Plans. This in large part explains the report's accurate conclusion that all potential environmental impacts except one are either not significant or mitigated to a less than significant level.

The proposed project incorporates a number of elements that not only represent good project design but also self-mitigate potential environmental impacts. The proposed 360-unit housing complex includes a variety of associated amenities such as community centers, play fields, tot lots/playgrounds, a basketball court, a community garden area, and a network of meandering pedestrian walkways. All of these obviate the need for project residents to travel off-site for many social and recreational activities, thereby reducing travel as well as demands on existing recreational programs and services.

In addition, the proposed project includes a community wastewater treatment facility (CWWTF) designed to treat wastewater (sewage) generated by the housing complex to tertiary treatment standards. This effluent, referred to as "recycled water," would be beneficially reused for off-site agricultural irrigation. The project site is situated adjacent to approximately 70 acres of orchards. Currently, the adjacent orchards are irrigated with relatively low-quality groundwater pumped from a private well. If the proposed project is approved and built, higher-quality recycled water generated by the CWWTF would be blended with pumped groundwater to improve the quality of agricultural irrigation water. As has been demonstrated for decades in Ventura County, improved water is essential to the continued success of our local agriculture.

P.O. Box 402, Santa Paula, CA 93061 | (805) 921-0430 | info@housefarmworkers.org | www.housefarmworkers.org

While the report is technically correct in its conclusion that the project leads to the loss of prime agricultural soils and therefore results in an unavoidable significant impact under the County's guidelines, the analysis and the County's guidelines do not take into account one of the central facts related to farmland in Ventura County: without farm workers, there is no farm land. Fortunately, the County's General Plan policies and the SOAR Ordinance passed by the voters reflect this reality, which explains why the proposed project is consistent with the General Plan and requires no SOAR vote.

Finally, the report outlines the 12 objectives of the proposed project. The objectives relate to the project itself (e.g., affordable and safe housing for farm workers) as well as the greater community (e.g., no adverse impacts to existing infrastructure, compatibility with neighboring land uses). These are all important and worthy objectives and the proposed projects meets every one of them. It is a rare project that can meet all of these goals and remain consistent with the County General Plan and SOAR Ordinance, and for this reason we urge the County to certify the environmental document and approve the proposed project so that Ventura County's farm workers, long recognized to be "essential workers", have a greater opportunity to live in safe, decent and affordable housing.

Sincerely,

The *House Farm Workers!* Board of Directors: Linda Braunschweiger, Ellen Brokaw, Gail Weller Brown, Priscila Cisneros, Karen Flock, Susan Johnson, John Krist, Leslie Leavens, Lauren Nichols, Bernardo Perez, Chris Stephens.

Letter 8

COMMENTER: House Farm Workers!

DATE: November 3, 2020

The commenter states support for the proposed project. The commenter's support is noted.

Letter 9

Somis Ranch Farmworker Housing Project

Draft Environmental Impact Report

November 2020

Comments by: Patrick Richards

Pg ES-10	T-2: No modification of street; traffic study says left turn bays are required	9.1
Pg ES-12	Impact LU-3: Where is the justification?	9.2
Pg 2-8	Figure 2-36: Housing Complex Site Plan is unreadable within the electronic format.	9.3
Pg 2-9	Figure 2-4: Type Three Story Residential Building elevations - Where are the Two Story elevations?	9.4
Pg 2-11	2.5.1.2: Vehicular Access & Parking: • There are no garages or carports - all open parking…where is the justification? • Does the project have legal access to the proposed vehicle access over the 40-ft. wide easement to the south?	9.5 9.6
Pg 2-16	Community Wastewater Treatment Facility (CWTF): How often do the two 12,000-gallon sludge tanks get moved off-site?	9.7
Pg 2-19	When will the Planning Director make a decision regarding consolidating the entitlement decision?	9.8
Pg 4.2-6	<u>Mitigation Measures</u> Is the 17.93-acre parcel under a different ownership than the project site?	9.9
Pg 4.2-9	Project equals 1120 persons (1120 / 360) = 3 persons per household, presumed to have a "less than significant impact"; will that be a limitation on the project?	9.10
Pg 4.7-10	No roadway changes? Pg. 29 of the Traffic Study states the need for a right turn lane at the project's northern entry/exit. Pg. 29 also states the need for left turn pockets. Will this not require roadway widening?	9.11
Pg 4.7-3	Local Regulations: Section 8108-4.8.1 states that the application, prior to approval, provide a Transportation Demand Management Plan (TDMP). Has this been accomplished? Does the public have an opportunity to review the TDMP? Who is tasked to perform this study?	9.12
Pg 4.7-10	The EIR references VMT "supports a presumption of a less than significant impact for a 100% affordable residential development in infill locations." Text goes on to state that this project is not an infill development *and* that site residents would likely work nearby. It does not appear that the majority of farmworkers would work on the properties east and west of Somis Road without the use of a vehicle. Thus it seems that this assumption is flawed.	9.13

	Bus Stop The EIR appears to be mute as to the need for a bus turnout to accommodate the project.	9.14
Pg 4.7-12	4.7.2.3 Cumulative Impacts Towards the bottom of the page there is a reference to a statement that not enough farmworkers here would use the bus system therefore the statement of 'less than significant' is made by the author. Where is the documentation to back up this assumption?	9.15
Pg 4.8-3	Impact SW-1 First paragraph states that the "Camarillo Sanitary District on-site wastewater treatment would be required for the proposed housing project." Should it not reference the need for the CWTF? It also does not state how often the two 12,000-gallon sludge tanks would be drained and hauled off-site.	9.16
4.9.1.2	Project Site There is reference to drainage from the project site being convied into a City of Camarillo storm drain. Does this project have the legal authority to allow this residential development to drain into a City of Camarillo storm drain? Is the City storm drain large enough to add project runoff?	9.17
4.9.1.3	Water Quality Reference is made to the Channel Islands Harbor area impacted by lead and zinc in sediments. Inasmuch as the project site is located several miles removed from the Channel Islands Harbor, why such a statement within this Draft EIR?	9.18
Pg 4.9-6	Porter-Cologne Water Quality Control Act: Within the fourth paragraph there is reference to a "WQO". What is this acronym referencing? Of note: There are a number of acronyms used within this Draft EIR that make understanding the document difficult.	9.19
Pg 4.9-10	Construction Within the second paragraph there is reference to a Table 8 of the MS4 permit. Where can the reader of this document find the referenced Table 8? There is no description of any details regarding the MS4 permit proposed. Example: How is dirt and debris prevented from finding its way onto Somis Road (SR 34) inasmuch as Bell Ranch Road is unimproved as it enters Somis Road?	9.20
Pg 4.9-12	Impact WQ-2 There is no reference as to how many gallons per day would be the outfall from the CWTF. Does the adjacent agricultural property have the capacity	9.21

to absorb the amount of recycled water from the CWTF produced each day? If not, what percentage would be directed to the 60 seepage pits?

Section 4.10 Land Use and Planning

Within the first paragraph there is no mention of the Guidelines for Orderly Development. There is only reference to the County's General Plan goals and policies and the County's SOAR ordinance. 9.22

Pg 4.10-4 Policy 1.6-2-1. Where is the justification to explain how this proposed project has been planned and designed to remove as little as possible land from agricultural productions? 9.23

SOAR Ordinance

Within the SOAR Ordinance (Section 3.2.1 Goals) there is a reference to Section 3.2.1, 4. Agricultural, Subsection (7) that states the SOAR Ordinance is "subject to state law, the Guideline for Orderly Development and…" Why is there no discussion regarding consistency with the Guidelines for Orderly Development? 9.24

Within the SOAR Ordinance, Section 3.2.2 Policies under Section 4. Agricultural, Subsection (2) the smallest minimum parcel size consistent with agricultural land use designation is 40 acres. What is the justification for the 17-acre remaining agricultural parcel created by this proposed project? 9.25

Within the SOAR Ordinance, Section 1, Findings and Purpose, Section H it states "To the extent possible, farmworker housing, located in existing urban areas, would be encouraged in order to help sustain the viability of agriculture." With a land use residential density of approximately 20 dwelling units per acre, this project certainly appears to be an urban use. Where is the justification that the project meets the intent of the SOAR Ordinance Section H above? 9.26

* Section 3.2 Land Use Designations, 'urban' refers to building intensity as one principle dwelling unit per two acres

Within the SOAR Ordinance, Section 5. Severability it states that "It is the intent of the voters that the provisions of this measure shall be interpreted by the County and others in a manner that facilitates the confinement of urban uses thereby protecting and promoting agricultural, open space and rural lands, and preventing urban sprawl for the duration of the Ordinance." Inasmuch as the proposed project is urban in nature, the above text seems to preclude the project. 9.27

Pg 4.10-13 Impact LU-2

This section refers to General Plan Policy 1.6.2-1 which states that it is "to remove as little land as possible from potential agriculture production and to minimize impacts to topsoil. The Draft EIR does not explain why an 18-acre site is needed nor how it is impacting "as little land as possible". Would not 5 acres or 10 acres accomplish the same? 9.28

Pg 3-14 Chapter 3. Land Use VC 2040 General Plan Background Report. First paragraph

Guidelines for Orderly Development - As articulated in the Guidelines "urban development" is defined as the need for a new community sewer system, or the expansion of an existing community sewer system, the creation of lots less than two acres in area, or the establishment of commercial or industrial uses not related to agriculture or production of mineral resources. How is this Draft EIR justifying consistency with the Guidelines for Orderly Development? 9.29

Pg 4.10-13 Impact LU-3

Consistency with SOAR

This section of the Draft EIR totally ignores the SOAR Initiative Section 1. Findings and Purpose, Subsection H which addresses the fact that "to the extent possible, farmworker housing, located in existing areas, should be encouraged in order to help sustain the viability of agriculture."

A proposed 360-unit farmworker dwelling complex located on 18.5 acres has a dwelling unit density of 19.46 dwelling units per acre (as illustrated below). The Thousand Oaks Area Plan lists as its highest dwelling unit density as "Urban Residential 12-16 DU/AC. The El Rio/Del Norte Area Plan lists as its highest dwelling unit density as "Urban Residential 20 DU/AC. The term "urban" within SOAR (Section 3.2 Land Use Designations) "is utilized to depict existing and planned urban centers which include commercial and industrial uses as well as residential uses where the building density is greater than one principle dwelling per two acres."

Under Goals of the SOAR initiative (Section 3.2.1 Goals) Subsection 1 (3) URBAN) it states "Discourage outward expansion of urban development where suitable development area exists within cities and unincorporated urban centers." 9.30

Ventura County Guidelines for Orderly Development

Policies Within Areas of Interest Where a City Exists (Outside that City's Sphere of Influence)

- Urban development should be allowed only within Existing Communities as designated on the County General Plan.

The definition listed under the Guidelines for Orderly Development states the following:

Development shall be considered urban if it meets any of the following: 9.31

1. It would require the establishment of new community sewer systems or the significant expansion of existing community sewer systems.

With the development of an 18.5-acre site with a dwelling unit density of nearly 20 DU/AC and the need to develop a sewer treatment facility to support the project, it does not appear to meet the intent of the Guidelines for Orderly Development. 9.31, cont'd

Table 4.11-4 Project Consistency with Draft V.C. 2040 General Plan
The text regarding consistency with the Guidelines for Orderly Development completely ignores the statement that the project requires a Community Sewer Treatment facility.

Pg 4.11-5 Table 4.11.1 Project Consistency with Applicable SCAG 2016-240 RTR/ SCS Strategies:
Under the second Consistent
Reference to the project being approximately one mile south of the Ventura County Transportation Commission Route 77. Being one mile from a bus stop does not appear to be consistent with SCAG's intent regarding HQTA's. 9.32

Under the second Consistent
How is the connect to an existing sidewalk (within the City of Camarillo) not currently on the frontage of Somis Road? 9.33

Pg 4.11-6 Transportation Strategies under Transit
Continues to discuss the fact that the local bus stop is located a mile from the project site. There are no sidewalks from the project site to the identified bus stop (other than limited sidewalk within downtown Somis). 9.34

Under Active Transportation
The discussion under Consistent appears inconsistent with the SCAG 2016 RTP/SCS 12.9 Billion investment in maintenance of regionally significant local streets and roads. The proposed project is not on a significant local street or road. 9.35

Pg 4.11-8 Listed under Leverage Technology Innovations, Consistency
Will the electric vehicle charging station be free to residents? 9.36

Pg 4.11-9 Under Promote a Green Region, the sixth bullet point, it states "Reduce consumption of resource areas, including Agriculture." Project proposed to develop 18.5 acres of prime and statewide agriculture lands. How is the project consistent with SCAG's "Promote a Green Region"? 9.37

Table 4.11-4 Project Consistency with Draft Ventura County 2040 General Plan
(Refer to previous comments.) 9.38

Pg 4.11-11 CTM-2.3 County Road Access, under Consistent reference is made to the fact the project's access points onto Somis Road will be built to County Standards. Somis Road at these access points are under the authority of CalTrans, not the County of Ventura. 9.38, cont'd

CTM 2-27 states that the County shall require that discretionary development be subject to permit conditions of approval, where feasible, to minimize traffic impacts by incorporating…rideshare programs, (bus turnouts, shelters, benches), and/or Transit subsidies for employees or residents of the proposed development. There is no reference within the Draft EIR that the project is providing rideshare programs, bus turnout, or any form of transit subsidies. 9.39

Pg 4.11-12 CTM-6.4 & CTM 6.5
(See previous comment.)

Pg 4.11-13 COS-9.1 Open Space Preservation under Consistent. How does clustering discourage conversion of lands currently used for agriculture? 9.40

Pg 4.11-16 Under Public Services. Refers to the payment of school fees to Somis Union School District and the Oxnard Union High School District. It does not explain how the project will impact these school districts. Also, Water District 19 will need to extend a water line from the Somis neighborhood which is the better of a mile extension. The Draft EIR text has glossed over these impacts. 9.41

Pg 5-1 Section 5.1.1 Population Growth, the first paragraph appears to imply that the occupants of the proposed 360-unit development are new residents. Inasmuch as the intent of this project is to provide affordable housing for farmworkers currently residing within the County, not 1,215 new County residents, and the second paragraph states that the project occupants will "likely live and work within the County;" how is the reader to know which scenario is correct? 9.42

Section 5.1.3 Remove Obstacles to Growth
This section begins with a statement that the project site is served by existing infrastructure. Currently Water Works District 19 does not serve the subject proposed residential site nor does electric, telephone or cable services. All of these utility services would need to be extended to the project site. Regarding the Community Wastewater Treatment Facility, there is a discussion that the CWTF has the potential of being expanded in the future. Is this proposed project a precursor for more development? Should this project be approved, it would establish a precedent within the AE Zone. Inasmuch as County Planning staff has determined that the project was exempt from the SOAR Initiative, this type of development 9.43

has the potential of being replicated throughout the AE Zone in the County.

Section 5.2 Irreversible Environmental Effects
At the top of page 5-3 the first sentence states that “The proposed project would include development on a portion of a mostly undeveloped project site in unincorporated Ventura County.” This is a false statement inasmuch as the project site is developed as an agriculture production land which is developed for the purpose of growing food and fiber products. 9.44

6. Alternatives
Within the first paragraph it states that the alternatives selected need to meet “most of the basic objectives of the project.” Why is this a requirement to consider alternatives for the project? There is no discussion regarding a reduction of the number of units within the Alternatives section of the Draft EIR. Also, why does the financial aspect of a project play such a heavy role in the discussion of alternatives? 9.45

6.2 Alternative 2: Reduced Footprint
This alternative only reduces the project’s footprint by 1.72 acres and does not include the area needed for meeting the NPDES requirements. Of note is the fact that reducing the project footprint also increases the dwelling unit density to 21.45 DU/AC which exceeds the County’s Non Coastal Zoning code for a high density designation. 9.46

Pg 6-11 Alternate Site Location
Within this section there is no discussion regarding placement of this proposed project within a city or near the Cities of Oxnard, Santa Paula, Fillmore, or the unincorporated community of Saticoy. The statement that there are “no other known available parcels with the necessary attributes to meet the project objectives” is a statement without evidence. 9.47

Comments by Patrick Richards not addressed in the project’s Draft EIR

- Under growth inducing impacts there is no discussion with the Draft EIR regarding how the project has the potential of being replicated within the AE Zoned property throughout Ventura County. 9.48

- The Draft EIR did not expand on the County’s General Plan Goal 4.4.1-1 and Policies 4.4.2-1, 3, 4, & 5 as they relate to the proposed project. 9.49

- The Draft EIR did not address the potential impacts to the Somis School District. It only states that a school development fee would be paid. 9.50

- The Draft EIR does not discuss potential impacts to the local (V.C. Station 57) fire station. 9.51

- There is no discussion within the Draft EIR regarding lighting impacts (glare) to the adjacent Rancho Campana High School and as the project is viewed from Somis Road. 9.52

- The potential impacts to existing water rate payers within Water Works District No. 19 when this project is complete has not been analyzed in the Draft EIR. 9.53

APPENDIX B
Preliminary On-Site Wastewater Treatment System Design Report

I. Background, fifth paragraph. This is the first reference to a "Community wastewater package treatment plant". (See previous comment regarding the need for a community sewer plan as identified as an Urban development project.) 9.54

Within the sixth paragraph there is discussion of where WRBA met with the LARWQCB where they discussed treated effluent as recycled agriculture irrigation water. There is no identification of the position taken by LARWQCB nor is there an identification of whether or not the package treatment plant is an acceptable project for the LARWQCB. 9.55

The last paragraph identifies a contractual agreement with Ventura Regional Sanitation District. Has this contract been accomplished yet? Is it part of the project public record? 9.56

Page 3 of 6: 5. Seepage Pit Dispersal System
States that "the actual number of pits and configuration will be determined through the final engineering design phase." Will this require the reduction of the NPDES basin on the west side of the project to allow additional seepage pits? 9.57

III. Recycled Water Use for Agriculture Irrigation
Within the second paragraph there is reference to the need to secure off-site private easements to be able to transmit the project's recycled agriculture water. What happens is these easements are not secured? 9.58

Page 6 of 6: Wastewater Generation Quantities
If the wastewater generated is estimated to be 99,000 gallons per day, how much of this figure is recycled water? Say recycled water is 25,000 gallons per day; at 365 days it would equal 9,125,000 gallons or 28 acre feet of water. Does the adjacent agricultural 9.59

property (70 acres of orchard) have the capacity to absorb the amount of recycled water?

Attachment I Conceptual Onsite Wastewater Treatment Plant Site Plan and Dispersal Plan
On this attachment plan it shows a dispersal expansion area along the north property line. This expansion area is not identified as to its purpose. Is it to provide more seepage pits or disperse excess recycled water? This area is not discussed within the Draft EIR. 9.60

* The area adjacent to the High School shows on Figure 3 as paved. Is that correct? 9.61

Pg 8 — Revised Traffic Study
The figure on page 8 is not readable. It may be titled "Existing Traffic Volume". Same comment on page 9. 9.62

Pg 11 — Paragraph at the bottom of page 11 states that "if the project involves County General Plan land use designation changes, zone changes or intensification of use, such that the project's impacts could not have been anticipated…additional cumulative impact analysis and mitigation measures may be required of the County PWA Director." Were they? 9.63

Pg 12 — Table 6, Project Trip Generation
This table states that there will be 167 AM peak hour trips and 202 PM peak hour trips. If these units are occupied by at least one farmworkers would not the AM and PM peak hour trip be closer to the 360 dwelling unit count? 9.64

Pg 14 — Figure 5, Project Trip Distribution and Assignment
The amount of distribution percentages only add up to 82%. Where did the remaining 12% go to? 9.65

Pg 18 — Exhibit/Figure is unreadable

Pg 20 — Exhibit/Figure is unreadable

Pg 22 — Exhibit/Figure is unreadable 9.66

Pg 27 & 28 — Signal Warrant Results - Project Northern Access
The conclusion states that a signal is not warranted due to the 850 vehicles per day requirement (project generates 685 trips per day). This analysis does not consider trips generated by surrounding properties using the Bell Ranch Road. 9.67

Page 28	Left turn lane Analysis The analysis states that a northbound and southbound Somis Road left turn lane is warranted. Right turn lane Analysis It is recommended that both north and south vehicle access points be provided with right turn lanes. Is this a correct statement?	9.68
Page 30	Figure 10, Project Driveway Connection Not readable in electronic form.	9.69
Page 31	Safe Routes to School There is no discussion regarding a safe route to Somis Elementary School.	9.70
	General Plan Policy 4.2.2.5 (a) allowing traffic exceptions for farmworker housing projects. Should state on page 22 of 2040 General Plan under CTM-1.5-3 (a) The exemption for projects with unacceptable Level of Service (LOS). Does this policy fit this project?	9.71
	The project is estimated to require 33,600 cubic yards of imported soil. There is no discussion within the Draft EIR regarding what impacts this may have on Somis Road. Also, where will this 33,600 cubic yards of material come from? Will the amount of imported material create a dust impact to surrounding uses?	9.72

Letter 9

COMMENTER: Patrick Richards

DATE: November 2, 2020

Response 9.1

The commenter states that the Draft EIR Appendix H, Traffic Study, calls for left turn bays in public streets.

The commenter is correct. The Traffic Study concludes that a northbound left turn lane is warranted at the project's southern and northern entries and a right turn lane is recommended at the project's northern entry. The project applicant plans to make the roadway and intersection improvements identified in the Traffic Study, including acceleration and deceleration lanes as well as a left turn pocket. Proposed roadway improvement plans would comply with County Road Standards and would be subject to Caltrans review and approval. Proposed roadway improvements would occur adjacent to the existing roadway within heavily disturbed shoulders. Roadway improvements would not require roadway widening beyond the existing right-of-way.

Page 2-11 of the Final EIR (Section 2.5.1.2, *Vehicular Access and Parking*) has been revised to clarify and provide information about the roadway improvements as follows:

> In addition, the project would implement roadway improvements to SR 34 as recommended by the Traffic Study (Appendix H) to safely accommodate the proposed project. Roadway improvements would include an acceleration and deceleration lane as well as a left turn pocket within the existing SR 34 right-of-way. Roadway improvement plans would be subject to Caltrans review and approval.

Pages 4.7-10 to -11 of Section 4.7, *Transportation*, of the Draft EIR have been revised to clarify and provide information about the roadway improvements as follows:

Threshold 1:	Would the project have an adverse, significant project-specific or cumulative impact to the safety and design of roads or intersections within the RRN or LRN?
Threshold 2:	Would the project if a private road or private access is proposed, will the design of the private road meet the adopted Private Road Guidelines and access standards of the VCFPD as listed in the Initial Study Assessment Guidelines?
Threshold 4:	Would the project involve a road or access, public or private, that complies with VCFPD adopted Private Road Guidelines?

IMPACT T-2 THE PROJECT WOULD ~~NOT MODIFY OR OTHERWISE IMPACT THE DESIGN OF ANY PUBLIC ROADS OR INTERSECTIONS~~ IMPROVE THE PUBLIC ROADWAY ENTRANCES TO THE PROJECT SITE TO SAFELY ACCOMMODATE THE PROPOSED PROJECT. DIRECT ACCESS TO THE PROJECT WILL BE PROVIDED VIA TWO ~~SHARED~~ ACCESS CONNECTIONS THAT WILL BE DESIGNED TO MEET THE COUNTY FIRE DEPARTMENT DESIGN STANDARDS TO PROVIDE EMERGENCY VEHICLES ACCESS. THEREFORE, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

~~The project would not modify or otherwise impact the design of any public roads or intersections.~~ Regional access to the project is provided by U.S. Highway 101 and State Route

118. Direct access to the project would be provided via two ~~shared~~ access connections to Somis Road (State Route 34). The southern entrance would be shared with the North Pleasant Valley Groundwater Desalter Facility. The City of Camarillo will construct a ~~new access connection to Somis Road and improve an existing connection to Somis Road~~ portion of the southern access road as part of the North Pleasant Valley Groundwater Desalter Facility, approximately 700 feet southwest of where the eastern driveway would intersect with Somis Road at a T-intersection. A shared access agreement allowing the project to utilize the two driveway connections has been established. The segment of Somis Road adjacent to the site access is relatively straight and level, providing good sight distance. The City of Camarillo and the project applicant will be required to construct the access connections to Somis Road to County of Ventura and Caltrans design standards. The two access connections to Somis Road will be designed to meet the County Fire Department design standards to provide emergency vehicles access.

In addition, the project would implement roadway improvements to SR 34 as recommended by the Traffic Study (Appendix H) to safely accommodate the proposed project. Roadway improvements would include an acceleration and deceleration lane as well as a left turn pocket within the existing SR 34 right-of-way. Proposed roadway improvement plans would comply with County Road Standards and would be subject to Caltrans review and approval. As such, the proposed project would not have an adverse, significant project-specific or cumulative impact to the safety and design of roads or intersections.

Therefore, the project would result in a less than significant impact associated with public roadway or intersection design and private access.

In addition, Caltrans review and approval of roadway improvement plan to SR 34 has been added to Table 2-3, Required Approvals, in the Draft EIR.

Proposed roadway improvements would not affect any sensitive environmental resources, nor would they introduce a new significant environmental impact. The change to the Draft EIR is not "significant new information" because it does not identify a new avoidable significant effect, show a substantial increase in the severity of an environmental impact, identify a feasible project alternative or mitigation measure considerably different from others previously analyzed, or involve a change to mitigation measures that were proposed in the Draft EIR. In addition, the proposed revision is a minor change to the EIR that merely clarifies, amplifies, or makes insignificant modifications to the document.

Response 9.2

The commenter asks where the justification is for the Impact LU-2 summary in the Executive Summary of the Draft EIR.

Impact LU-2 is discussed in detail in Section 4.10, *Land Use and Planning*. This discussion can be found on page 4.10-13 of the Draft EIR. As discussed under Impact LU-2 on 4.10-13 of the Draft EIR, the project would "preserve and protect agricultural lands…to assure the continued availability of such lands for the production of food, fiber, and ornamentals" (Goal 1.6.1-1) by including a 17.93-acre continued agricultural use parcel on the project site for continued agricultural crop production. Although the project would include development on Important Farmland and land designated as Agricultural by the General Plan, it would also comply with Policy 1.6.2-1 because project has been designed "to remove as little land as possible from potential agricultural production and to minimize impacts on topsoil." In addition, the proposed housing complex has been designed to minimize potential "conflict with agricultural use of those lands" with the use of

proposed landscaped buffers and parking lots between the proposed apartment buildings and adjacent agricultural fields (Policy 1.6.2-6).

The Ventura County NCZO allows for the development of farmworker housing complexes on parcels smaller than the prescribed minimum lot area on land zoned AE within or adjacent to a city Sphere of Influence, provided the remaining non-farmworker housing complex parcel is a minimum of 10 acres (Ventura County NCZO Section 8103-2.7). The project would include the continuation of agricultural use on a 17.93-acre continued agricultural use parcel on a project site zoned AE that is adjacent to the City of Camarillo (and its Sphere of Influence).

With implementation of state and County regulations outlined in Section 4.2, Agricultural Resources – Soils, the project would be consistent with the General Plan goals and policies pertaining to agricultural soils. Impacts would be less than significant.

Response 9.3

The commenter states the site plan on page 2-8 of the Draft EIR is unreadable within the electronic format.

An updated Figure 2-3b, Housing Complex Site Plan, has been added to the Final EIR in 11 x 17 format.

Response 9.4

The commenter notes the inclusion of three-story residential building elevations in Figure 2-4 of the Draft EIR and asks where the two-story elevations are located.

As displayed on page 2-10 of the Draft EIR, Figure 2-5 shows the typical elevations of the two-story community centers.

Response 9.5

The commenter states there are no proposed garages or carports included in the proposed project and asks for the justification behind providing only open parking.

Covered parking is typically required; however, the project applicant has submitted a waiver of covered parking requirements through Government Code 65915(e)(1), which precludes affordable housing projects from development standards that "will have the effect of physically precluding the construction." Because garages and carports would add to the cost of construction, and also to the proposed units' monthly rental prices, the project applicant has requested a waiver of required covered parking to ensure the proposed project is economically feasible.

Response 9.6

The commenter asks whether the project has legal access to the 40-foot wide easement at the proposed southern entrance to the project site.

The proposed project has legal access to the referenced easement.

Response 9.7

The commenter asks how often the two 12,000-gallon sludge tanks at the CWWTF would be moved off the project site.

The proposed 12,000-gallon sludge tanks would remain on the project site. However, the proposed CWWTF would be operated by the Ventura Regional Sanitation District in accordance with the requirements and standards set forth by the Los Angeles RWQCB and SWRCB, as applicable, to ensure the proper operation and maintenance of the facility. As stated on page 2-16 of the Draft EIR, "Sludge wasting pumps would remove a portion of the activated sludge to two 12,000-gallon sludge storage tanks for appropriate removal and off-site disposal at a facility licensed to accept such waste." Activated sludge would be temporarily stored in the on-site tanks. The tanks would be periodically emptied and the activated sludge would be removed and disposed of at a facility licensed to accept such waste.

Response 9.8

The commenter asks when the Planning Director will make a decision regarding consolidating the entitlement decision.

The proposed project is scheduled for Planning Commission on January 14, 2021 and for Board of Supervisors on February 2, 2021.

Response 9.9

The commenter asks whether the 17.93-acre continued agricultural use parcel is under different ownership than the project site.

The proposed 17.93-acre continued agricultural use parcel is currently under the same ownership as the rest of the project site.

Response 9.10

The commenter asks whether the project will have a limitation of 3 persons per household, given that the Draft EIR relies on a population estimate of 1,120 which relates to 3 persons per household.

It is assumed that this comment is referencing Page 4.7-9 and not Page 4.2-9, as stated in the comment since there is no page numbered 4.2-9 in the Draft EIR. The estimated persons per household used in the analysis was 3.11 (360 units * 3.11 persons/unit = 1,120 persons). The estimated population of 3.11 persons per household was based on County populations and housing estimates from the California Department of Finance and the United States Census Bureau. The size of the households occupying the proposed housing complex would not be restricted and, similar to other households in the County, some households may be larger than 3 persons but other households would be smaller than 3 persons. The average persons per household occupying the proposed housing complex is anticipated to be generally consistent with the average persons per household for the County as a whole.

Response 9.11

The commenter states page 29 of the Draft EIR Appendix H, Traffic Study, identifies a need for a right turn lane at the project's northern entry/exit and left turn pockets. The commenter asks whether this will require roadway changes such as roadway widening.

Please refer to Response 9.1.

Response 9.12

The commenter cites Section 8108-4.8.1 of the Ventura County Non-Coastal Zoning Ordinance (NCZO) and asks whether the applicant has provided a Transportation Demand Management Plan (TDMP). The commenter asks whether the public will have an opportunity to review the TDMP and inquires who is tasked to perform the study.

This section of the NCZO relates to a reduction in the number of parking spaces. This section does not apply to the proposed project, as it is not included in the request and the project exceeds the minimum parking requirement. As such, a TDMP would not be required.

Response 9.13

The commenter states an opinion that the majority of farmworkers living at the proposed housing complex would likely not work at agricultural properties east and west of Somis Road without the use of a vehicle. The commenter therefore disagrees with the Draft EIR's presumption that, as an affordable housing project with residents working nearby, the project would have a less than significant impact to VMT.

As discussed on page 4.7-10 in Section 4.7, *Transportation*, of the Draft EIR:

> Affordable housing generates less VMT than market-rate housing and generally improves the jobs housing match, shortening commutes and reducing VMT (OPR 2018).[4] According to OPR's Technical Advisory on Evaluating Transportation Impacts, evidence supports a presumption of a less than significant impact for a 100 percent affordable residential development in infill locations. The project site is not located in what would ordinarily be defined as an infill location, but it would provide 100 percent affordable multi-family housing for farmworkers and the project site is in an agricultural area near where site residents would likely work. The project also would be consistent with Section 8107-41.1 of the County NCZO [Non-Coastal Zoning Ordinance] farmworker employment criteria; potential residents would be required to demonstrate that they either: (1) earn at least 51 percent of their annual income from qualifying agriculture; and/or (2) are employed in agriculture for at least 51 percent of the total days employed on an annual basis.
>
> The affordable housing components and agricultural location of the project are also consistent with the VMT reduction goals of the SCAG RTP-SCS, which concludes that lower income residents generate lower VMT and demonstrate the largest relative VMT reductions with location efficiency. Therefore, the project would not result in a VMT impact consistent with the VMT reduction goals of the OPR's Technical Advisory on Evaluating Transportation Impacts and would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

As stated therein, affordable housing projects are known to generally reduce VMT by shortening commutes. The Draft EIR does not, as the commenter suggests, assume that residents at the proposed housing complex would commute to agricultural properties at which they work without the use of a vehicle. The proposed project would improve the jobs-housing match, thereby reducing VMT. Furthermore, as provided in Comment Letter 5, Caltrans agrees with the Draft EIR's assessment that the proposed project is presumed to have a less than significant impact to VMT.

[4] Reference cited in Draft EIR, not this Responses to Comments document.

Response 9.14

The commenter states the Draft EIR does not address the need for a bus turnout to accommodate the proposed project.

Figure 2-3b, *Housing Complex Site Plan*, has been revised in the Final EIR to show a school bus turnout at the project site. The school bus turnout would be located near the southern vehicle access point to the housing complex.

Response 9.15

The commenter asks for documentation to support the statement on page 4.7-13 of the Draft EIR that "some farmworkers may use bus service but not in sufficient numbers to overburden the line."

The comment is in reference to Cross County Limited Route 77, which provides service between Ventura, Oxnard, Camarillo, Somis, Moorpark, and Simi Valley. Because the bus route would not provide farmworkers direct access to agricultural properties on which they work, trips via Cross County Limited Route 77 would be reasonably assumed to be infrequent trips to the surrounding Cities for non-work related activities such as shopping or recreation. The majority of trips to and from the project site would be for travel to and from work and transit riders would likely not utilize Cross Country Limited Route 77, which provides transit between Cities and not local destinations within Somis. Additionally, only a fraction of the total residents would utilize transit versus private vehicles. Therefore, the infrequent trips via Cross County Limited Route 77 would not be anticipated to be frequent enough or in sufficient numbers to overburden the bus line.

Additionally, as detailed in Response 9.32, a bus stop for the Camarillo Area Transit is located 1/3 mile from the project site. This bus line provides bus service throughout the City of Camarillo. The majority of trips to and from the project site would be for travel to and from nearby farmlands for work. Because of the lack of farmland within the City of Camarillo along the Camarillo Area Transit line, the farmworkers would not be anticipated to utilize this bus line for work trips. Therefore, trips via the Camarillo Area Transit line would be reasonably assumed to be infrequent trips to the City of Camarillo for non-work related activities such as shopping or recreation. Additionally, only a fraction of the total residents would utilize transit versus private vehicles. Therefore, the infrequent trips via the Camarillo Area Transit would not be anticipated to be frequent enough or in sufficient numbers to overburden the bus line.

Response 9.16

The commenter asks whether the reference "the Camarillo Sanitary District on-site wastewater treatment" cited on page 4.8-3 of the Draft EIR should instead reference the CWWTF. The commenter states this paragraph does not address how often the two 12,000-gallon sludge tanks would be drained and hauled off-site.

The reference to the Camarillo Sanitary District on-site wastewater treatment is a typographical error. As the commenter suggests, this text should instead refer to the CWWTF. For clarification, the text on page 4.8-3 of the Draft EIR is revised as follows:

> The project site is located more than 200 feet from the closest existing Camarillo Sanitary District facilities and is outside both the Camarillo city limits and the Camarillo Sanitary District limits. For these reasons, the ~~Camarillo Sanitary District on-site wastewater treatment~~ on-site CWWTF would be required for the proposed housing complex.

As noted in Response 9.7, the sludge tanks would remain on-site. As discussed on page 4.8-3 of the Draft EIR:

> Sludge wasting pumps would remove a portion of the activated sludge (biosolids) from the CWWTF treatment process to two approximately 12,000-gallon sludge storage tanks until the biosolids are transported for disposal at a facility licensed to accept this type of waste.

It is not known at this time how often the sludge tanks would need to be emptied for disposal. However, the proposed CWWTF would be operated by the Ventura Regional Sanitation District in accordance with the requirements and standards set forth by the Los Angeles RWQCB and SWRCB, as applicable, to ensure the proper operation and maintenance of the facility.

Response 9.17

The commenter asks whether the project applicant has legal authority to direct stormwater runoff to a City of Camarillo storm drain. The commenter also asks whether the City storm drain is large enough to accommodate project runoff.

The text cited in the comment describes the existing storm drain system downstream of the project site. As described in Section 4.9.1.2 of the Draft EIR, stormwater flow from the project site is directed toward a drainage channel along the west side of the site. The drainage channel flows south to the edge of the Rancho Campana High School parking lot and turns west between the neighboring Rancho Campana High School and Church of Latter-Day Saints properties. The drainage channel conveys flows into a City of Camarillo storm drain system via an inlet structure 300 feet west of the project site. Storm drain systems typically cross jurisdictional boundaries and connect to other downstream storm drain systems within other jurisdictions.

The proposed project would not change stormwater runoff to the City of Camarillo's storm drain system compared to existing conditions. As discussed in Section 4.9.2.2 of the Draft EIR, outflow from the two proposed detention basins would be released into the existing drainage channel along the west side of the site via storm drain diversion structures and channels. The project's detention basins would reduce post-construction peak runoff flows to current peak runoff flows. The project would not alter the connection to or increase flow to the City of Camarillo storm drain system compared to existing conditions.

As such, stormwater discharge to the City of Camarillo storm drain system from the project site would be similar to that already occurring in the existing condition and the applicant would retain legal authority to direct stormwater to the storm drain. In addition, the project would be subject to conditions of approval, which will require a Watershed Protection District Post-Construction Stormwater Management Plan.

Response 9.18

The commenter asks why the Draft EIR references water quality impairments in the Channel Islands Harbor.

Stormwater runoff and associated pollutants from the project site have the potential to affect downstream receiving waters. The Draft EIR identifies water quality impairments at the Channel Islands Harbor and Oxnard area beaches because they are located downstream of the proposed project site.

Response 9.19

The commenter asks what the acronym "WQO" is referencing on the fourth paragraph of page 4.9-6 of the Draft EIR. The commenter states that there are a number of acronyms in the Draft EIR that make understanding the document difficult.

Acronyms are defined upon first use throughout the Draft EIR. As defined two pages earlier on page 4.9-4 of the Draft EIR, "WQO" refers to water quality objectives established under the Clean Water Act.

Response 9.20

The commenter asks where the reader can find the referenced Table 8 of the MS4 permit. The commenter states there is no description of the proposed MS4 permit in the Draft EIR. The commenter asks how dirt and debris will be prevented from finding its way onto Somis Road, given that Bell Ranch Road is unimproved as it enters Somis Road.

As stated in Section 4.9.2.2, the project is subject to the requirements of the Ventura County MS4 Permit (NPDES No. CAS004002), which provides compliance with the *California State Construction General Permit* (Order No. 2009-2009-DWQ). This permit is available to the public via the State Water Resources Control Board website at the Los Angeles Regional Water Quality Control Board's website at https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/ventura.html. Links to the permit are also available on the Ventura Countywide Stormwater Quality Management Program website at https://vcstormwater.org/index.php?option=com_content&view=article&id=17. The Ventura County MS4 Permit is summarized under "Local Regulations" in Section 4.9.1.4 of the Draft EIR (page 4.9-8). As detailed in Section 4.9.2.2, the project would comply with the requirements of the Ventura County MS4 permit and California State Construction General Permit, which require implementation of Best Management (BMPs) during construction. The BMPs to be implemented during construction would be specified in the Stormwater Pollution Prevention Plan (SWPPP) and would include tracking control BMPs (such as stabilized construction entrance/exit) to prevent dirt from being tracked onto Somis Road by construction vehicles. Street sweeping and vacuuming is also a tracking control practice that can be employed should any dirt be tracked onto Somis Road during construction.

Response 9.21

The commenter states the Draft EIR does not identify how many gallons per day of effluent would be produced by the CWWTF. The commenter asks whether the adjacent agricultural property has the capacity to accept all of the recycled water produced by the CWWTF, and if not, what percentage would be directed to the proposed seepage pits.

As stated on page 2-16 of the Draft EIR: "At full occupancy of the housing complex, the CWWTF would treat an estimated average daily flow of 99,000 gallons of wastewater per day." The owner of the adjacent agricultural property has indicated he has capacity to accept all the recycled water produced by the CWWTF at full occupancy except during heavy rain events. Nevertheless, the seepage pits would be conservatively designed to accommodate up to 100 percent of the recycled water produced by the CWWTF. No revision to the Draft EIR is required in response to this comment.

Response 9.22

The commenter states there is no mention of the Guidelines for Orderly Development in the first paragraph of Section 4.10, *Land Use and Planning.*

The project's consistency with the Guidelines for Orderly Development is evaluated in the first row of Table 4.11-4, Project Consistency with Draft Ventura County 2040 General Plan, on page 4.11-10 of the Draft EIR, as shown below:

Table 4.11-2 Project Consistency with Draft Ventura County 2040 General Plan

Policy	Project Consistency
LU-1.1 Guidelines for Orderly Development. The County shall continue to promote orderly and compact development by: ▪ Working with cities in Ventura County and the Ventura Local Agency Formation Commission (LAFCO) to promote and maintain reasonable city boundaries and Spheres of Influence to prevent growth-inducing urban development in unincorporated areas, and ▪ Require unincorporated urban development to be located in areas designated as Existing Communities and unincorporated urban centers consistent with the Guidelines for Orderly Development and as defined in Policy LU-1.2.	**Consistent**. Although the project site is not located in an area designated as an Existing Community, the project site is adjacent to the boundary of the city of Camarillo and therefore would not represent growth-inducing development because it would be well-served by minor extensions to existing utility infrastructure and public services. In addition, the project would have a density of approximately 19.5 dwelling units per acre, which is consistent with the County's Residential High Density (RHD) zoning classification that allows 20 dwelling units per acre. In addition, the project site is within 0.25 mile of local-serving retail and restaurants, the Camarillo Public Library, and Rancho Campana High School. Therefore, the project would consist of orderly and compact development.

As such, the text referenced by the commenter in the first paragraph of Section 4.10, *Land Use and Planning*, of the Draft EIR accounts for the Guidelines for Orderly Development.

In addition, the intent behind the Guidelines for Orderly Development is to site urban development within cities which can provide a full range of municipal services. The proposed project does not meet the definition of "urban development" as defined in the Guidelines for Orderly Development because:

- There is no establishment of new community sewer system or expansion of existing sewer systems;
- The project does not result in the creation of residential lots less than two acres, as it is consistent with the Ventura County General Plan and NCZO and therefore does not require a General Plan Amendment to change the existing Agricultural designation and does not require a zoning change from the current designation of Agricultural Exclusive; and,
- It does not result in the establishment of commercial or industrial uses which are neither agriculturally related nor related to the production of mineral resources as a farmworker housing complex is considered an agricultural use.

Response 9.23

The commenter asks how the proposed project has been planned and designed to remove as little as possible land from agricultural production.

The proposed 360-unit housing complex and associated amenities such as community centers, play fields, tot lots/playgrounds, a basketball court, a community garden area, and a network of meandering pedestrian walkways, have been designed to maximize use of the 18.43-acre space by

clustering units and amenities on the eastern portion of the project site. The project would include continuation agricultural crop production on a 17.93-acre continued agricultural use parcel on the project site.

Response 9.24

The commenter states the Save Open Space and Agricultural Resources (SOAR) Ordinance is subject to the Guidelines for Orderly Development. The commenter asks why the Draft EIR does not analyze the proposed project's consistency with the Guidelines for Orderly Development.

See Response 9.22.

Response 9.25

The commenter states the SOAR Ordinance identifies the smallest minimum parcel size consistent with agricultural land use designation as 40 acres. The commenter requests justification for the 17-acre remaining agricultural parcel proposed by the project.

NCZO Section 8103-2.7 and General Plan Policy 3.1.2(6), permit the creation of parcels of less than the prescribed minimum lot area (e.g., 40 acres) to accommodate Farmworker Housing Complexes on land zoned AE within or adjacent to a city's Sphere of Influence, provided the remaining non-farmworker housing complex parcel is a minimum of 10 acres. Because the proposed project is consistent with both the General Plan and the NCZO, a General Plan Amendment and rezoning is not required. Therefore, the project is consistent with SOAR.

Response 9.26

The commenter cites the following line in Section 1, Findings and Purpose, Section H of the SOAR Ordinance: "To the extent possible, farmworker housing, located in existing urban areas, should be encouraged in order to help sustain the viability of agriculture." The commenter states that the proposed project has a residential density of approximately 20 units per acre and should therefore be considered an urban use. The commenter requests justification for the project's consistency with the intent of the SOAR Ordinance cited above.

The purpose of the Ventura County Save Open Space and Agricultural Resources (SOAR) initiative is to protect open space and agricultural land by requiring a majority vote by residents before those areas can be redesignated and rezoned for development.

The project site is in the Agricultural Exclusive 40-acre minimum lot size zone (AE-40 ac) and has an Agricultural General Plan land use designation. The purpose of this zone and designation is to preserve and protect commercial agricultural lands as a limited and irreplaceable resource, to preserve and maintain agriculture as a major industry in Ventura County and to protect these areas from the encroachment of nonrelated uses which, by their nature, would have detrimental effects upon the agricultural industry. GP Land Use Designations Goals and Policies §3.2.1(4) and NCZO §8104-1.2.

As an affordable farmworker housing project, the proposed project is an allowed use under the AE-40 designation. As discussed on page 4.10-14 of the Draft EIR:

> SOAR also identifies that farmworker housing is a compatible use within the Agricultural designation. Section 1 (Findings and Purposes) (J) states:

> The purpose of this initiative is to continue ensure that Agricultural and Open Space lands are not prematurely or unnecessarily converted to other more intensive development uses incompatible with the purpose of the Agricultural, Open Space and Rural land use designations. Thus, this initiative seeks to further Agricultural, Open Space and Rural objectives, which could include, for example, adequate farm worker housing.

> There are several exemptions in SOAR related to the construction of farmworker housing, which would authorize the Board of Supervisors, without a vote of the people, to process an application to redesignate lands that are designated Agricultural (see SOAR Section 2[g]). However, this provision in SOAR cannot be applied to the proposed project since a Farmworker Housing Complex is a use that is consistent with both the General Plan and the NCZO and does not require a redesignation.

As such, the proposed project is consistent with the intent of the SOAR Ordinance.

Response 9.27

The commenter cites Section 5, Severability, of the SOAR Ordinance, which relates to the intent of the SOAR Ordinance to protect and promote agricultural, open space, and rural lands, and prevent urban sprawl. The commenter states the cited text precludes the proposed project because the project is urban in nature.

Please refer to Response 9.26. As noted therein, as an affordable farmworker housing project, the proposed project is an allowed use under the AE-40 designation.

Response 9.28

The commenter states that the Draft EIR does not explain why an 18-acre site is needed and asks whether a five or 10-acre site would accomplish the same as an 18-acre site.

As discussed on page 2-19 of the Draft EIR, the objectives of the proposed project are as follows:

1. Develop a financially viable affordable residential community for lower-income farmworkers and their families in Ventura County to accommodate broad market needs.
2. Provide affordable housing units for farmworkers that will help meet the identified need assigned to Ventura County pursuant to California State Law and adopted in the County's Housing Element.
3. Support the local agricultural industry by providing local farmworker housing proximate to agricultural operations in Ventura County.
4. Provide a variety of apartment sizes to meet various family sizes.
5. Arrange the proposed apartment buildings and on-site amenities in a manner that is logical and promotes efficient use of the housing complex property.
6. Provide recreational opportunities for future project residents with on-site play fields, tot lots/playgrounds, active recreation opportunities, a community garden area, meeting rooms, and a network of meandering pedestrian walkways.
7. Minimize proposed building footprints and other impervious surfaces to accommodate on-site landscaped common space for future project residents.
8. Design an efficient internal circulation system that is safe for pedestrians and bicyclists.

9. Locate affordable housing in a location that provides convenient access to nearby services such as library, schools, commercial centers, and religious institutions.
10. Develop the project site in a manner that would not adversely affect neighboring land uses or infrastructure, including with regard to:
    - Water and sanitation services;
    - Land use compatibility; and
    - The scale of the project.
11. Develop the project site in a manner that would minimize affects from neighboring land uses to the proposed housing complex and future project residents.
12. Avoid modification to the existing Bell Ranch residences and agricultural buildings.

The proposed project has been designed to maximize the available space on the project site and meet the above objectives. Reducing the size of the project site to five or 10 acres would require a reduction in affordable housing units and/or elimination of on-site amenities and, therefore, would not meet the basic objectives of the project. In addition, the size of the project is the minimum required for the project to be economically viable. The Draft EIR includes a discussion of a reduced unit alternative under Section 6.3, *Alternatives Considered but Rejected.* As detailed in Section 6.3 of the Draft EIR, reducing the number of units was found to not be feasible. Because the proposed housing complex would require fixed-cost water utility infrastructure upgrades and a package community wastewater treatment facility, reducing the number of units would make the project economically infeasible for the non-profit project proponent. Financial feasibility studies indicate that a 360-unit complex is minimally viable. Therefore, a project with fewer units was rejected from further consideration.

Response 9.29

The commenter asks how the Draft EIR justifies the proposed project's consistency with the Guidelines for Orderly Development. Specifically, the commenter cites the definition of "urban development" in the Guidelines as the need for a new community sewer system.

A community wastewater treatment facility is not defined as a sewer system. The wastewater treatment facility collects and treats the wastewater generated on-site and does not require the extension of existing sewer system. The proposed treatment facility is designed to serve the project site and would not offer services outside of the project boundary.

Please see Response 9.22 for a discussion of the project's consistency with the Guidelines for Orderly Development.

Response 9.30

The commenter re-cites the SOAR Ordinance language from Comment 9.26. The commenter states the Draft EIR ignores this section of the SOAR Ordinance. The commenter again states that the proposed project constitutes an "urban" development due to its residential building density.

Please refer to Response 9.26. As noted therein, as an affordable farmworker housing project, the proposed project is an allowed use under the AE-40 designation.

Response 9.31

The commenter cites the definition of urban development in the Guidelines for Orderly Development as including any development requiring the establishment of a new community sewer system. The commenter states the proposed project does not meet the intent of the Guidelines for Orderly Development because it includes a sewer treatment facility.

Please refer to Responses 9.22 and 9.29.

Response 9.32

The commenter states that the project's location one mile from a bus stop does not appear to be consistent with SCAG's intent regarding High Quality Transit Areas.

In addition to Cross County Limited Route 77 which is located one mile from the project site and is discussed under Impact T-4 in Section 4.7.2.2 of the Draft EIR, a bus stop is located 1/3 mile from the project site in the City of Camarillo. The bus stop is located along Fieldgate Drive at the Camarillo Public Library and serves the Camarillo Area Transit line. Based upon a review of Google maps, this bus stop would be approximately a 7-minute walk from the project site via Somis Rod, Las Posas Road, and Fieldgate Drive and would therefore be easily accessible to residents of the project site.

In response to this comment, the analysis under Impact T-4 on page 4.7-11 of the Final EIR was revised as follows:

> The project site is located approximately 1 mile southwest of the Somis stop on the Cross Country Limited (Route 77) Ventura County Transportation Commission (VCTC) bus service line. The project site is also located approximately 1/3 mile west of the Camarillo Public Library stop on the Camarillo Area Transit bus service line. The project would provide affordable farmworker housing that would improve the jobs-housing match, shortening commutes to and from the agricultural portions of the County. As a result, the project would not directly affect the Somis stop or the Camarillo Public Library stop. Additionally, some farmworkers may use bus service but not in sufficient numbers to overburden these two lines. Therefore, the project would result in a less than significant impact to bus transit facilities.

Additionally, the following text on page 4.7-12 in Section 4.7.2.3, Cumulative Impacts, was revised in the Final EIR as follows:

> In addition, the project would provide affordable farmworker housing that would improve the jobs-housing match, shortening commutes to and from the agricultural portions of the County. As a result, the project would not directly affect the Somis stop or the Camarillo Public Library stop. Additionally, some farmworkers may use bus service but not in sufficient numbers to overburden these two lines.

The text under the RTP/SCS strategy "Focus New Growth Around Transit" in Table 4.11-1 on page 4.11-5 of the Final EIR was revised as follows:

> **Consistent.** The project site is not located in an HQTA; however, the 2016-2040 RTP/SCS assumes that 54 percent of new housing developed between 2012 and 2040 will occur outside of HQTAs. The proposed project is strategically located to provide affordable housing to local farmworkers so that they are able to live in close proximity to agricultural fields, which would reduce VMT and associated GHG emissions. Furthermore, the project site is approximately one

mile south of the Somis Road/Rice Street stop for Ventura County Transportation Commission Route 77, which provides express bus service between Simi Valley and Ventura and includes stops at key transit hubs including the Camarillo Metrolink station. Additionally, the project site is located approximately 1/3 mile west of the Camarillo Public Library stop on the Camarillo Area Transit bus service line, which provides bus service throughout the City of Camarillo.

The text under the RTP/SCS strategy "Transit" in Table 4.11-1 on page 4.11-6 of the Final EIR was revised as follows:

Consistent. The 2016-2040 RTP/SCS does not identify any specific locally notable transit capital projects or capital investment packages for Ventura County. However, the project site is approximately one mile south of the Somis Road/Rice Street stop for Ventura County Transportation Commission Route 77, which provides express bus service between Simi Valley and Ventura and includes stops at key transit hubs including the Camarillo Metrolink station. Additionally, the project site is located approximately 1/3 mile west of the Camarillo Public Library stop on the Camarillo Area Transit bus service line, which provides bus service throughout the City of Camarillo. Therefore, residents would have the opportunity to use public transit.

The text under the RTP/SCS strategy "Focus Growth Near Destinations & Mobility Options" in Table 4.11-2 on page 4.11-7 and 4.11-8 of the Final EIR was revised as follows:

Consistent. The proposed project is strategically located to provide affordable housing to local farmworkers so that they are able to live in close proximity to agricultural fields, which reduces VMT and associated GHG emissions. In addition, the project site is within 0.25 mile of local-serving retail and restaurants, the Camarillo Public Library, Rancho Campana High School, and agricultural fields. The project also includes an on-site network of meandering pedestrian walkways, approximately 379 bicycle parking spaces, and recreational amenities including community centers, play fields, tot lots/playgrounds, a basketball court, and a community garden area. The project would connect to existing sidewalks along the southbound lane of Somis Road, and the project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road. Furthermore, the project site is approximately one mile south of the Somis Road/Rice Street stop for Ventura County Transportation Commission Route 77, which provides express bus service between Simi Valley and Ventura and includes stops at key transit hubs including the Camarillo Metrolink station. The project site is also located approximately 1/3 mile west of the Camarillo Public Library stop on the Camarillo Area Transit bus service line, which provides bus service throughout the City of Camarillo. Therefore, the project would focus growth near destinations and mobility options.

These changes are not "significant new information" because they do not identify a new avoidable significant effect, do not show a substantial increase in the severity of an environmental impact, do not identify a feasible project alternative or mitigation measure considerably different from others previously analyzed, and the revisions do not involve a change to mitigation measures that were proposed in the Draft EIR. In addition, the proposed revisions are minor changes to the EIR that merely clarifies, amplifies, or makes insignificant modifications to the document.

Response 9.33

The commenter asks why there is not currently a connection to the existing sidewalk from the frontage of Somis Road in the City of Camarillo.

The lack of an existing sidewalk along the frontage of Somis Road that connects to the existing sidewalk within the City of Camarillo (which terminates along Somis Road just north of Las Posas Road) is not within the scope of the project or the EIR to address. However, the project would provide a connection from the project site to the existing sidewalk along the southbound lane of Somis Road. This connection would provide sidewalk access to residents from the project site to the sidewalks within the City of Camarillo.

Response 9.34

The commenter states that the nearest bus stop is located a mile from the project site and that there are no sidewalks connecting the project site to the bus stop.

Refer to Response 9.32. The nearest bus stop is located 1/3 from the project site at the Camarillo Public Library and would be connected to the project site by sidewalks along Somis Road, Las Posas Road, and Fieldgate Drive. This bus stop is approximately a 7-minute walk from the project site would be easily accessible to residents of the project site.

Response 9.35

The commenter states that the project appears inconsistent with the SCAG 2016 RTP/SCS investment in maintenance of regionally significant local streets and roads because the proposed project is not located on a significant local street or road.

The commenter is incorrect; according to SCAG's 2020 Transportation System – Highways and Arterials Technical Report,[5] SR 34 is a regionally significant arterial street. In addition, the active transportation goals and policies in Table 4.11-1 of the Draft EIR are a summary of SCAG's goals and policies. As stated on pages 4.11-5 and 4.11-6 in Section 4.10, *Land Use and Planning,* of the Draft EIR, the project is consistent with SCAG's overarching goal of promoting active transportation. The project would achieve this goal by providing an on-site network of meandering pedestrian walkways and approximately 379 bicycle parking spaces. The project would connect to existing sidewalks along the southbound lane of Somis Road, and the project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road. Therefore, walking or bicycling would be viable modes of transportation to reach numerous destinations. As such, the project is consistent with SCAG's goal of promoting active transportation.

Response 9.36

The commenter asks whether the proposed electric vehicle charging station would be free to project residents.

At this time, the project applicant does not know whether the proposed electric vehicle charging station would be free to project residents. The comment does not contain any substantive comments or questions about the environmental analysis or conclusions contained in the Draft EIR.

Response 9.37

The commenter questions whether the project is consistent with SCAG's goal to "Promote a Green Region." Specifically, the commenter is questioning how the project is consistent with the goal to

[5] Southern California Association of Governments (SCAG). 2020. Transportation System – Highways and Arterials Technical Report. Adopted May 7, 2020. Available online: https://www.connectsocal.org/Documents/Adopted/fConnectSoCal_Highways-And-Arterials.pdf

"reduce consumption of resource areas, including agriculture" since the project would develop 18.5 acres of farmland.

As stated in the Draft EIR, the project is consistent with SCAG's overarching goal of promoting a green region. As summarized in Table 4.11-2 of the Draft EIR/EIS, SCAG's RTP/SCS includes multiple goals and policies aimed at achieving this overarching goal, only one of which includes reducing consumption of resource areas, including agricultural land. Other goals listed in Table 4.11-2 include projects that improve community resilience to climate change and natural hazards; support of renewable energy; and resource efficient development focused on conservation, recycling, and reclamation. A project does not have to achieve every aspect of a goal or policy in order to be consistent with the overarching goal or policy of the RTP/SCS. The project would be developed on agricultural land, but is consistent with the specific goals for promoting a green region related to climate change, renewable energy, conservation, recycling, and reclamation. The project would be consistent with the current County General Plan and the Draft 2040 General Plan, which includes the County's draft Climate Action Plan (see Table 4.11-3 and Table 4.11-4, respectively). In addition, the project would be constructed in accordance with the 2019 CALGreen code and 2019 Building Energy Efficiency Standards. CALGreen requires implementation of energy-efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2019 Building Energy Efficiency Standards requires newly constructed buildings to meet energy efficiency performance standards. The project would also include the construction of a community wastewater treatment facility (CWWTF), which would serve the proposed housing complex and produce recycled water for irrigation of adjacent agricultural fields, which would help reduce the usage of potable water and/or groundwater needed to water such fields. Although the project would result in significant and unavoidable impacts to Important Farmland, the project's design includes clustering of the housing complex features to the extent feasible and preservation of 17.93 acres of agricultural land on-site. Therefore, the project's impacts to agricultural land would be reduced to the maximum extent possible. Therefore, the project would promote a "green" region.

Response 9.38

The commenter states that analysis of the project's consistency with the Ventura County 2040 General Plan policy CTM-2.3 in Table 4.11-4 states that the project's access points onto Somis Road would be built to County standards, but these access points are under the authority of Caltrans and not the County.

Table 4.11-4 contains an analysis of project consistency with the Draft Ventura County 2040 General Plan; therefore, only compliance with County standards is referenced. However, the commenter is correct that Caltrans standards would also need to be met. As stated in Section 4.7.2.2, the project access connections to Somis Road would be designed in compliance with both County of Ventura and Caltrans design standards. As noted in Response 5.6, the County acknowledges that the project may require a permit from the Caltrans' Office of Permits for any right of way improvements. This permit has been added to Table 2-3, Required Approvals, on page 2-20 of the Final EIR. This revision does not affect the Draft EIR conclusions.

Response 9.39

The commenter states that the Draft EIR does not discuss that the project is providing rideshare programs, bus turnouts, or any form of transit subsidies as discussed in the Ventura County 2040 General Plan policy CTM-2.27.

Policy CTM-2.27 states that the County shall require discretionary development to be subject to permit conditions of approval, where feasible, to minimize traffic impacts by incorporating pedestrian and bicycle pathways, bicycle racks and lockers, ridesharing programs, transit improvements (bus turnouts, shelters, benches), and/or transit subsidies for employees or residents of the proposed development. The County requires conditions of approval based on the features that are feasible for each individual project. A project does not have to include each type of conditions of approval outlined in CTM-2.27 to be consistent with the overarching policy of minimizing traffic impacts to be consistent with the policy.

The project includes an on-site network of meandering pedestrian walkways and approximately 379 bicycle parking spaces. The project would connect to existing sidewalks along the southbound lane of Somis Road, and the project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road. The project includes active transportation improvements and would not result in significant transportation impacts; therefore the project is consistent with the policy of minimizing traffic impacts. As detailed in Section 3.7, *Transportation*, of the Draft EIR, the project would not result in significant, unavoidable transportation impacts. Therefore, no additional conditions of approval are required to reduce project impacts to less than significant.

Response 9.40

The commenter asks how clustering of the housing complex discourages the conversion of lands currently used for agriculture.

As noted on page 4.11-13 of the Draft EIR:

> As discussed in Section 4.2, *Agricultural Resources – Soils*, of this EIR, the project would result in significant and unavoidable impacts to Important Farmland. However, the project's design includes clustering of the housing complex features to the extent feasible and, therefore, the project's impacts to agricultural land would be reduced to the maximum extent possible.

The project's clustering of the housing complex would minimize the project's impacts to agricultural land on the project site by maximizing the remaining agricultural parcel size.

Response 9.41

The commenter states the Draft EIR does not explain how the project would impact the Somis Union School District and the Oxnard Union High School District. The commenter also states Water District 19 would need to construct approximately one mile of water pipeline from the Somis neighborhood to accommodate the proposed project. The commenter also states Draft EIR does not sufficiently address the impacts of the water line extension.

Potential impacts to the Somis Union School District and Oxnard Union High School District are addressed on page 4.11-16 of the Draft EIR. As noted therein, "Additional demand to public services would be offset by the payment of property taxes, as well as school fees pursuant to Section 65996 of the California Government Code. The project would not include or require the need for new or expanded public service facilities or schools and, therefore, no associated environmental impacts would occur."

Per the Somis Union School District comment letter included herein as Letter 3, the Somis Union School District currently has capacity to accommodate up to 100 students. This existing capacity would cover the first phase of the proposed project's buildout. School fees paid by the project would fund infrastructure upgrades to create capacity for subsequent buildout. According to Section

65996 of the California Government Code, development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation."

The commenter is correct about the need for a water line extension. The following text has been added to Section 2, *Project Description,* and Section 4.11, *Less Than Significant Environmental Effects*, of the Draft EIR (pages 2-11 and 4.11-17, respectively):

> In order to connect the project site to existing Water District pipeline infrastructure, the proposed project includes approximately 0.8 mile of underground water pipeline extension between an existing water pipeline main located under SR 34 northwest of the project site. Pipeline extension construction would occur as part of Phase 1 of project construction and would occur in the previously disturbed, paved roadway. Pipeline extension construction would be conducted by the Water District, following Water District BMPs and protocols. Upon completion of construction, the roadway surface would be restored to existing conditions.

The change to the Draft EIR is not "significant new information" because it does not identify a new avoidable significant effect, show a substantial increase in the severity of an environmental impact, identify a feasible project alternative or mitigation measure considerably different from others previously analyzed, or involve a change to mitigation measures that were proposed in the Draft EIR. In addition, the proposed revision is a minor change to the EIR that merely clarifies, amplifies, or makes insignificant modifications to the document.

Response 9.42

The commenter requests clarification on whether the estimated population of 1,215 residents would consist of new residents to the area or farmworkers already residing in the area. The commenter states the text in the Draft EIR is confusing.

The proposed project is anticipated to serve farmworkers already residing in Ventura County. The project would primarily redistribute residents currently living in Ventura County. For clarification, the text on page 5-1 of the Draft EIR is revised as follows:

> ~~As determined by the Southern California Association of Governments (SCAG), the January 2020 population of unincorporated Ventura County is 102,000 and the population growth forecast is 113,600 in 2040 (SCAG 2016), for an increase of 11,600 persons over the next 20 years. The estimated 1,215 residents from the proposed project represents 11 percent of the estimated population increase in the area through 2040.~~
>
> The project is intended to provide housing for current farmworkers rather than induce people to move to Ventura County. The project would provide affordable housing for local farmworkers and their families, who likely currently live and work in Ventura County. Therefore, the project's population could be accommodated within the unincorporated Ventura County growth projections. Impacts associated with population increase from the proposed project would be less than significant.

The change to the Draft EIR is not "significant new information" because it does not identify a new avoidable significant effect, show a substantial increase in the severity of an environmental impact, identify a feasible project alternative or mitigation measure considerably different from others previously analyzed, or involve a change to mitigation measures that were proposed in the Draft EIR. In addition, the proposed revision is a minor change to the EIR that merely clarifies, amplifies, or makes insignificant modifications to the document.

Response 9.43

The commenter disagrees with the statement in the Draft EIR that the project site is currently served by existing infrastructure. The commenter states the project site is not served by Water Works District 19, electric, telephone, or cable services, and that these services would need to be extended to the project site. The commenter also states there is a discussion in the Draft EIR that the CWWTF has the potential to expand. The commenter asks whether the proposed project is a precursor for more development. The commenter expresses the opinion that the project would establish a precedent for other farmworker housing projects throughout the AE Zone.

As noted on page 5-2 of the Draft EIR:

> The project site is located in an area that is served by existing infrastructure. The Ventura County Water Works District No. 19 (Water District) would provide potable water to the proposed housing complex. The project site is currently located within the Water District's service area. The housing complex, including the CWWTF, would require electrical service, which would be provided by Southern California Edison. Cable and telephone service would be provided to the housing complex by Spectrum. No natural gas service would be provided to or required by the housing complex. Applicable utility agencies/companies have indicated the ability to serve the proposed project, with the exception of wastewater (sewage) disposal. Minor improvements to water, electrical, cable, and telephone infrastructure could be needed, but would be sized to specifically serve the proposed project.

As discussed above, the Draft EIR acknowledges minor improvements to water, electrical, cable, and telephone infrastructure could be needed to accommodate the proposed project. Please see Response 9.41 for a discussion of Water District pipeline expansion.

The Draft EIR analyzes the maximum proposed buildout of the CWWTF. As noted on page 5-2 of the Draft EIR:

> Although the proposed CWWTF would be built to the capacity to only serve the project, in the future, like any infrastructure facility, the CWWTF could be expanded to accommodate additional future growth in the vicinity of the project site. Any future expansion would require approvals from the County, the Los Angeles Regional Water Quality Control Board (RWQCB), and the California State Water Resources Control Board (SWRCB), as discussed in Section 2.7, *Required Approvals*, of this EIR. Such approvals would be discretionary and subject to CEQA review. Any future expansion of the CWWTF would presumably be sized to meet any future expansion of the on-site housing complex (beyond 360 units), which would also be discretionary and subject to CEQA. Based on these facts, any growth inducing impacts due to the removal of obstacles to growth would not be significant.

As discussed above, any future CWWTF capacity expansions or growth in the project area would be discretionary and would be subject to CEQA.

The proposed project would not induce development of other farmworker housing projects throughout Ventura County. The project is consistent with both the General Plan and the NCZO, as farmworker housing is currently a compatible use within agricultural lands. As such, neither a General Plan Amendment nor a rezoning is required. Farmworker housing projects are already considered compatible uses on other agricultural lands throughout Ventura County. Consequently, implementation of the proposed project would not affect other agricultural properties within Ventura County.

Response 9.44

The commenter states page 5-3 of the Draft EIR incorrectly characterizes the project site as "mostly undeveloped." The commenter states the project site is developed as agricultural production land, which is developed for the purpose of growing food and fiber product.

The commenter's point is noted. The text on the following pages has been revised in the Final EIR to clarify existing agricultural use conditions at the project site.

Page 4.8-1:

> The project site is currently ~~undeveloped~~ in agricultural production and used for growing row crops. No biosolids are currently generated or stored on-site.

Page 4.9-3:

> The project site is currently ~~undeveloped~~ in agricultural production and used for growing row crops.

Page 5-3:

> The proposed project would include development on a portion of ~~a mostly undeveloped project~~ an agricultural site in unincorporated Ventura County.

These changes to the Final EIR are not "significant new information" because they do not identify a new avoidable significant effect, show a substantial increase in the severity of an environmental impact, identify a feasible project alternative or mitigation measure considerably different from others previously analyzed, or involve a change to mitigation measures that were proposed in the Draft EIR. In addition, the proposed revisions are minor changes to the EIR that merely clarify, amplify, or make insignificant modifications to the document.

Response 9.45

The commenter asks why the project alternatives identified in the Draft EIR need to meet most of the basic objectives of the project. The commenter states that there is no discussion regarding a reduced unit alternative. The commenter asks why financial considerations are included in the alternatives analysis.

As noted on page 6-1 of the Draft EIR (bold emphasis added here for the purpose of highlighting relevant text):

> CEQA Guidelines Section 15126.6 states, "[a]n EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, **which would feasibly attain most of the basic objectives of the project** but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. **An EIR is not required to consider alternatives which are infeasible**."

As noted in CEQA Guidelines Section 15126.6, an EIR should evaluate alternatives that would feasibly attain most of the basic objectives of the project. As required by CEQA, the Draft EIR identifies potential alternatives to the project, evaluates the potential impacts of each alternative, and compares the potential impacts of each alternative against the proposed Project's impacts. The

range of alternatives required in an EIR is governed by the "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR needs to examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.

The Draft EIR includes a discussion of a reduced unit alternative under Section 6.3, *Alternatives Considered but Rejected.* As detailed in Section 6.3 of the Draft EIR, the reduced unit alternative was found to not be feasible. Because the proposed housing complex would require fixed-cost water utility infrastructure upgrades and a package community wastewater treatment facility, reducing the number of units would make the project economically infeasible for the non-profit project proponent. Financial feasibility studies indicate that a 360-unit complex is minimally viable. In addition, a reduced unit alternative would be similar to the Reduced Footprint Alternative (Alternative 2) analyzed in the Draft EIR with regard to reducing potential impacts to Agricultural Resources and Air Quality, but not Biological Resources because the eastern driveway would still be required for this alternative. Therefore, such an alternative was rejected from further consideration.

Pursuant to the requirements of CEQA, the range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent) (State CEQA Guidelines Section 15126.6(f)(1)). As stated in State CEQA Guidelines Section 15126.6(f)(1), it is appropriate for the Draft EIR to consider financial considerations in the alternatives analysis.

Response 9.46

The commenter states that the reduced footprint alternative (Alternative 2) only reduces the project's footprint by 1.72 acres and does not include the area needed for meeting the NPDES requirements. The commenter notes that Alternative 2 would increase the dwelling unit density to 21.45 dwelling units per acre, which would exceed the County's NCZO for high density designation.

As noted in CEQA Guidelines Section 15126.6, an EIR should evaluate alternatives that would avoid or substantially lessen any of the significant effects of the project. The reduced footprint alternative would reduce impacts related to construction emissions, farmlands, operational noise, and stormwater runoff. The reduced footprint alternative would be reduced by 1.72 acres compared to the proposed project through the removal of the basketball court, multiple play fields, or community garden. The size of the land required for this alternative is based on the required area needed for construction of 360 dwelling units. It is not feasible to reduce this alternative further because reducing the number of units would make the project economically infeasible for the non-profit project proponent. Financial feasibility studies indicate that a 360-unit complex is minimally viable.

As shown in Figure 6-1 of the Draft EIR, there is space in the northern portion of the project site where stormwater detention basins could be constructed. If selected, Alternative 2 would be required by the County to comply with all NPDES requirements. A stormwater plan would be required to be developed for this alternative, and BMPs incorporated into the project design. If it were determined that detention basins were not feasible, then compliance could be achieved through incorporation of alternative BMPs into the project design.

Alternative 2 would construct 360 units on a 16.71-acre parcel. The density of Alternative 2 would be 21.54 units/acre. As noted in the comment, the density of Alternative 2 would exceed the allowable density of 20 units/acre for the NCZO for high density designation. However, Article 16 of the Ventura County NCZO and Government Code Section 65915 requires the County to provide incentives for affordable housing projects. Because Alternative 2 would be 100 percent affordable, Alternative 2 would be eligible for a density bonus pursuant to Article 16 of the Ventura County NCZO. The project is requesting an increase in maximum building lot coverage from five percent as established in Figure 3.4 of the Ventura County General Plan Goals, Policies, and Programs to twenty five percent. With the density bonus for affordable housing, Alternative 2 would not exceed the allowable density as established by the NCZO.

Response 9.47

The commenter states the Alternate Site Location discussion on page 6-11 of the Draft EIR does not address placement of the proposed project on a site near Oxnard, Santa Paula, Fillmore, or Saticoy. The commenter states there is no evidence to support the statement in the Draft EIR that "no other known available parcels with the necessary attributes to meet the project objectives."

The Draft EIR examines a range of reasonable alternatives to the proposed project. CEQA does not require an EIR to evaluate every conceivable alternative to a project. As noted on page 6-1 of the Draft EIR:

> CEQA Guidelines Section 15126.6 states, "[a]n EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation."

In addition, the analysis of alternatives to the proposed project focuses on whether any of the significant effects of the proposed project would be avoided or substantially lessened by moving the project to another location. As noted on page 6-11 of the Draft EIR:

> Section 15126.6(f)(2) of the CEQA Guidelines addresses alternative locations for a project. The key question and first step in the analysis is whether any of the significant effects of the proposed project would be avoided or substantially lessened by putting the proposed project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR. Further, CEQA Guidelines Section 15126.6(f)(1) lists several factors that may be taken into account when addressing feasibility of alternatives (any alternative, not just alternative locations) and states, "No one of these factors establishes a fixed limit on the scope of reasonable alternatives." The site has been selected in accordance with Project Objective 3, providing local farmworker housing proximate to agricultural operations in Ventura County, and Project Objective 9, convenient access to nearby services such as a library, schools, commercial centers, and religious institutions. There are no other known available parcels with the necessary attributes to meet project objectives. Development of the proposed project on an alternative agricultural site in Ventura County would likely result in similar environmental impacts that have been identified for the proposed project. As an alternative site with similar environmental characteristics in

> Ventura County with a willing seller was not found, no further environmental analysis for an alternative site was conducted.

The Draft EIR identifies and evaluates a range of potentially feasible alternatives.

Response 9.48

The commenter claims the discussion of growth inducing impacts in the Draft EIR does not address the potential for the project to be replicated within AE zoned property throughout Ventura County.

Please see Response 9.43. As discussed therein, the project is consistent with both the General Plan and the NCZO, as farmworker housing is currently a compatible use within agricultural lands. As such, neither a General Plan Amendment nor a rezoning is required. Farmworker housing projects are already considered compatible uses on other agricultural lands throughout Ventura County. Although the project would not preclude future similar farmworker housing developments, it does not involve any discretionary approvals that would increase the potential for such developments.

Response 9.49

The commenter states that the Draft EIR does not expand on the County's General Plan Goal 4.4.1-1 and Policies 4.4.2-1, 3, 4, and 5 as they relate to the proposed project.

The Draft EIR describes the County's General Plan Goal 4.4.1-1 and Policies 4.4.2-1, 3, and 5, on page 4.10-7. The Draft EIR evaluates the proposed project's consistency with this goal and these policies on page 4.10-16 as follows:

> The proposed CWWTF would "ensure the provision of adequate individual…sewage/waste collection, treatment, and disposal facilities meet…current and future needs in a manner which [would] protect the natural environment and ensure protection of the public's health, safety, and welfare" (Goal 4.4.1-1) because the project would be in compliance with applicable federal, state, and local health and safety requirements for the handling, storage, transportation, and disposal of hazardous materials, as discussed under Impact PH-1. The project would be consistent with the applicable General Plan goals and policies, as discussed throughout Section 4 of this EIR (Policy 4.4.2-1). The project would include a CWWTF in accordance with the County Sewer Policy and County Building Code (Policy 4.4.2-2). The project would also comply with Policy 4.4.2-3 because the housing complex would utilize water-conserving design features. As discussed throughout this EIR, the CWWTF would not result in significant impacts (Policy 4.4.2-5).

General Plan Policy 4.4.2-4 states "*Discretionary development* adjacent to existing and proposed waste treatment, transfer and disposal sites, as identified in the Countywide Integrated Waste Management Plan, shall not conflict with the current and anticipated future use of these waste facilities." This policy is not applicable to the proposed project because the project site is not adjacent to existing or proposed waste treatment or transfer and disposal sites identified in the Countywide Integrated Waste Management Plan.

Response 9.50

The commenter states the Draft EIR does not address potential impacts to the Somis School District and that only a school development fee would be paid.

Potential impacts to the Somis Union School District and Oxnard Union High School District are addressed on page 4.11-16 of the Draft EIR. As noted therein, "Additional demand to public services would be offset by the payment of property taxes, as well as school fees pursuant to Section 65996 of the California Government Code. The project would not include or require the need for new or expanded public service facilities or schools and, therefore, no associated environmental impacts would occur."

Please see Response 9.41. As noted therein, per the Somis Union School District comment letter included herein (Letter 3), the Somis Union School District currently has capacity to accommodate up to 100 students. This existing capacity would cover the first phase of the proposed project's buildout. School fees paid by the project would fund infrastructure upgrades to create capacity for subsequent buildout. According to Section 65996 of the California Government Code, development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation."

Response 9.51

The commenter states that the Draft EIR does not address potential impacts to the local fire station, Ventura County Station 57.

As noted on page 4.11-16 of the Draft EIR:

> The Ventura County Sheriff Department and Ventura County Fire Department would provide police, fire, and emergency medical services to the project site. Additionally, the project site would be served by Somis Union School District and Oxnard Union High School District. Additional demand to public services would be offset by the payment of property taxes, as well as school fees pursuant to Section 65996 of the California Government Code. The project would not include or require the need for new or expanded public service facilities or schools and, therefore, no associated environmental impacts would occur. Impacts to public services would be less than significant.

Consequently, the Draft EIR addresses potential impacts to fire services.

Response 9.52

The commenter states that the Draft EIR does not address potential light and glare impacts, specifically in relation to the adjacent Rancho Campana High School and as the project is viewed from Somis Road.

The following text has been added to page 4.11-1 of the Final EIR:

> <u>"The project site currently includes lighting from two on-site residences. The project would introduce new sources of light into the existing setting, including interior light that would be visible through the proposed building's windows, as well as exterior lighting, but this would not be significant. The proposed project would include building materials, such as windows that may create some glare, but this glare would be minimal and would be also be reduced by use of landscaping. Impacts related to light and glare would be less than significant."</u>

Specifically, the commenter mentions impacts related to Somis Road and Rancho Campana High School. Motorists viewing the site from Somis Road/SR 34 would be viewing the site for a short period of time. As stated in the text above glare would be minimal, and therefore Rancho Campana High School would not be exposed to glare impacts from the project. Lighting impacts would not

affect the school as the school is primarily used during the daytime, whereas lighting is most visible at night.

The change to the Draft EIR is not "significant new information" because it does not identify a new avoidable significant effect, show a substantial increase in the severity of an environmental impact, identify a feasible project alternative or mitigation measure considerably different from others previously analyzed, or involve a change to mitigation measures that were proposed in the Draft EIR. In addition, the proposed revision is a minor change to the EIR that merely clarifies, amplifies, or makes insignificant modifications to the document.

Response 9.53

The commenter states that the Draft EIR does not address potential impacts to existing water ratepayers within Water Works District No. 19 after project implementation.

The proposed project would not increase water rates for existing ratepayers in Water District No. 19's service area. The following text has been added to page 4.11-16 to 4.11-17 of the Final EIR to clarify potential impacts to water ratepayers:

- **Utilities/Service Systems.** The proposed housing complex would be served potable water by Ventura County Water Works District No. 19 (Water District). The project site is currently located within the Water District's service area and existing water supply pipelines and facilities are present in the project site vicinity. The Water District provided a letter stating that it has the ability to provide water to the housing complex (Water District 2019). <u>The proposed project would not increase water rates for existing ratepayers in Water District No. 19's service area. The project applicant would be responsible for paying the cost of extending the existing waterline to reach the project site and for the payment of additional impact fees to Water District No. 19. Impact fees are established to offset anticipated impacts resulting from the proposed project. In addition, the proposed project will introduce new ratepayers into the Water District No. 19 service area, which would spread fixed infrastructure costs across more households.</u>

The change to the Draft EIR is not "significant new information" because it does not identify a new avoidable significant effect, show a substantial increase in the severity of an environmental impact, identify a feasible project alternative or mitigation measure considerably different from others previously analyzed, or involve a change to mitigation measures that were proposed in the Draft EIR. In addition, the proposed revision is a minor change to the EIR that merely clarifies, amplifies, or makes insignificant modifications to the document.

Response 9.54

The commenter first references the fifth paragraph of the Background section in Draft EIR Appendix B, Preliminary On-Site Wastewater Treatment System Design Report. The commenter states this is the first reference to a "community wastewater package treatment plant." The commenter also references previous Comment 9.31, which pertains to the need for a community sewer treatment plant and the definition of urban development under the Guidelines for Orderly Development.

The proposed CWWTF is described in detail in Section 2, *Project Description*, of the Draft EIR and is analyzed throughout the document. As described on pages 2-15 to 2-16 of the Draft EIR:

> Because the project site is outside the Camarillo Sanitary District service area, the project includes on-site wastewater treatment. The housing complex would include the construction

> and operation of a CWWTF on an approximately 5,000- to 7,000-square-foot area in the northwest corner of the project site. The proposed CWWTF would include a conventional membrane bioreactor package with a footprint of approximately 1,488 square feet.[2] The CWWTF would be designed to treat wastewater (sewage) generated by the housing complex to tertiary treatment standards. The on-site CWWTF would treat all wastewater generated by the housing complex. At full occupancy of the housing complex, the CWWTF would treat an estimated average daily flow of 99,000 gallons of wastewater per day (Water Resource Engineering Associates [WREA] 2019).
>
> [Footnote 2: The proposed CWWTF is an MEMPAC-M model, such as those manufactured by Cloacina in Arroyo Grande, California.]

Please see Response 9.31. As discussed therein, farmworker housing is an allowed use under the AE-40 designation. As such, the proposed project does not constitute urban development.

Response 9.55

The commenter references the sixth paragraph of the Background section in Draft EIR Appendix B, Preliminary On-Site Wastewater Treatment System Design Report, which notes that Water Resources Engineering Associates (WREA) met with Los Angeles Regional Water Quality Control Board (RWQCB) staff to discuss the project's use of recycled water as agricultural irrigation water. The commenter states that there is no identification of the position taken by Los Angeles RWQCB or whether the proposed project's CWWTF is acceptable to the Los Angeles RWQCB.

As identified in Table 2-3, Required Approvals/Permits, on page 2-20 of the Draft EIR, the proposed project would require Water Reclamation Requirement (WRR) and waste discharge requirements (WDR) permits and approval to construct from the Los Angeles RWQCB. The "beneficial reuse" of the recycled water for agricultural irrigation requires a WRR and an "approval to construct" from Los Angeles RWQCB. The application for approval includes, but is not limited to, system plans and calculations, percolation test results showing soils suitability for subsurface dispersal, demonstration that dispersal field meets setback requirements, and information regarding the water supply system. As a requirement of the WDR, a designated site supervisor would be responsible for the maintenance of the CWWTF and including sampling and analytical procedures for reporting for proper treatment system performance. The CWWTF owner is required to retain the services of a Certified Operator to perform the overall management of the CWWTF.

The Draft EIR sufficiently addresses the role of the Los Angeles RWQCB in approving the proposed project's use of recycled water as agricultural irrigation water.

Response 9.56

The commenter references the last paragraph of the Background section in Draft EIR Appendix B, Preliminary On-Site Wastewater Treatment System Design Report, which mentions a contractual agreement with Ventura Regional Sanitation District. The commenter asks whether this contract has been accomplished yet and whether it is part of the public record.

The Ventura Regional Sanitation District's proposal for the operation and maintenance of the CWWTF has been added to the Final EIR as Appendix M. The project applicant would be required to demonstrate a finalized contract with the Ventura Regional Sanitation District as a condition of approval.

Response 9.57

The commenter references page 3 of Draft EIR Appendix B, Preliminary On-Site Wastewater Treatment System Design Report, which describes the seepage pit dispersal system and states that "the actual number of pits and configuration will be determined through the effort of final engineering design phase." The commenter asks whether this would require the reduction of the NPDES basin on the west side of the project to allow for additional seepage pits.

The NPDES basin on the west side of the project site would not need to be reduced to allow for additional seepage pits. The dispersal expansion area is identified to provide more space for seepage pits if needed upon final design. In addition, as noted in Appendix I, Hydrology Report, of the Draft EIR: "Detention volumes for the site were determined using the County's Small Area Detention Calculator. The calculator is conservative and typically results in much larger volumes than required in final design of large projects." The proposed project would be required to comply with applicable sizing criteria to meet the applicable minimum detention volumes. According to Appendix I: "The minimum required volumes for the western basin serving most of Phase 1 and the eastern basin serving most of Phases 2 & 3 are approximately 10,300 CF and 27,900 CF, respectively."

Response 9.58

The commenter references page 4 of Draft EIR Appendix B, Preliminary On-Site Wastewater Treatment System Design Report, which describes recycled water use for agricultural irrigation and states that "offsite private easements may be required for irrigation distribution piping." The commenter asks what would happen if these easements are not secured.

The proposed CWWTF would be located adjacent to existing easements currently used to access irrigation wells and agricultural lands. As such, easements have already been secured to accommodate recycled water delivery for off-site agricultural irrigation. If off-site recycled water flows are stopped or impeded for any reason, the proposed seepage pits are designed to accommodate 100 percent of the wastewater effluent produced at the CWWTF.

Response 9.59

The commenter references page 6 of Draft EIR Appendix B, Preliminary On-Site Wastewater Treatment System Design Report, which describes wastewater generation quantities. The commenter asks how much of the wastewater generated by the proposed project is expected to be converted to recycled water. The commenter asks if the adjacent agricultural property has the capacity to accept the amount of recycled water.

All the wastewater generated by the proposed project would be treated at the CWWTF. It is anticipated that up to 100 percent of the estimated 99,000 gallons per day of wastewater generated by the project could be converted into recycled water. The owner of the adjacent agricultural property has indicated he/she has capacity to accept all of the recycled water produced by the CWWTF at full occupancy. Nevertheless, the seepage pits would be conservatively designed to accommodate up to 100 percent of the recycled water produced by the CWWTF.

Response 9.60

The commenter references Attachment I of Draft EIR Appendix B, Preliminary On-Site Wastewater Treatment System Design Report, which contains a Conceptual Onsite Wastewater Treatment Plan Site Plan and Dispersal Plan. The commenter states that the plan shows a dispersal expansion area

along the north property line, the purpose of which is not identified in the Draft EIR. The commenter asks if this area is intended to provide more seepage pits or disperse excess recycled water.

The dispersal expansion area is identified to provide more space for seepage pits if needed upon final design.

Response 9.61

The commenter states the area adjacent to the high school is depicted on Figure 3 as unpaved and asks whether this is correct.

The area directly adjacent to the high school is an unpaved landscaped strip.

Response 9.62

In reference to Draft EIR Appendix H, Traffic Study, the commenter states the figures on pages 8 and 9 are not readable.

The illegible figures were due to the inadvertently incorrect printing (and PDFing) of the Traffic Study. Such issues have been resolved in the Traffic Study (see Appendix H).

Response 9.63

The commenter references the bottom of page 11 of the Draft EIR Appendix H, Traffic Study, which notes that "if the project involves County General Plan land use designation changes, zone changes or intensification of use, such that the projects impacts could not have been anticipated… additional cumulative impact analysis and mitigation measures may be required at the discretion of the Director, County PWA - Transportation Department." The commenter asks if such additional analysis and/or mitigation measures would be required.

The Draft EIR adequately analyzes potential transportation impacts associated with implementation of the proposed project. Cumulative transportation impacts are analyzed on pages 4.7-12 and 4.7-13 of the Draft EIR. As noted therein:

> Thus, the project would yield a daily VMT per capita of approximately 12 percent less than the Ventura County 2040 average of 20.2 miles per capita per day. In addition, this reduction does not account for the fact that the project is an affordable housing project and is therefore presumed to have a less than significant impact, and cumulative VMT impacts would be less than significant.

The Draft EIR also concludes that cumulative impacts related to the safety of roads, as well as pedestrian, bicycle, and bus transit facilities would be less than significant.

As such, the proposed project would not trigger additional cumulative impact analysis or mitigation measures beyond those identified in the Draft EIR.

Response 9.64

The commenter references Table 6, Project Trip Generation, in the Draft EIR Appendix H, Traffic Study, which identifies an AM peak hour trip count of 167 trips in/out and a PM peak hour trip count of 202 trips in/out. The commenter asks if the AM and PM peak hour trip counts should be closer to 360, if the proposed project's units are occupied by at least one farmworker each.

As described in the Traffic Study, trip generation estimates were calculated for the proposed project based on the rates presented in the Institute of Transportation Engineers (ITE) Trip Generation

Manual, 10th Edition. The analysis relies on rates provided for multi-family land uses (land use code #220). The traffic study follows County of Ventura guidelines and was reviewed and approved by County staff. Use of ITE Trip Generation rates is standard industry practice and is used for traffic impact studies within Ventura County. As outlined in the Traffic Impact Study Scope of Work Procedures (County of Ventura, Public Works Agency, Transportation Department; February 10, 2009), the latest edition of the ITE Trip Generation Manual is an accepted source of trip generation rates for use within traffic studies.

Response 9.65

The commenter references Figure 5, Project Trip Generation, in the Draft EIR Appendix H, Traffic Study. The commenter states the amount of distribution percentages only adds to 82 percent and asks where the remaining 12 percent would go.

Please see Response 1.13.

Response 9.66

In reference to Draft EIR Appendix H, Traffic Study, the commenter states the figures on pages 18, 20, and 22 are not readable.

The illegible figures were due to the inadvertently incorrect printing (and PDFing) of the Traffic Study. Such issues have been resolved in the Traffic Study (see Appendix H).

Response 9.67

The commenter references the signal warrants discussion on pages 27 and 28 of the Draft EIR Appendix H, Traffic Study, which concludes that a signal is not warranted because the project would generate fewer trips per day than the required threshold of 850 trips per day. The commenter states that this analysis does not consider trips generated by surrounding properties using Bell Ranch Road.

The traffic analysis takes into account existing trips from surrounding development, as well as anticipated trips generated from future development. As discussed on pages 5 and 7 of the Traffic Study, included in Appendix H of the Draft EIR, average daily traffic on study area roadways were obtained from Caltrans and Ventura County and peak hour traffic volumes at study area intersections were collected in March and November 2019. This traffic data was used to establish the existing condition, and accounts for existing trips from surrounding development. For the signal warrant analysis summarized in Table 15 of the Traffic Study, traffic warrants are not satisfied in the existing condition (which accounts for existing trips from surrounding development, in the existing plus project condition (which accounts for existing trips from surrounding development plus trips from the proposed project), or in the cumulative plus project condition (which accounts for existing trips from surrounding development plus trips from the proposed project plus trips from anticipated future developments). Therefore, the signal warrant analysis accounts for trips generated by surrounding properties.

Response 9.68

In reference to Draft EIR Appendix H, Traffic Study, the commenter states that page 28 concludes that a northbound and southbound Somis Road left turn lanes and right turn lanes are warranted. The commenter asks whether this is a correct statement.

The commenter is correct. Please refer to Response 9.1.

Response 9.69

In reference to Draft EIR Appendix H, Traffic Study, the commenter states Figure 10 on page 30 is not readable.

The illegible figures were due to the inadvertently incorrect printing (and PDFing) of the Traffic Study. Such issues have been resolved in the Traffic Study (see Appendix H).

Response 9.70

The commenter references the safe routes to school discussion on page 31 of the Draft EIR Appendix H, Traffic Study. The commenter states that there is no discussion of a safe route to Somis Elementary School.

The project applicant has been coordinating with the Somis Union School District to extend bus route service from the Somis Elementary School to the project site. Additionally, a school bus turnaround has added to the site plan to facilitate school bus access to and from the project site. The school bus turnaround is shown in revised Figure 2-3b, *Housing Complex Site Plan*, of the Final EIR. The expanded bus service to the project site would allow for a safe route to the Somis Elementary School.

Response 9.71

In reference to the General Plan consistency analysis in the Draft EIR, the commenter questions whether General Plan policy CTM-1.5-3 for projects with unacceptable Level of Service (LOS) is applicable to the project.

As stated under policy CTM-1.5-3 on page 4.10-9 of the Draft EIR, Farmworker Housing Complexes and other housing exclusively for lower-income households are exempt from the requirements of policy CTM-1.5-3. Therefore, this policy does not apply to the proposed project. In addition, as noted in the Draft EIR Appendix H, Traffic Study, under the existing plus project or cumulative plus project scenario, no analyzed intersections would operate at unacceptable LOS.

Response 9.72

The commenter states that the project is estimated to require 33,600 cubic yards of imported soil and that there is no discussion in the Draft EIR regarding what impacts this may have on Somis Road. The commenter asks where this imported soil will come from and whether this amount of soil will create a dust impact to surrounding uses.

Please refer to Response 1.5 above regarding imported soil. Impact AQ-1 in Section 4.1, *Air Quality*, includes a discussion of fugitive dust impacts. The source of imported soil has yet to be determined; however, the soil would likely be local. As stated therein, "[f]ugitive dust control measures are required by VCAPCD Rule 55. Such measures include securing tarps over truck loads, removing vehicle track-out using PM_{10} efficient sweepers, and watering bulk material to minimize fugitive dust." These measures would ensure a less than significant impact.

Letter 10

Daphne Virlar-Knight

From: Bertoline, Justin <Justin.Bertoline@ventura.org>
Sent: Thursday, November 5, 2020 3:28 PM
To: Amanda Antonelli; Melissa Whittemore
Cc: Fogg, Mindy
Subject: [EXT] FW:

Here's another.

Justin Bertoline | Senior Planner
Commercial & Industrial Permits Section
justin.bertoline@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2466 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at **vcrma.org/planning**
For online permits and property information, visit **VC Citizen Access**

From: Tom Woods <[redacted]>
Sent: Thursday, November 5, 2020 3:23 PM
To: Bertoline, Justin <Justin.Bertoline@ventura.org>
Subject:

Hello this is Thomas Woods I live right across the street from the library 2290 Avenida San Antero I read something about the sewage plant is going to have open pits with stagnant water in it that will attract mosquitoes and smell why is that not inside of a building my wife has health problems and I have a heart condition and diabetes that sounds like a health concern for all of us older people in the 57 homes where I live

10.1

Letter 10

COMMENTER: Tom Woods

DATE: November 5, 2020

Response 10.1

The commenter states concerns regarding the WWTF. Specific concerns relate to potential adverse health effects due to odor and air pollution.

It appears this email was sent pre-maturely, as the content is incomplete and expanded upon in Letter 11. Please see Response 11.1.

Letter 11

Daphne Virlar-Knight

From: Bertoline, Justin <Justin.Bertoline@ventura.org>
Sent: Thursday, November 5, 2020 4:18 PM
To: Amanda Antonelli; Melissa Whittemore
Cc: Fogg, Mindy
Subject: [EXT] FW:

This one seems to piggyback on the previous comment from Mr. Woods.

Justin Bertoline | Senior Planner
Commercial & Industrial Permits Section
justin.bertoline@ventura.org

Ventura County Resource Management Agency | Planning Division
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800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
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From: Tom Woods <[redacted]>
Sent: Thursday, November 5, 2020 3:35 PM
To: Bertoline, Justin <Justin.Bertoline@ventura.org>
Subject:

Hello my name is Thomas Woods I live right across the street from the library 2290 Avenida San Antero I read that the sewage plant at the somis farm working housing project will have open pits with waste water in it and this will attract mosquitoes and have a horrible smell why are these pits not inside a building to negate this problem this is a health problem for anybody in the immediate area my wife has breathing problems and I have a heart condition and diabetes I am worried about the health concerns 4 all of us in the 57 homes where I live which is predominantly older people please respond to my email since I was not able to voice my concerns at the library meeting for this project because of the pandemic the library meeting was canceled and I am not good on Zoom or any of those other media features I also wonder why this project is so big when the project like this in Piru is only 100 units and this one is 360 units

11.1

11.2

Letter 11

COMMENTER: Tom Woods

DATE: November 5, 2020

Response 11.1

The commenter lives near the project site and states concerns regarding the CWWTF. The commenter states that he heard the project would have open pits with wastewater, and expresses concerns related to mosquitoes, odor, and public health.

Please refer to Section 4.6, *Public Health*, in the Draft EIR. The proposed project's seepage pits would be located entirely underground and, therefore, would not provide a vector-related public health hazard (e.g., mosquito breeding habitat). Seepage pits are typically used for septic tank systems, which provide basic treatment for domestic wastewater flows. The project's CWWTF would provide a higher level of treatment than is typically offered by septic systems before discharging treated effluent to the seepage pits in the dispersal field. The CWWTF design, including seepage pit design, would be subject to review and approval from the County of Ventura Environmental Health Division and the CWWTF would be constructed in conformance with applicable building codes and construction practices. Public health impacts would be less than significant.

Please refer to page 4.1-18 of the Draft EIR for a discussion of odor impacts. As described therein:

> The primary source of odors associated with wastewater treatment plants is hydrogen sulfide (H_2S), which produces an odor similar to rotten eggs (Baranksi 2017).[6] For the CWWTF, a vent port is supplied on the Anoxic Chamber for connection to an air scrubber that would incorporate advanced odor control technology. Air scrubbers would provide two stage chemistry for the control of odors from hydrogen sulfide (H_2S), mercaptans, ammonia, amines, and other odors generated in wastewater collection and treatment systems. The proposed treatment system is designed to achieve an H_2S reduction of 99 percent and would also remove a majority of volatile mercaptans, organic amines, and organic sulfurs. By removing these substances from vented air, this system would remove the primary contributors to odorous air, thereby minimizing the potential for objectionable odors to be released (Baranski 2017).[7] With incorporation of these project design features, odors would not generate an objectionable odor to a degree that would cause injury, detriment, nuisance, or annoyance to a considerable number of persons or to the public, or that would endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. In addition, solid waste generated by the proposed on-site uses would be collected by a contracted waste hauler, ensuring that any odors resulting from on-site waste would be managed and collected in a manner to prevent the proliferation of odors. Operational odor impacts would be less than significant.

Response 11.2

The commenter questions the size of the project and notes that a similar project in Piru is only 100 units.

[6] Reference cited in Draft EIR, not in this Responses to Comments document.
[7] Ibid

The Draft EIR includes a discussion of a reduced unit alternative under Section 6.3, *Alternatives Considered but Rejected.* As detailed in Section 6.3 of the Draft EIR, reducing the number of units was found to not be feasible. Because the proposed housing complex would require fixed-cost water utility infrastructure upgrades and a package community wastewater treatment facility, reducing the number of units would make the project economically infeasible for the non-profit project proponent. Financial feasibility studies indicate that a 360-unit complex is minimally viable. Therefore, a project with fewer units was rejected from further consideration.

Letter 12

Amanda Antonelli

From: Bertoline, Justin <Justin.Bertoline@ventura.org>
Sent: Thursday, November 5, 2020 5:16 PM
To: Amanda Antonelli; Melissa Whittemore
Cc: Fogg, Mindy
Subject: [EXT] FW: comments on DEIR re "Somis Farmworker Housing Project"

Here's another.

Justin Bertoline | Senior Planner
Commercial & Industrial Permits Section
justin.bertoline@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2466 | F. (805) 654-2509
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From: [redacted]
Sent: Thursday, November 5, 2020 5:10 PM
To: Bertoline, Justin <Justin.Bertoline@ventura.org>
Subject: comments on DEIR re "Somis Farmworker Housing Project"

Dear Mr. Bertoline:

Please find below a few comments I'd like to submit regarding the above-mentioned DEIR.

1. Project Description: The very name of the project, its purpose and project description all purport the project to be "Farmworker" Housing, and yet there appears to be essentially no evidence, much less any analysis, within the DEIR of whether or not the project in fact has anything to do with its actually being and remaining housing for farmworkers. Where is there any discussion of, or analysis demonstrating, any actual and specific commitment whatsoever to the project's actually being housing for farmworkers? Where in the DEIR is there any discussion or analysis of farmworker-related criteria for residency? Or of deed restrictions going out into the future pertaining to same? What percentage of the 360 units, if any, will actually be REQUIRED to be occupied by farmworkers? None? Some? (If so, how many specifically?) All? Or is this project really something else and not a farmworker housing project at all but rather something that should have from the outset been more accurately described as an "affordable" or "lower income" housing project ? 12.1

2. Some areas in which I believe the analysis of Impacts remains way too inadequate and will require more analysis because are NOT "less than significant" as is being claimed in the DEIR:

A. Community Character (as pertains to the community of Somis) This project at 360-unit density and 3-story height is WAY beyond anything appropriate to the historical and current community of Somis. 12.2

B. Somis School Capacity - This was acknowledged to be an area of controversy early w/in the DEIR itself, but then no further meaningful discussion or analysis of the issue appears w/in the DEIR. A 360-unit housing complex will be a HUGE added burden to the Somis school system. How much will this cost, CAN the school system even handle it, SHOULD the small Somis school system even appropriately be finding itself asked to try to handle it, and WHO will end up paying for it year-in and year-out into the future? 12.3

C. Transportation/Traffic - This has been inexplicably concluded to be a "less than significant" impact, but I must thoroughly disagree and find the discussion and analysis w/ in the DEIR itself to be inadequate and very likely simply wrong. I believe the DEIR states that the project "would not result in a substantial increase in VMT" but this, IMO makes absolutely no sense. A REAL farmworker housing project presumes the farmworkers are working on the same farm where they are also living or at least reasonably adjacent to. But THIS is a 360-unit high density housing project which, even if 100% for farmworkers (which I doubt--see above) the farmworkers would be working on farms far and wide, all over Ventura County, resulting in very substantial increases in VMT. 12.4

D. Consistency w/ SOAR and County General Plan - It has been disappointing to see that the only discussion and analysis of this issue to date has come from the project proponent's consultants & County Staff, but not yet from the SOAR Organization itself. Because this project is so potentially impactful as a precedent for Ventura County, I believe the environmental analysis to be inherently incomplete and inadequate until the SOAR Organization itself has weighed in on the subject. 12.5

E. Future Impacts and Costs on Existing Waterworks District 19 Ratepayers that this project will likely result in - I believe this question has not yet been sufficiently disclosed, discussed and analyzed (w/ regard to both water capacity and also future water rate increases), and thereby the future impacts upon currently existing ratepayers are still being unacceptably downplayed &/or ignored in the DEIR. 12.6

3. Mitigation - The (long-overdue) creation of an Official Greenbelt for Somis and Las Posas Valley - In the event this project, or some version of it, does go through as anything even close to what's currently proposed with regard to its size and scale, the risks and impacts to the Community of Somis/Las Posas Valley will be considerable (e.g. the above re school capacity, District 19 capacity and water rates, Community Character of Somis, traffic, and much more---for which I don't have sufficient time here but had previously mentioned in earlier comments on the NOP--such as continued loss of adjacent farmland to the point that Camarillo threatens to blend into and ultimately overtake the community of Somis). A potential greenbelt for Somis and Las Posas Valley have for too long been on the books while never yet receiving sufficiently serious consideration. SOAR might seem to some to be a near-equivalent of having established an official greenbelt, but it is not quite the same thing and the establishment of a more formal greenbelt agreement at this time would, I submit, serve to make a stronger and more protective "statement" about the intended future preservation of Somis and the Las Posas Valley. (A Belt-and-Suspenders approach, as it were.) In any event, I believe the EIR for this project should include discussion and analysis of this subject (a formal greenbelt agreement starting now), which I believe is also vastly pertinent to the very future viability and sustainability of agriculture itself throughout all of Ventura County. 12.7

4. Alternatives - There should be more analysis of where within the cities a high-density housing project such as this could instead be placed. There is SO MUCH languishing, wasted acreage currently being underutilized within so many of the cities of Ventura County that it is actually almost ludicrous for a project of this urban-type density and height to be considered as even remotely appropriate for the limited infrastructure and low densities of such a small rural/agricultural community. Is there REALLY no such piece of appropriate land currently available w/in any of the cities? Did the DEIR ever go through the exercise of determining whether or not there ARE any potential alternative sites within any of the cities? 12.8 And, as a second alternative to also consider, I believe the EIR should be required to analyze annexation of the project (if it's to remain in the location that's currently proposed) by the City of Camarillo, which just simply makes better sense whether with regard to infrastructure or just common sense. 12.9

Thank you for the opportunity to comment.

Sincerely,

Patricia Feiner Arkin

Letter 12

COMMENTER: Patricia Feiner Arkin

DATE: November 5, 2020

Response 12.1

The commenter states concern that the proposed project would not actually be dedicated farmworker housing and would instead be general affordable or lower income housing. The commenter asks what percentage of the 360 units would be required to be occupied by farmworkers. The comments asks where the Draft EIR addresses criteria for residency.

In the Draft EIR, Section 2.5.1.5, *Requirements and Verification Processes for Residences*, describes the farmworker housing verification process. As described on page 2-14 of the Draft EIR:

> Section 8107-41.1 of the Ventura County NCZO provides the farmworker employment criteria and states:
>
> > In a Farmworker Housing Complex, dwelling units shall only be rented to… persons who are principally employed within the County of Ventura for activities associated with Crop and Orchard production (Sec. 8105-4) and all uses listed there under. A qualified farmworker who has been renting a dwelling unit in a Farmworker Housing Complex and who subsequently retires or becomes disabled, may continue to reside in the dwelling unit. Members of the farmworker's household, if any, may also occupy said dwelling unit.
>
> Accordingly, to qualify for an apartment in the proposed housing complex, potential residents would be required to demonstrate that they either: (1) earn at least 51 percent of their annual income from qualifying agriculture; and/or (2) are employed in agriculture for at least 51 percent of the total days employed on an annual basis.
>
> The development would be managed by a qualified affordable housing provider that would be responsible for verifying resident incomes initially and annually.

Response 12.2

The commenter states the 360-unit density and 3-story height is inappropriate for the historical and current community character of Somis.

Please see Response 1.1. As noted therein, the project is generally consistent with the relevant provisions of the Community Design Element. Nevertheless, the commenter's opposition to the project is noted and will be provided to County decision makers for their consideration.

Response 12.3

The commenter states concerns related to impacts to the Somis school system. Specifically, the commenter asks whether the Somis school system can accommodate the proposed project and asks who will pay for needed school improvements.

Please refer to Response 3.1.

Response 12.4

The commenter states concerns related to Transportation impacts. The commenter disagrees with the finding in the Draft EIR that VMT impacts would be less than significant.

Please refer to Response 9.13.

Response 12.5

The commenter states an opinion that the environmental analysis is incomplete until the SOAR organization weighs in on the project.

Please see Responses 9.25 and 9.26 for a discussion of the project's consistency with SOAR.

Response 12.6

The commenter states concerns related to future impacts and costs on existing Waterworks District No. 19 ratepayers.

Please refer to Response 9.53.

Response 12.7

The commenter states an opinion that a formal greenbelt agreement for Somis and Los Posas Valley should be considered in the Draft EIR as mitigation.

The commenter's suggested mitigation is not feasible and is outside the County and project applicant's ability to accomplish. Therefore, the proposed project's significant and unavoidable impacts related to Important Farmland would remain. In addition, farmworker housing is an allowed use in the AE-40 designation.

Response 12.8

The commenter states the Draft EIR should analyze alternative locations in the cities of Ventura County. The commenter asks whether the Draft EIR went through the exercise of identifying other alternative sites in nearby cities.

Please refer to Response 9.47.

Response 12.9

The commenter states the Draft EIR should analyze annexation of the project site by the City of Camarillo. The commenter states an opinion that annexation would make sense with regard to infrastructure.

The Draft EIR considers the project that is proposed, which does not include annexation. The project's utility infrastructure needs can be met without annexation.

3 Revisions to the Draft EIR

This chapter presents specific text changes made to the Draft EIR since its publication and public review. The changes are presented in the order in which they appear in the original Draft EIR and are identified by the Draft EIR page number. Text deletions are shown in ~~strikethrough~~, and text additions are shown in underline. The information contained within this chapter clarifies and expands on information in the Draft EIR and does not constitute "significant new information" requiring recirculation. (See Public Resources Code Section 21092.1; CEQA Guidelines Section 15088.5.)

Executive Summary

Page ES-4:

> Alternative 2 (Reduced Footprint) would generate impacts similar to or reduced in comparison to the proposed project. Nevertheless, this alternative would not avoid the project's significant and unavoidable impacts to agricultural resources, as development of a housing complex would still result in the loss ~~require the conversion~~ of Prime Farmland and Farmland of Statewide Importance ~~to nonagricultural use~~. After the No Project Alternative, Alternative 2 would be considered the environmentally superior alternative.

Page ES-7, Table ES-1 (revised row only):

Impact	Mitigation Measure(s)	Residual Impact
Agricultural Resources – Soils		
Impact AG-1. The project would result in the direct loss of 18.2 acres of Prime Farmland or Farmland of Statewide Importance ~~to nonagricultural use~~. No feasible mitigation is available to reduce this impact to a less than significant level; therefore, the impact due to loss of Prime Farmland and Farmland of Statewide Importance soils would be significant and unavoidable.	There is no feasible mitigation currently available.	Significant and unavoidable

Pages ES-7 and -8, Table ES-1 (revised row only):

Impact	Mitigation Measure(s)	Residual Impact
Biological Resources		
Impact BIO-3. Impacts to potentially jurisdictional waters/wetlands within the biological study area would be significant.	**BIO-3. Jurisdictional Waters Mitigation Plan.** The project applicant shall restore herbaceous wetland communities temporarily impacted by project activities, including Giant Scouring Rush and Bermuda Grass – Italian Wild Rye plant communities, at a minimum 1:1 mitigation to impact ratio (estimated at 0.08 ~~0.09~~ acre total based on current design). The project applicant	Less than significant

Impact	Mitigation Measure(s)	Residual Impact
	shall contract with a County-approved qualified biologist to prepare a Mitigation Plan that must include restoring these impacted communities occurring in the wetland features within the construction footprint. Planting palettes shall approximate existing species composition, except that non-native species such as Bermuda grass shall not be planted. The Mitigation Plan shall include, but not be limited to, the following components:	

Page ES-10, Table ES-1 (revised row only):

Impact	Mitigation Measure(s)	Residual Impact
Transportation		
Impact T-2. The project would ~~not modify or otherwise impact the design of any public roads or intersections~~ improve the intersection at the southern entrance to the project site to safely accommodate the proposed project. Therefore, this impact would be less than significant.	None required	Less than significant

Section 2.5 Project Characteristics

Figure 2-3b, Housing Complex Site Plan, on page 2-9 of the Draft EIR has been updated as shown at the end of this section on page 3-9.

Page 2-11 (Section 2.5.1.2, *Vehicular Access and Parking*):

The housing complex would be accessible from two driveways from Somis Road. The southern driveway would be located within an existing 40-foot-wide easement ~~over a road built by others~~ that provides access to the City's Desalter Facility site. A portion of this road would be built by the City of Camarillo for access to the City's Desalter Facility site. The proposed project would include additional improvements to the road. The southern driveway would include a bicycle/pedestrian pathway. The eastern driveway would follow a proposed 50-foot-wide easement north of the existing Bell Ranch residences and agricultural buildings and would provide access to the housing complex from the east. The eastern driveway would be constructed as part of the proposed project and would include an off-site portion of the driveway to connect the housing complex to Somis Road.

In addition, the project would implement roadway improvements to SR 34 as recommended by the Traffic Study (Appendix H) to safely accommodate the proposed project. Roadway improvements would include an acceleration and deceleration lane as well as a left turn pocket within the existing SR 34 right-of-way. Roadway improvement plans would be subject to Caltrans review and approval.

Page 2-11 (Section 2.5.1.3, *Utilities*):

The housing complex would be served potable water by Ventura County Water Works District No. 19 (Water District). The project site is currently located in the Water District's service area.

On May 8, 2019, the County of Ventura issued a Water Availability Letter for the proposed project, confirming the availability of water supplies from the Water District. In order to connect the project site to existing Water District pipeline infrastructure, the proposed project includes approximately 0.8 mile of underground water pipeline extension between an existing water pipeline main located under SR 34 northwest of the project site. Pipeline extension construction would occur as part of Phase 1 of project construction and would occur in the previously disturbed, paved roadway. Pipeline extension construction would be conducted by the Water District, following Water District BMPs and protocols. Upon completion of construction, the roadway surface would be restored to existing conditions.

Page 2-12:

Any walls or fences would be designed to be consistent with the City's Community Design Element.

Page 2-17:

Construction activities for Phases 1, 2, and 3 would require a total of approximately 1,500 cubic yards (cy) of cut soil and 35,100 cy of fill soil, resulting in the import of approximately 33,600 cy of soil to the project site. No soil export would be necessary. Roads used for soil haul trips would primarily include Highway 101 and SR 34. Construction staging and construction work parking would occur on the project site.

Section 2.7 Required Approvals

Page 2-20, Table 2-3 (revised rows only):

Agency	Approval/Permit Type
California Department of Transportation (Caltrans)	Review and approval of roadway improvement plan to SR 34
	Transportation permit for oversized construction transport vehicles
	Construction Traffic Management Plan (CTMP) if construction traffic would cause delays on State facilities
	Encroachment permit (if required by the Office of Permits)
Ventura County Air Pollution Control District (VCAPCD)	Authority to Construct and Permit to Operate may be required for the CWWTF. Applicant would check in with the APCD's Engineering Division for a screening to determine if air permits are needed prior to installation and construction of equipment.

Section 4.1 Air Quality

Page 4.1-5:

Table 4.1-2 Ambient Air Quality at the ~~Mira Loma Van Buren~~ Rio Mesa Monitoring Station

Section 4.2 Agricultural Resources – Soils

Page 4.2-6:

IMPACT AG-1 THE PROJECT WOULD RESULT IN THE DIRECT LOSS OF 18.2 ACRES OF PRIME FARMLAND OR FARMLAND OF STATEWIDE IMPORTANCE~~ TO NONAGRICULTURAL USE~~. NO FEASIBLE MITIGATION IS AVAILABLE TO REDUCE THIS IMPACT TO A LESS THAN SIGNIFICANT LEVEL; THEREFORE, THE IMPACT DUE TO LOSS OF FARMLAND SOILS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

As previously described, the project site is predominantly used for agricultural production. As shown in Table 4.2-3, the proposed project would result in the direct loss of 18.2 acres of Prime Farmland or Farmland of Statewide Importance~~ to nonagricultural use~~, which exceeds the 5-acre significance threshold for impacts to Prime Farmland or Farmland of Statewide Importance (from Table 4.2-2). The project would include continuation agricultural crop production on a 17.93-acre continued agricultural use parcel on the project site. Nonetheless, because the proposed project would result in a loss of Farmland that exceeds the County's significance thresholds, the permanent and direct loss of Important Farmland soils would result in a significant impact.

Section 4.3 Biological Resources

Page 4.3-18:

BIO-3 Jurisdictional Waters Mitigation Plan

The project applicant shall restore herbaceous wetland communities temporarily impacted by project activities, including Giant Scouring Rush and Bermuda Grass – Italian Wild Rye plant communities, at a minimum 1:1 mitigation to impact ratio (estimated at 0.08 ~~0.09~~ acre total based on current design). The project applicant shall contract with a County-approved qualified biologist to prepare a Mitigation Plan that must include restoring these impacted communities occurring in the wetland features within the construction footprint. Planting palettes shall approximate existing species composition, except that non-native species such as Bermuda grass shall not be planted. The Mitigation Plan shall include, but not be limited to, the following components:

Section 4.5 Noise and Vibration

Page 4.5-10:

The Ventura County Construction Noise Threshold and Control Plan defines noise-sensitive receivers according to their typical sensitive time period. Residential uses are considered sensitive during the evening and nighttime hours (7:00 p.m. to 7:00 a.m.), while schools, churches, and libraries are considered sensitive during the daytime hours when in use (7:00 a.m. to 7:00 p.m.). Project construction would only occur during the daytime hours; therefore, no noise-sensitive residences would be exposed to construction noise. Over the course of a typical

construction day, construction equipment would be located as close as 350 feet to the nearest daytime noise-sensitive receiver structure at the Rancho Campana High School to the west. A conservative estimate of noise attenuation is that noise levels attenuate at 6 dBA per doubling distance; therefore, the noise level at the nearest structure Rancho Campana High School is estimated at 62.2 dBA L_{eq}.

Section 4.7 Transportation

Pages 4.7-10 to -11:

Threshold 1:	Would the project have an adverse, significant project-specific or cumulative impact to the safety and design of roads or intersections within the RRN or LRN?
Threshold 2:	Would the project if a private road or private access is proposed, will the design of the private road meet the adopted Private Road Guidelines and access standards of the VCFPD as listed in the Initial Study Assessment Guidelines?
Threshold 4:	Would the project involve a road or access, public or private, that complies with VCFPD adopted Private Road Guidelines?

IMPACT T-2 THE PROJECT WOULD ~~NOT MODIFY OR OTHERWISE IMPACT THE DESIGN OF ANY PUBLIC ROADS OR INTERSECTIONS~~ IMPROVE THE PUBLIC ROADWAY ENTRANCES TO THE PROJECT SITE TO SAFELY ACCOMMODATE THE PROPOSED PROJECT. DIRECT ACCESS TO THE PROJECT WILL BE PROVIDED VIA TWO ~~SHARED~~ ACCESS CONNECTIONS THAT WILL BE DESIGNED TO MEET THE COUNTY FIRE DEPARTMENT DESIGN STANDARDS TO PROVIDE EMERGENCY VEHICLES ACCESS. THEREFORE, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

~~The project would not modify or otherwise impact the design of any public roads or intersections.~~ Regional access to the project is provided by U.S. Highway 101 and State Route 118. Direct access to the project would be provided via two ~~shared~~ access connections to Somis Road (State Route 34). The southern entrance would be shared with the North Pleasant Valley Groundwater Desalter Facility. The City of Camarillo will construct a ~~new access connection to Somis Road and improve an existing connection to Somis Road~~ portion of the southern access road as part of the North Pleasant Valley Groundwater Desalter Facility, approximately 700 feet southwest of where the eastern driveway would intersect with Somis Road at a T-intersection. A shared access agreement allowing the project to utilize the two driveway connections has been established. The segment of Somis Road adjacent to the site access is relatively straight and level, providing good sight distance. The City of Camarillo and the project applicant will be required to construct the access connections to Somis Road to County of Ventura and Caltrans design standards. The two access connections to Somis Road will be designed to meet the County Fire Department design standards to provide emergency vehicles access.

In addition, the project would implement roadway improvements to SR 34 as recommended by the Traffic Study (Appendix H) to safely accommodate the proposed project. Roadway improvements would include an acceleration and deceleration lane as well as a left turn pocket within the existing SR 34 right-of-way. Proposed roadway improvement plans would comply with County Road Standards and would be subject to Caltrans review and approval. As such, the proposed project would not have an adverse, significant project-specific or cumulative impact to the safety and design of roads or intersections.

Therefore, the project would result in a less than significant impact associated with public roadway or intersection design and private access.

Page 4.7-11:

The project site is located approximately 1 mile southwest of the Somis stop on the Cross Country Limited (Route 77) Ventura County Transportation Commission (VCTC) bus service line. The project site is also located approximately 1/3 mile west of the Camarillo Public Library stop on the Camarillo Area Transit bus service line. The project would provide affordable farmworker housing that would improve the jobs-housing match, shortening commutes to and from the agricultural portions of the County. As a result, the project would not directly affect the Somis stop or the Camarillo Public Library stop. Additionally, some farmworkers may use bus service but not in sufficient numbers to overburden these two lines. Therefore, the project would result in a less than significant impact to bus transit facilities.

Pages 4.7-5 and 4.7-6, Table 4.11-1 (revised rows only):

Table 4.11-1 Project Consistency with Applicable SCAG 2016-2040 RTP/SCS Strategies

Reduction Strategy	Project Consistency
Land Use Actions and Strategies	
Focus New Growth Around Transit The 2016 RTP/SCS land use pattern reinforces the trend of focusing growth in the region's HQTAs. Concentrating housing and transit in conjunction concentrates roadway repair investments, leverages transit and active transportation investments, reduces regional life cycle infrastructure costs, improves accessibility, avoids greenfield development, and has the potential to improve public health and housing affordability. HQTAs provide households with alternative modes of transport that can reduce VMT and GHG emissions.	**Consistent.** The project site is not located in an HQTA; however, the 2016-2040 RTP/SCS assumes that 54 percent of new housing developed between 2012 and 2040 will occur outside of HQTAs. The proposed project is strategically located to provide affordable housing to local farmworkers so that they are able to live in close proximity to agricultural fields, which would reduce VMT and associated GHG emissions. Furthermore, the project site is approximately one mile south of the Somis Road/Rice Street stop for Ventura County Transportation Commission Route 77, which provides express bus service between Simi Valley and Ventura and includes stops at key transit hubs including the Camarillo Metrolink station. Additionally, the project site is located approximately 1/3 mile west of the Camarillo Public Library stop on the Camarillo Area Transit bus service line, which provides bus service throughout the City of Camarillo.
Transportation Strategies	
Transit Since 1991, the SCAG region has spent more than $50 billion dollars on public transportation. This includes high profile investments in rail transit and lower profile, vital investments in operations and maintenance. Looking toward to 2040, the 2016 RTP/SCS maintains a significant investment in public transportation across all transit modes and also calls for new household and employment growth to be targeted in areas that are well-served by public transportation to maximize the improvements called for in the Plan.	**Consistent.** The 2016-2040 RTP/SCS does not identify any specific locally notable transit capital projects or capital investment packages for Ventura County. However, the project site is approximately one mile south of the Somis Road/Rice Street stop for Ventura County Transportation Commission Route 77, which provides express bus service between Simi Valley and Ventura and includes stops at key transit hubs including the Camarillo Metrolink station. Additionally, the project site is located approximately 1/3 mile west of the Camarillo Public Library stop on the Camarillo Area Transit bus service line, which provides bus

Reduction Strategy	Project Consistency
	service throughout the City of Camarillo. Therefore, residents would have the opportunity to use public transit.

Page 4.11-7, Table 4.11-2 (revised row only):

Table 4.11-2 Project Consistency with Applicable SCAG 2020-2045 RTP/SCS Strategies

Reduction Strategy	Project Consistency
Focus Growth Near Destinations & Mobility Options. ▪ Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations ▪ Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets ▪ Plan for growth near transit investments and support implementation of first/last mile strategies ~~z~~ ▪ Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses ▪ Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods ▪ Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations) ▪ Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking)	**Consistent**. The proposed project is strategically located to provide affordable housing to local farmworkers so that they are able to live in close proximity to agricultural fields, which reduces VMT and associated GHG emissions. In addition, the project site is within 0.25 mile of local-serving retail and restaurants, the Camarillo Public Library, Rancho Campana High School, and agricultural fields. The project also includes an on-site network of meandering pedestrian walkways, approximately 379 bicycle parking spaces, and recreational amenities including community centers, play fields, tot lots/playgrounds, a basketball court, and a community garden area. The project would connect to existing sidewalks along the southbound lane of Somis Road, and the project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road. Furthermore, the project site is approximately one mile south of the Somis Road/Rice Street stop for Ventura County Transportation Commission Route 77, which provides express bus service between Simi Valley and Ventura and includes stops at key transit hubs including the Camarillo Metrolink station. The project site is also located approximately 1/3 mile west of the Camarillo Public Library stop on the Camarillo Area Transit bus service line, which provides bus service throughout the City of Camarillo. Therefore, the project would focus growth near destinations and mobility options.

Section 4.8 Waste Treatment and Disposal Facilities – Solid Waste

Page 4.8-1:

The analysis in this section is based in part on the Preliminary On-Site ~~Wafstewater~~ Wastewater Treatment System Design Report by WREA dated October 2019 (Appendix B).

Page 4.8-1:

The project site is currently ~~undeveloped~~ in agricultural production and used for growing row crops. No biosolids are currently generated or stored on-site.

Page 4.8-3:

The project site is located more than 200 feet from the closest existing Camarillo Sanitary District facilities and is outside both the Camarillo city limits and the Camarillo Sanitary District

limits. For these reasons, the ~~Camarillo Sanitary District on-site wastewater treatment~~ on-site CWWTF would be required for the proposed housing complex.

Page 4.8-3:

The CWWTF would not discharge effluent or solid waste into either the County or ~~City of Camarillo~~ Camarillo Sanitary District sewer systems.

Page 4.8-3:

Recycled water would be applied as irrigation water on adjacent agricultural lands. Excess treated wastewater effluent would be dispersed via underground seepage pits. Potential surface water quality impacts related to the proposed project's recycled water and seepage pits are analyzed in Section 4.10, *Water Resources – Surface Water Quality*. Potential groundwater quality impacts are discussed in Section 4.11, *Less Than Significant Environmental Effects*.

Section 4.9 Water Resources – Surface Water Quality

Page 4.9-3:

The project site is currently ~~undeveloped~~ in agricultural production and used for growing row crops.

Page 4.9-3:

Water quality impairments in the Calleguas Creek and its tributaries include ammonia, boron, copper, bacteria, nitrogen, nitrate, selenium, trash, toxicity, salts, and sulfate, as well as insecticides and pesticides such as dichloro-diphenyl-trichloroethane (DDT), dieldrin, and toxaphene.

Section 4.11 Less Than Significant Environmental Effects

Page 4.11-1:

The project site is not located in or near a Scenic Resource Area as depicted on the County's Resource Protection Map. Therefore, the project would not physically alter scenic resources and would not substantially obstruct, degrade, or obscure a scenic vista. No impact to scenic resources would occur. The project site currently includes lighting from two on-site residences. The project would introduce new sources of light into the existing setting, including interior light that would be visible through the proposed building's windows, as well as exterior lighting, but this would not be significant. The proposed project would include building materials, such as windows that may create some glare, but this glare would be minimal and would be also be reduced by use of landscaping. Impacts related to light and glare would be less than significant.

Page 4.11-15:

- **Hydrology/Water Quality.** According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06111C0932F, the project site is not located within a Special Flood Hazard Area (a 100-year floodplain) (FEMA 2015) and the proposed housing complex would be located outside the 500-year floodplain.

  As discussed in Section 4.9, *Water Resources – Surface Water Quality*, of this EIR, compliance with the NPDES *General Permit for Stormwater Discharges Associated with*

Construction and Land Disturbance Activities (*Construction General Permit*) (Order 2009-0009, as amended by Orders 2010-0014-DWQ and 2012-006-DWQ) Best Management Practices (BMPs) for stormwater control and/or a project-specific stormwater pollution prevention plan (SWPPP) would control and minimize erosion and siltation during project construction. Additionally, operation of the project would not directly or indirectly cause stormwater quality to exceed water quality objectives or standards in the applicable Ventura County Municipal Separate Storm Sewer System (MS4) Permit. Impacts due to potential erosion/siltation hazard and flooding hazard would be less than significant.

As also discussed in Section 4.9, *Water Resources – Surface Water Quality*, the Los Angeles RWQCB would regulate operation of the CWWTF. The CWWTF would be designed to treat wastewater generated on-site to meet Disinfected Tertiary Recycled Water requirements in accordance with California Code of Regulations (CCR) Title 22. Title 22 contains the highest water treatment standards for wastewater effluent. Recycled water produced by the proposed CWWTF is anticipated to be higher quality than the current groundwater quality. Excess recycled water and treated wastewater effluent not meeting Title 22 standards would be dispersed through a series of underground seepage pits, and would also be subject to Los Angeles RWCQB testing and regulation. As required by water discharge requirements and water reclamation requirements, pollutants in the recycled water would be tested daily, weekly, and/or monthly to ensure the discharge is meeting the TMDLs for pollutants established under the CWA to protect the beneficial uses of receiving waters, including the underlying groundwater basin. As such, recycled water applied as irrigation water and excess treated water directed to seepage pits would be subject to Los Angeles RWQCB regulation. With regulatory compliance, potential impacts to groundwater quality would be less than significant.

Pages 4.11-16 to -17:

- **Tribal Cultural Resources.** Under California Assembly Bill (AB) 52, lead agencies are required to consult with "California Native American tribe[s] that [are] traditionally and culturally affiliated with the geographic area of the proposed project." On June 30, 2020, the County sent an AB 52 consultation letter to Julie Tumamait-Stenslie of the Barbareño-Ventureño Band of Mission Indians (Appendix L). The consultation letter included project plans and an aerial map of the project site, and requested information regarding concerns or recommendations related to the proposed project. On July 1, 2020, Ms. Tumamait-Stenslie contacted the County to request formal consultation. Ms. Tumamait-Stenslie and the County met at the project site on December 17, 2020. Ms. Tumamait-Stenslie requested that the County include conditions for procedures to follow in the event of unanticipated discovery of cultural resources and monitoring of native soil disturbance by a Native American monitor. The County agreed to the request, which concluded ~~At the time of publication of this Draft EIR for public review,~~ formal AB 52 consultation ~~is currently underway~~. ~~Per AB 52, this consultation process must be completed before the Final EIR can be certified. The EIR will be updated, as appropriate, after AB 52 consultation is completed.~~
- **Utilities/Service Systems.** The proposed housing complex would be served potable water by Ventura County Water Works District No. 19 (Water District). The project site is currently located within the Water District's service area and existing water supply pipelines and facilities are present in the project site vicinity. The Water District provided a letter stating that it has the ability to provide water to the housing complex (Water District 2019). The proposed project would not increase water rates for existing ratepayers in Water District

No. 19's service area. The proposed project would be responsible for paying the cost of extending the existing waterline to reach the project site and for the payment of additional impact fees to Water District No. 19. Impact fees are established to offset anticipated impacts resulting from the proposed project. In addition, the proposed project will introduce new ratepayers into the Water District No. 19 service area, which would spread fixed infrastructure costs across more households.

In order to connect the project site to existing Water District pipeline infrastructure, the proposed project includes approximately 0.8 mile of underground water pipeline extension between an existing water pipeline main located under SR 34 northwest of the project site. Pipeline extension construction would occur as part of Phase 1 of project construction and would occur in the previously disturbed, paved roadway. Pipeline extension construction would be conducted by the Water District, following Water District BMPs and protocols. Upon completion of construction, the roadway surface would be restored to existing conditions.

Section 5.1 Growth Inducement

For clarification, the text on page 5-1 of the Draft EIR is revised as follows:

The proposed 360-unit housing complex would result in an estimated population of 1,1201~~1,215 (Jensen 2019). As determined by the Southern California Association of Governments (SCAG), the January 2020 population of unincorporated Ventura County is 102,000 and the population growth forecast is 113,600 in 2040 (SCAG 2016), for an increase of 11,600 persons over the next 20 years. The estimated 1,215 residents from the proposed project represents 11 percent of the estimated population increase in the area through 2040.~~

The project is intended to provide housing for current farmworkers rather than induce people to move to Ventura County. The project would provide affordable housing for local farmworkers and their families, who likely currently live and work in Ventura County. Therefore, the project's population could be accommodated within the unincorporated Ventura County growth projections. Impacts associated with population increase from the proposed project would be less than significant.

Section 5.2 Irreversible Environmental Effects

Page 5-3:

The proposed project would include development on a portion of ~~a mostly undeveloped project~~ an agricultural site in unincorporated Ventura County.

Section 6.1 Alternative 1: No Project Alternative

Page 6-3:

b. Agricultural Resources – Soils

Under the No Project Alternative, construction of the housing complex would not occur and no agricultural lands would be converted to nonagricultural uses. As described in Section 4.2, *Agricultural Resources – Soils*, the proposed project would result in the direct loss ~~conversion~~ of 18.2 acres of Prime Farmland or Farmland of Statewide Importance ~~to nonagricultural use~~, which exceeds the 5-acre significance threshold for impacts to Prime Farmland or Farmland of

Statewide Importance (see Table 4.2-2). Thus, the proposed project would result in significant and unavoidable impacts to agricultural resources.

Section 6.2 Alternative 2: Reduced Footprint

Page 6-7:

b. Agricultural Resources – Soils

Alternative 2 would result in the direct loss ~~conversion~~ of 17.01 acres of Prime Farmland or Farmland of Statewide Importance ~~to nonagricultural use~~. As described in Section 4.2, *Agricultural Resources – Soils*, the proposed project would result in the direct loss conversion of 18.2 acres of Prime Farmland or Farmland of Statewide Importance to nonagricultural use. Figure 6-2 shows the types of Important Farmland present on the project site, the development footprint of the proposed project, and the reduced development footprint of Alternative 2.

Alternative 2 would result in a loss of ~~convert~~ 1.72 fewer acres of Prime Farmland ~~to nonagricultural use~~. The impact would therefore be reduced. Nevertheless, Prime Farmland conversion under Alternative 2 would continue to exceed the 5-acre significance threshold for impacts to Prime Farmland or Farmland of Statewide Importance (see Table 4.2-2). Consequently, similar to the proposed project, Alternative 2 would result in a significant and unavoidable impact to agricultural resources.

Section 6.4 Environmentally Superior Alternative

Page 6-12:

As summarized in the *Executive Summary,* the proposed project would have no impact or a less than significant impact for the majority of environmental issues considered in this EIR. The proposed project would result in a significant and unavoidable impact to agricultural resources, as the development would result in the direct loss of 18.2 acres of Prime Farmland and Farmland of Statewide Importance ~~to nonagricultural use~~.

Page 6-13:

Alternative 2 (Reduced Footprint) would generate impacts similar to or reduced in comparison to the proposed project. Nevertheless, this alternative would not avoid the project's significant and unavoidable impacts to agricultural resources, as development of a housing complex would still result in the loss ~~require the conversion~~ of Prime Farmland and Farmland of Statewide Importance ~~to nonagricultural use~~. In addition, Mitigation Measure AQ-1 and Mitigation Measure BIO-3 would still be required. After the No Project Alternative, Alternative 2 would be considered the environmentally superior alternative because it would result in lesser environmental impacts related to agricultural resources, air quality, and surface water quality. However, only one of the two community centers included in the proposed project would be constructed under Alternative 2. Furthermore, Alternative 2 would not include the basketball court, multiple play fields, or community garden included in the proposed project.

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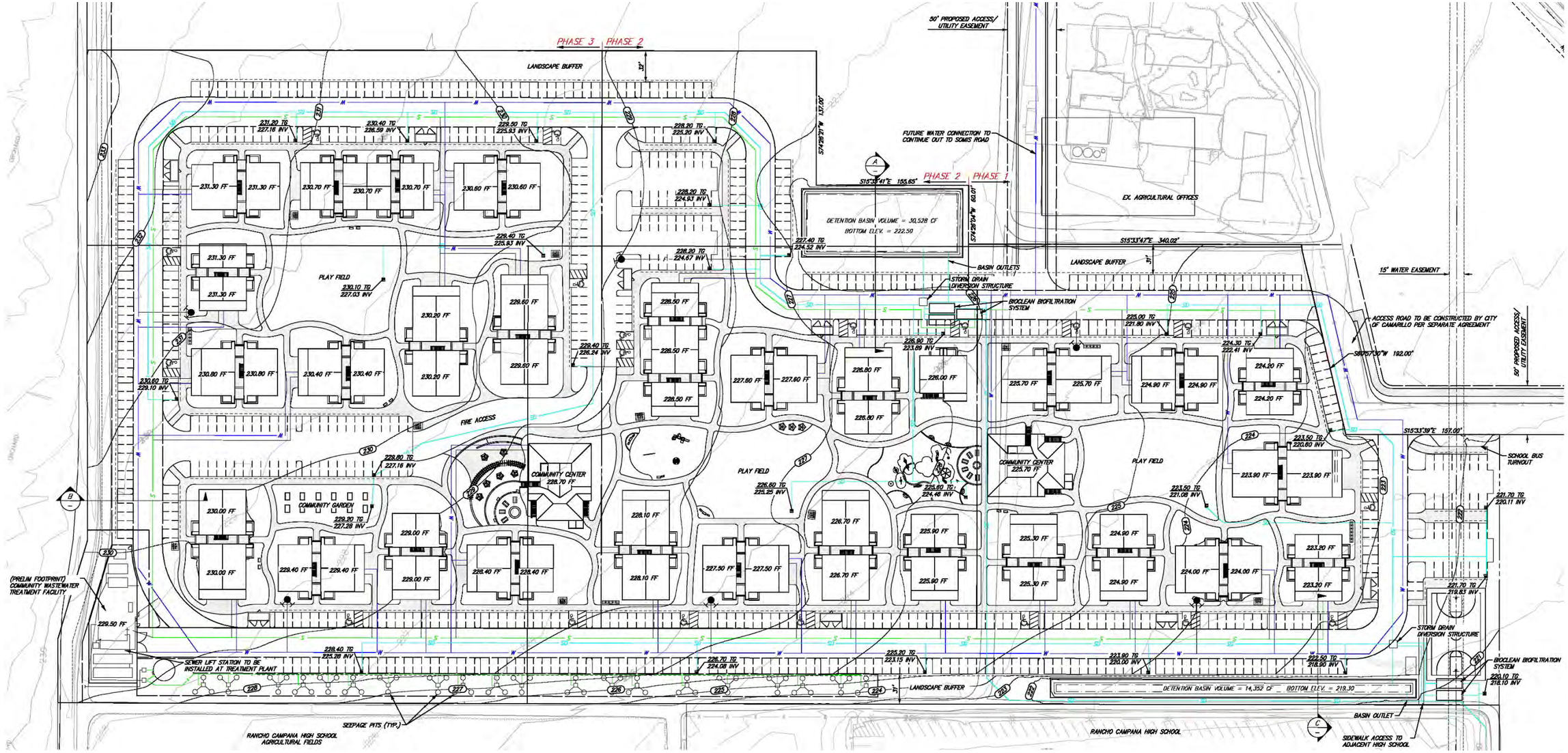
Figure 2-3b Housing Complex Site Plan



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4 Mitigation Monitoring and Reporting Program

CEQA requires that a reporting or monitoring program be adopted for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment (Public Resources Code 21081.6). This mitigation monitoring and reporting program is intended to track and ensure compliance with adopted mitigation measures during the project implementation phase. For each mitigation measure recommended in the Final Environmental Impact Report (Final EIR), specifications are made herein that identify the action required, the monitoring that must occur, and the agency or department responsible for oversight.

Mitigation Measure/ Condition of Approval	Action Required	Timing	Monitoring Requirements	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
Air Quality							
AQ-1. ROC and NO_X Construction Reduction Measures							
Per the VCAPCD Guidelines, when construction emissions exceed 25 pounds per day for reactive organic compounds (ROC) and nitrogen oxides (NO_X), the following measures shall be implemented: ▪ Minimize equipment idling time. ▪ Maintain equipment engines in good condition and in proper tune as per manufacturers' specifications. ▪ Lengthen the construction period during smog season (May through October) to minimize the number of vehicles and equipment operating at the same time. ▪ Use alternatively fueled construction equipment, such as compressed natural gas, liquefied natural gas, or electric, if feasible. ▪ In addition, per recent Ventura County Air Pollution Control District (VCAPCD) guidance on other projects, project construction shall use Tier 3 or above construction equipment for all off-road diesel equipment that has greater than 50 horsepower. A copy of each unit's certified tier specification shall be provided at the time of mobilization of each applicable unit of equipment.	**Requirements:** The Permittee shall minimize the ROC and NOx emissions resulting from project construction activities by implementing the following measures during construction: ▪ Minimize equipment idling time. ▪ Maintain equipment engines in good condition and in proper tune as per manufacturers' specifications. ▪ Lengthen the construction period during smog season (May through October) to minimize the number of vehicles and equipment operating at the same time. ▪ Use alternatively fueled construction equipment, such as compressed natural gas, liquefied natural gas, or electric, if feasible. ▪ Project construction shall be accomplished with the use of Tier 3-powered or above off-road diesel construction equipment for all equipment with greater than 50 horsepower. **Documentation:** The Permittee shall provide a copy of each unit's certified tier specification to VCAPCD for review and approval.	The Permittee shall obtain the approval of the use of the subject equipment from VCAPCD prior to mobilization of any equipment subject to this condition during the construction of each project phase.	Pre-construction (each phase), staff of VCAPCD will review the equipment tier specification for compliance with this condition. VCAPCD staff has the authority to inspect the project site during construction to ensure compliance with the listed requirements.	Ventura County Planning Division			

Mitigation Measure/ Condition of Approval	Action Required	Timing	Monitoring Requirements	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
Biological Resources							
BIO-3. Jurisdictional Waters Mitigation Plan							
The project applicant shall restore herbaceous wetland communities temporarily impacted by project activities, including Giant Scouring Rush and Bermuda Grass – Italian Wild Rye plant communities, at a minimum 1:1 mitigation to impact ratio (estimated at 0.08 acre total based on current design). The project applicant shall contract with a County-approved qualified biologist to prepare a Mitigation Plan that must include restoring these impacted communities occurring in the wetland features within the construction footprint. Planting palettes shall approximate existing species composition, except that non-native species such as Bermuda grass shall not be planted. The Mitigation Plan shall include, but not be limited to, the following components: ▪ A description of the purpose and goals of the mitigation plan, including the improvement of specific physical, chemical, and/or biological functions at the mitigation site. ▪ A description of the plant community type(s) and amount(s) that shall be provided by the mitigation and how the mitigation method shall achieve the mitigation project goals. ▪ A plant palette and methods of salvaging, propagating, and planting the site to be restored. ▪ Methods of soil preparation. ▪ Method and timing of irrigation.	**Requirements:** The project applicant shall contract with a County-approved qualified biologist to prepare and implement a Jurisdictional Waters Mitigation Plan (JWMP) to restore plant communities present in the wetland features located within the construction footprint. These plant communities are comprised of herbaceous wetland species (Giant Scouring Rush and Bermuda Grass – Italian Wild Rye) that will be temporarily impacted by construction activities. The JWMP shall include, but not be limited to, the following components: ▪ A description of the purpose and goals of the mitigation plan, including the improvement of specific physical, chemical, and/or biological functions at the mitigation site. ▪ A description of the plant community type(s) and amount(s) that shall be provided by the mitigation and how the mitigation method shall achieve the mitigation project goals. ▪ A minimum 1:1 mitigation to impact ratio (estimated at 0.08 acre total based on current design). ▪ A planting palette that approximates the existing species composition, except that non-	Prior to the issuance of the Zoning Clearance for Construction, the Permittee shall obtain approval of the JWMP from the Planning Division.	The Planning Division biologist shall review the JWMP for adequacy and review periodic monitoring reports. The Planning Division biologist will conduct site inspections to verify success of the restoration effort.	Ventura County Planning Division			

Mitigation Measure/ Condition of Approval	Action Required	Timing	Monitoring Requirements	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
▪ Best Management Practices (BMPs) that shall be utilized to avoid erosion and excessive runoff before plant establishment. ▪ Maintenance and monitoring necessary to ensure that the restored plant communities meet the success criteria. ▪ Schedule for restoration activities, including weed abatement, propagating and planting, soil preparation, irrigation, erosion control, qualitative and quantitative monitoring, and reporting to the County. ▪ Identification of measurable performance standards for each objective to evaluate the success of the compensatory mitigation. ▪ Identification of contingency and adaptive management measures to address unforeseen changes in site conditions or other components of the mitigation project. The Jurisdictional Waters Mitigation Plan shall provide for monitoring to be conducted for five years or until the performance criteria are met, whichever occurs sooner. The success criteria are as follows: ▪ The mitigation site shall attain a native percent cover that reflects that of the target communities occurring in unimpacted reference sites; ▪ Non-native species shall comprise less than five percent cover and zero percent cover of species listed as “High” on the California Invasive Plant Council’s Invasive Plant Inventory Database (or its successor); and ▪ Irrigation of the native plantings shall cease no later than the end of the third year of restoration monitoring.	native species such as Bermuda grass shall not be planted. ▪ A description of the methods of salvaging, propagating, and planting the area to be restored, including soil preparation and irrigation. ▪ BMPs that shall be utilized to avoid erosion and excessive runoff before plant establishment. ▪ Maintenance and monitoring necessary to ensure that the restored plant communities meet the success criteria. ▪ Schedule for restoration activities, including weed abatement, propagating and planting, soil preparation, irrigation, erosion control, qualitative and quantitative monitoring, and reporting to the County. ▪ Identification of measurable performance standards for each objective to evaluate the success of the compensatory mitigation. ▪ Identification of contingency and adaptive management measures to address unforeseen changes in site conditions or other components of the mitigation project. ▪ An estimated financial assurance amount to be posted to assure plan implementation. ▪ The JWMP shall provide for monitoring to be conducted for five years or until the performance						

Mitigation Measure/ Condition of Approval	Action Required	Timing	Monitoring Requirements	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
In addition, applicable permits shall be obtained from the appropriate federal, state and local agencies for work within Grove's Place Drain (W1) prior to project initiation. Conditions in these permits may augment or supersede Mitigation Measure BIO-3, if more stringent.	criteria are met, whichever occurs sooner. The success criteria for the JWMP are as follows: ▪ The mitigation site shall attain a native percent cover that reflects that of the target communities occurring in unimpacted reference sites; ▪ Non-native species shall comprise less than five percent cover and zero percent cover of species listed as "High" on the California Invasive Plant Council's Invasive Plant Inventory Database (or its successor); and ▪ Irrigation of the native plantings shall cease no later than the end of the third year of restoration monitoring. In addition, applicable permits shall be obtained from the appropriate federal, state, and local agencies for work within Grove's Place Drain prior to project initiation. Conditions imposed by these permits may augment or supersede the measures listed in this condition if more protective of the environment. **Documentation:** The Permittee shall submit the JWMP to the Planning Division for review and approval.						

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Somis Ranch Farmworker Housing Complex

Final Environmental Impact Report

Volume II of II

SCH No. 2020049020

prepared by

Ventura County Resources Management Agency
Planning Division
800 South Victoria Avenue, L# 1740
Ventura, California 93009
Contact: Justin Bertoline, Senior Planner

prepared with the assistance of

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

January 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Somis Ranch Farmworker Housing Complex

Volume II – Draft Environmental Impact Report

prepared by

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Planning Division
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Ventura, California 93009
Contact: Justin Bertoline, Senior Planner

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Ventura, California 93003

September 2020

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

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Executive Summary

This Executive Summary is provided in accordance with the California Environmental Quality Act (CEQA) Guidelines Section 15123. It contains an overview of the programmatic analysis of the proposed Somis Ranch Farmworkers Housing Complex (herein referred to as "proposed project" or "project"). As stated in CEQA Guidelines Section 15123(a), "[a]n [Environmental Impact Report (EIR)] shall contain a brief summary of the proposed actions and its consequences. The language of the summary should be as clear and simple as reasonably practical." CEQA Guidelines Section 15123(b) states, "[t]he summary shall identify: (1) each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; (2) areas of controversy known to the Lead Agency, including issues raised by agencies and the public; and (3) issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects." Accordingly, this summary includes a brief synopsis of the project and identified plan alternatives, environmental impacts and mitigation, areas of known controversy, and issues to be resolved during environmental review. Table ES-1 (at the end of this section) summarizes potential environmental impacts from implementation of the project, mitigation measures that could reduce significant impacts, and the levels of significance following the implementation of mitigation measures.

Project Applicant

Somis Ranch Partners, LLC
P.O. Box 6045
Oxnard, California 93030
(805) 310-5070

Lead Agency Contact Person

Justin Bertoline, Senior Planner
Ventura County Resource Management Agency, Planning Division
800 South Victoria Avenue, L# 1740
Ventura, California 93009-1740
(805) 654-2466

Project Location

The approximately 36.4-acre project site is located 2789 Somis Road on Assessor Parcel Number (APN) 156-0-180-48 in unincorporated Ventura County. The project site is situated just north of the intersection of Somis Road/Las Posas Road, immediately north of and adjacent to the City of Camarillo (City), and outside the City's sphere of influence and the Camarillo Urban Restriction Boundary (CURB). The project site is currently predominantly used for agricultural production. The project site also currently contains two residences and ancillary agricultural buildings located immediately south of Bell Ranch Road. An unpaved road provides access to the project site from Somis Road. The existing residential area covers approximately 2.7 acres (seven percent) of the project site.

The project site is regionally accessible from U.S. Highway 101 and locally accessible from the south via State Route (SR) 34 (i.e., North Lewis Road, which turns into Somis Road when traveling north from U.S. Highway 101) or from the north via SR 118 (i.e., East Los Angeles Avenue) to Somis Road.

Project Description

This EIR has been prepared to examine the potential environmental effects of the proposed project. The following is a summary of the full project description, which can be found in Section 2, *Project Description*.

The approximately 36.4-acre project site is located 2789 Somis Road on Assessor Parcel Number (APN) 156-0-180-48. The project site is situated just north of the intersection of Somis Road/Las Posas Road, immediately north of and adjacent to the City of Camarillo (City), and outside of the City's sphere of influence and the Camarillo Urban Restriction Boundary (CURB).

The project site has a General Plan land use designation of Agricultural (County of Ventura [County] 2019) and the zoning designation of the site is AE (Agricultural Exclusive), which has a 40-acre minimum lot size (County 2020).

Project Characteristics

The proposed project would involve the construction and operation of an affordable multi-family housing complex for farmworkers (housing complex) on three proposed parcels totaling 18.43 acres and the continuation of agricultural use on a 17.93-acre continued agricultural use parcel. The proposed housing complex would include 360 dwelling units (apartments) and associated amenities. The project also would include the construction of a community wastewater treatment facility (CWWTF), which would serve the proposed housing complex and produce recycled water for irrigation of adjacent agricultural fields. The proposed project would not involve demolition or alteration of the existing on-site residences and agricultural buildings.

Housing Complex

The proposed 360-unit housing complex would include a variety of one-, two-, and three-bedroom apartments, as well as associated amenities such as community centers, play fields, tot lots/playgrounds, a basketball court, a community garden area, and a network of meandering pedestrian walkways. The majority of the apartment buildings would be three stories in height, with a maximum building height of 35.0 feet from ground level. The architectural style of the residential buildings would be "Spanish Colonial."

The proposed project would provide 655 parking spaces, 19 of which would be designated as accessible spaces. In addition, 379 bike parking spaces would be available throughout the complex.

Community Wastewater Treatment Facility

The proposed housing complex would include a CWWTF on an approximately 5,000- to 7,000-square-foot area in the northwest corner of the project site. The proposed CWWTF would include a conventional membrane bioreactor package and would treat all wastewater generated by the housing complex. The CWWTF would be designed to treat wastewater (sewage) generated by the housing complex to tertiary treatment standards. The Ventura Regional Sanitation District would be responsible for operation of the CWWTF.

Treated wastewater effluent, referred to as "recycled water," would be beneficially reused for off-site agricultural irrigation. The project site is situated adjacent to approximately 70 acres of orchards. Currently, the adjacent orchards are irrigated with relatively low-quality groundwater pumped from a private well. If the proposed project is approved and built, higher-quality recycled water generated by the CWWTF would be blended with pumped groundwater to improve the quality of agricultural irrigation water. Excess recycled water and treated wastewater effluent not meeting recycled water quality standards would be dispersed through a series of underground seepage pits along the western boundary of the housing complex.

Continued Agricultural Use Parcel

Under the proposed project, the eastern portion of the project site would continue to operate as an agricultural field for crops on a 17.93-acre continued agricultural use parcel. The proposed project would not result in any physical changes to the continued agricultural use parcel.

Construction

The housing complex would be constructed in three phases: Phase 1 would include 100 units, Phase 2 would include 100 units, and Phase 3 would include 160 units. The CWWTF would be constructed as part of Phase 1 and would be expanded to accommodate the needs of the housing complex as additional apartments are constructed during Phases 2 and 3.

Construction of Phase 1 is anticipated to begin in August 2021. Phases 2 and 3 would be constructed as needed, once the previous phase of the housing complex is occupied. Construction of Phases 1, 2, and 3 of the housing complex is expected to take approximately eight, six, and eight months, respectively.

Construction activities across Phases 1, 2, and 3 would require approximately 1,500 cubic yards (cy) of cut soil and 35,100 cy of fill soil, resulting in the import of approximately 33,600 cy of soil to the project site. No soil export would be necessary. Construction staging and construction work parking would occur on the project site.

Project Objectives

The objectives of the proposed project are as follows:

1. Develop a financially viable affordable residential community for lower-income farmworkers and their families in Ventura County to accommodate broad market needs.
2. Provide affordable housing units for farmworkers that will help meet the identified need assigned to Ventura County pursuant to California State Law and adopted in the County's Housing Element.
3. Support the local agricultural industry by providing local farmworker housing proximate to agricultural operations in Ventura County.
4. Provide a variety of apartment sizes to meet various family sizes.
5. Arrange the proposed apartment buildings and on-site amenities in a manner that is logical and promotes efficient use of the housing complex property.
6. Provide recreational opportunities for future project residents with on-site play fields, tot lots/playgrounds, active recreation opportunities, a community garden area, meeting rooms, and a network of meandering pedestrian walkways.

7. Minimize proposed building footprints and other impervious surfaces to accommodate on-site landscaped common space for future project residents.
8. Design an efficient internal circulation system that is safe for pedestrians and bicyclists.
9. Locate affordable housing in a location that provides convenient access to nearby services such as library, schools, commercial centers, and religious institutions.
10. Develop the project site in a manner that would not adversely affect neighboring land uses or infrastructure, including with regard to:
    - □ Water and sanitation services;
    - □ Land use compatibility; and
    - □ The scale of the project.
11. Develop the project site in a manner that would minimize affects from neighboring land uses to the proposed housing complex and future project residents.
12. Avoid modification to the existing Bell Ranch residences and agricultural buildings.

Alternatives

As required by CEQA, this EIR examines alternatives to the proposed project. Studied alternatives include the following two alternatives:

- Alternative 1: No Project Alternative
- Alternative 2: Reduced Footprint Alternative

Under the No Project Alternative, there would be no change to the project site. Existing agricultural operations would continue. The No Project Alternative would be the overall environmentally superior alternative because it would result in no impact or less than significant impacts to all environmental issues and would avoid all project impacts. However, the No Project Alternative would not fulfill Project Objectives 1 through 12. This alternative would not provide affordable housing for farmworkers in Ventura County.

Alternative 2 (Reduced Footprint) would generate impacts similar to or reduced in comparison to the proposed project. Nevertheless, this alternative would not avoid the project's significant and unavoidable impacts to agricultural resources, as development of a housing complex would still require the conversion of Prime Farmland and Farmland of Statewide Importance to nonagricultural use. After the No Project Alternative, Alternative 2 would be considered the environmentally superior alternative.

Areas of Known Controversy

During the EIR scoping process, several members of the general public voiced concern regarding potential impacts associated with traffic, noise, school capacity, and preservation of agricultural lands. Responses to the Notice of Preparation of a Draft EIR and input received at the EIR scoping meeting held by the County are summarized in Section 1, *Introduction*.

Issues to be Resolved

The proposed project would require the discretionary approval of the County of Ventura. The Planning Commission is the decision-maker for the requested Tentative Parcel Map (TPM) and Planned Development Permit (PD Permit) and the Board of Supervisors is the decision-maker for the requested Conditional Use Permit (CUP) for the CWWTF. Construction would require grading permits. The CWWTF would require system construction permitting, plumbing, electrical, and structural permits and approvals. In addition, various access and utilities easements would be required.

The proposed CWWTF would also require water reclamation requirement (WRR) and waste discharge requirement (WDR) permits and approval to construct from the Los Angeles Regional Water Quality Control Board and California State Water Resources Control Board.

Summary of Impacts and Mitigation Measures

Table ES-1 summarizes the environmental impacts of the proposed project, proposed mitigation measures, and residual impacts (the impact after application of mitigation, if required). Impacts are categorized as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per Section 15093 of the CEQA Guidelines.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under Section 15091 of the CEQA Guidelines.
- **Less than Significant.** An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. Mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Table ES-1 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measure(s)	Residual Impact
Air Quality		
Impact AQ-1. Emissions associated with project construction would be less than significant. However, because reactive organic compounds (ROC) and nitrogen oxides (NO_X) emissions would exceed 25 pounds per day, implementation of Mitigation Measure AQ-1 is recommended.	**AQ-1. ROC and NO_X Construction Reduction Measures.** Per the VCAPCD Guidelines, when construction emissions exceed 25 pounds per day for ROC and NO_X, the following measures shall be implemented: ▪ Minimize equipment idling time. ▪ Maintain equipment engines in good condition and in proper tune as per manufacturers' specifications. ▪ Lengthen the construction period during smog season (May through October) to minimize the number of vehicles and equipment operating at the same time. ▪ Use alternatively fueled construction equipment, such as compressed natural gas, liquefied natural gas, or electric, if feasible. ▪ In addition, per recent VCAPCD guidance on other projects, project construction shall use Tier 3 or above construction equipment for all off-road diesel equipment that has greater than 50 horsepower. A copy of each unit's certified tier specification shall be provided at the time of mobilization of each applicable unit of equipment.	Less than significant
Impact AQ-2. Air pollutant emission impacts associated with project operation would be less than significant.	None required	Less than significant
Impact AQ-3. The project would not expose sensitive receptors to substantial pollutant concentrations from carbon monoxide (CO) hotspots, valley fever, or toxic air contaminants (TACs). Impacts would be less than significant.	None required	Less than significant
Impact AQ-4. Implementation of the project would not create objectionable odors that could affect a substantial number of people. Impacts would be less than significant.	None required	Less than significant
Impact AQ-5. The project would be consistent with applicable Ventura County General Plan goals and policies. Impacts would be less than significant.	None required	Less than significant

Impact	Mitigation Measure(s)	Residual Impact
Agricultural Resources – Soils		
Impact AG-1. The project would result in the direct loss of 18.2 acres of Prime Farmland or Farmland of Statewide Importance to nonagricultural use. No feasible mitigation is available to reduce this impact to a less than significant level; therefore, the impact due to loss of Prime Farmland and Farmland of Statewide Importance soils would be significant and unavoidable.	There is no feasible mitigation currently available.	Significant and unavoidable
Impact AG-2. The project would not require a General Plan amendment. Therefore, no impact would occur.	None required	No impact
Impact AG-3. The project would be consistent with applicable Ventura County General Plan goals and policies. Impacts would be less than significant.	None required	Less than significant
Biological Resources		
Impact BIO-1. The project would result in no direct or indirect impacts to special-status plant or wildlife species due to the disturbed nature of the project site. No protected trees occur within the project construction footprint; therefore, no protected trees would be impacted. Regulatory compliance would protect nesting bird species during project construction. Impacts would be less than significant.	None required	Less than significant
Impact BIO-2. The project would not impact any sensitive plant communities. Potential indirect impacts to sensitive plant communities from dust during project construction would be less than significant.	None required	Less than significant
Impact BIO-3. Impacts to potentially jurisdictional waters/wetlands within the biological study area would be significant.	**BIO-3. Jurisdictional Waters Mitigation Plan.** The project applicant shall restore herbaceous wetland communities temporarily impacted by project activities, including Giant Scouring Rush and Bermuda Grass – Italian Wild Rye plant communities, at a minimum 1:1 mitigation to impact ratio (estimated at 0.09 acre total based on current design). The project applicant shall contract with a County-approved qualified biologist to prepare a Mitigation Plan that must include restoring these impacted communities occurring in the wetland features within the construction footprint. Planting palettes shall approximate existing species composition, except that non-native species such as Bermuda grass shall not be planted. The Mitigation Plan shall include, but not be limited to, the following components:	Less than significant

Impact	Mitigation Measure(s)	Residual Impact
	▪ A description of the purpose and goals of the mitigation plan, including the improvement of specific physical, chemical, and/or biological functions at the mitigation site. ▪ A description of the plant community type(s) and amount(s) that shall be provided by the mitigation and how the mitigation method shall achieve the mitigation project goals. ▪ A plant palette and methods of salvaging, propagating, and planting the site to be restored. ▪ Methods of soil preparation. ▪ Method and timing of irrigation. ▪ Best Management Practices (BMPs) that shall be utilized to avoid erosion and excessive runoff before plant establishment. ▪ Maintenance and monitoring necessary to ensure that the restored plant communities meet the success criteria. ▪ Schedule for restoration activities, including weed abatement, propagating and planting, soil preparation, irrigation, erosion control, qualitative and quantitative monitoring, and reporting to the County. ▪ Identification of measurable performance standards for each objective to evaluate the success of the compensatory mitigation. ▪ Identification of contingency and adaptive management measures to address unforeseen changes in site conditions or other components of the mitigation project. The Jurisdictional Waters Mitigation Plan shall provide for monitoring to be conducted for five years or until the performance criteria are met, whichever occurs sooner. The success criteria are as follows: ▪ The mitigation site shall attain a native percent cover that reflects that of the target communities occurring in unimpacted reference sites; ▪ Non-native species shall comprise less than five percent cover and zero percent cover of species listed as “High” on the California Invasive Plant Council’s Invasive Plant Inventory Database (or its successor); and	

Impact	Mitigation Measure(s)	Residual Impact
	▪ Irrigation of the native plantings shall cease no later than the end of the third year of restoration monitoring.	
Impact BIO-4. No direct impact to local or regional wildlife movement or habitat connectivity would occur. Indirect impacts associated with intimidation of wildlife would be less than significant.	None required	Less than significant
Impact BIO-5. The project would be consistent with applicable Ventura County General Plan goals and policies. Impacts would be less than significant.	None required	Less than significant
Cultural Resources – Historical		
Impact CUL-1. The project would not demolish, relocate, or alter in an adverse manner the physical characteristics of historical resources on the project site. Impacts to historical resources would be less than significant.	None required	Less than significant
Impact CUL-2. The project would be consistent with applicable Ventura County General Plan goals and policies. Impacts would be less than significant.	None required	Less than significant
Noise and Vibration		
Impact. N-1. Construction noise and stationary noise and off-site traffic noise from operation of the project would not exceed Ventura County standards at the nearby noise-sensitive receptors. Impacts would be less than significant.	None required	Less than significant
Impact N-2. Project-related vibration would not result in excessive ground-borne vibration or noise. Impacts would be less than significant	None required	Less than significant
Impact N-3. The project would be consistent with applicable Ventura County General Plan goals and policies. Impacts would be less than significant.	None required	Less than significant
Public Health		
Impact PH-1. Operation of the CWWTF would require routine transport, storage, use, and disposal of hazardous materials for purposes of treatment of wastewater and solids. Facility operation would be subject to existing and future federal, State, and local health and safety requirements, including those established for the handling, storage, transportation, and disposal of hazardous materials. Therefore, impacts would be less than significant.	None required	Less than significant

Impact	Mitigation Measure(s)	Residual Impact
Impact PH-2. The CWWTF would treat wastewater to tertiary treatment standards and produce recycled water for agricultural irrigation. Excess recycled water and treated wastewater effluent from the CWWTF not meeting recycled water quality standards would be dispersed through a series of underground seepage pits. Regulatory compliance would minimize public health risks associated with recycled water use and effluent dispersal. Impacts would be less than significant.	None required	Less than significant
Impact PH-3. The project would be consistent with applicable Ventura County General Plan goals and policies. Impacts would be less than significant.	None required	Less than significant
Transportation		
Impact T-1. Implementation of the project would not result in a substantial increase in vehicle miles traveled (VMT) because the project would provide 100 percent affordable residential units and would be consistent with the County NCZO farmworker employment criteria. Therefore, this impact would be less than significant.	None required	Less than significant
Impact T-2. The project would not modify or otherwise impact the design of any public roads or intersections. Therefore, this impact would be less than significant.	None required	Less than significant
Impact T-3. Implementation of the project would not modify or block existing or planned pedestrian/bicycle facilities or otherwise have an adverse impact on existing pedestrian or bicycle facilities. Therefore, this impact would be less than significant.	None required	Less than significant
Impact T-4. The project's affordable farmworker housing would not interfere with existing bus transit facilities or routes or create a substantial increase in demand for additional or new bus transit facilities/services. Therefore, this impact would be less than significant.	None required	Less than significant
Impact T-5. The project would be consistent with applicable Ventura County General Plan goals and policies. Impacts would be less than significant.	None required	Less than significant

Impact	Mitigation Measure(s)	Residual Impact
Waste Treatment and Disposal Facilities – Solid Waste Facilities		
SW-1. The CWWTF design would be subject to review by and approval from the Environmental Health Division of the County's Resource Management Agency. The project would comply with applicable state and local requirements as set forth in the County's Initial Study Assessment Guidelines. Impacts would be less than significant.	None required	Less than significant
Impact SW-2. The project would be consistent with applicable Ventura County General Plan goals and policies. Impacts would be less than significant.	None required	Less than significant
Water Resources – Surface Water Quality		
Impact WQ-1. Construction and operation of the proposed project would increase contaminants in stormwater runoff due to ground disturbance and changes in ground cover. However, with regulatory compliance, project impacts to surface water quality from construction and operation of the project would be less than significant.	None required	Less than significant
Impact WQ-2. Recycled water would be produced at the CWWTF and blended with local groundwater supplies for agricultural irrigation uses. The incorporation of recycled water into the area's existing agricultural irrigation uses would result in improved quality of the applied irrigation water, which would result in improved surface water quality in the area. With regulatory compliance, the project's impacts to surface water quality would be less than significant.	None required	Less than significant
Impact WQ-2. The project would be consistent with applicable Ventura County General Plan goals and policies. Impacts would be less than significant.	None required	Less than significant
Land Use and Planning		
LU-1. The project would be consistent with applicable Ventura County General Plan goals and policies for air quality. Impacts would be less than significant.	None required	Less than significant
LU-2. The project would be consistent with applicable Ventura County General Plan goals and policies for agricultural resources related to soils. Impacts would be less than significant.	None required	Less than significant

Impact	Mitigation Measure(s)	Residual Impact
LU-3. The project would be consistent with the County's Save Open Space and Agricultural Resources (SOAR) Ordinance. Impacts would be less than significant.	None required	Less than significant
LU-4. The project would be consistent with applicable Ventura County General Plan goals and policies for biological resources. Impacts would be less than significant.	None required	Less than significant
LU-5. The project would be consistent with applicable Ventura County General Plan goals and policies for historic cultural resources. Impacts would be less than significant.	None required	Less than significant
LU-6. The project would be consistent with applicable Ventura County General Plan goals and policies for noise and vibration. Impacts would be less than significant.	None required	Less than significant
LU-7. The project would be consistent with applicable Ventura County General Plan goals and policies for public health. Impacts would be less than significant.	None required	Less than significant
LU-8. The project would be consistent with applicable Ventura County General Plan goals and policies for transportation. Impacts would be less than significant.	None required	Less than significant
LU-9. The project would be consistent with applicable Ventura County General Plan goals and policies for solid waste facilities. Impacts would be less than significant.	None required	Less than significant
LU-10. The project would be consistent with applicable Ventura County General Plan goals and policies for surface water quality. Impacts would be less than significant.	None required	Less than significant
Other CEQA-Required Discussions		
Population growth associated with the proposed project would not cause the County to exceed Southern California Association of Governments' (SCAG) 2040 population forecast. The purpose of the project is to provide housing for current farmworkers in the County and, therefore, the project would not cause an exceedance in the regional population or employment growth forecasts. Impacts would be less than significant.	None required	Less than significant
The project would not use unusual amounts of energy or construction materials and impacts related to consumption of non-renewable and slowly renewable resources would be less than significant.	None required	Less than significant

1 Introduction

This document is an Environmental Impact Report (EIR) for the proposed Somis Ranch Farmworker Housing Complex (hereafter referred to as the "proposed project" or "project") located at 2789 Somis Road in unincorporated Ventura County, immediately north of the City of Camarillo (City). The proposed project would be constructed on a site currently used for agricultural production. The proposed project would involve the construction and occupation of an affordable multi-family housing complex for farmworkers (housing complex) on three proposed parcels totaling 18.43 acres and the continuation of agricultural use on a 17.93-acre continued agricultural use parcel. The proposed housing complex would include 360 dwelling units (apartments) and associated amenities. The project would also include construction of a community wastewater treatment facility (CWWTF), which would serve the proposed housing complex and produce recycled water for irrigation of adjacent agricultural fields. The proposed project would not involve demolition or alteration of the existing on-site residences and agricultural buildings.

This section discusses (1) the EIR background; (2) the legal basis for preparing an EIR; (3) the scope and content of the EIR; (4) the lead, responsible, and trustee agencies; and (5) the environmental review process required under the California Environmental Quality Act (CEQA). The proposed project is described in detail in Section 2, *Project Description*.

1.1 Environmental Impact Report Background

The County of Ventura distributed a Notice of Preparation (NOP) of the EIR for a 30-day agency and public review period starting on April 13, 2020 and ending on May 13, 2020. CEQA §21092(b)(3)(C) requires, as one of three options, "direct mailing to the owners and occupants of contiguous property shown on the latest equalized assessment roll" regarding distributing the NOP for an EIR. The NOP for this EIR was distributed on April 7, 2020 to the owners and occupants of parcels adjacent to the project site, as well as interested parties. The NOP was published in a local newspaper, VC Star, on April 13, 2020, including the notice of a public EIR Scoping Meeting to be held on April 22, 2020. The NOP was also posted at the Ventura County Resource Management Agency office, the Ventura County Clerk-Recorder office, and online at the Ventura County Resource Management Agency website.

The County held an EIR Scoping Meeting on April 22, 2020.[1] The meeting, held from 6:00 p.m. to 7:30 p.m., was aimed at providing information about the proposed project to members of public agencies, interested stakeholders, and residents/community members. The meeting was held remotely via Zoom webinar. The County received letters from 5 state, regional, and local agencies; 1 non-government organization; and 16 individuals in response to the NOP during the public review period, as well as various verbal comments during the EIR Scoping Meeting. The NOP is presented in Appendix A of this EIR, along with the NOP responses received. Table 1-1 and Table 1-2 summarize the content of the written and verbal comments and where the issues raised are addressed in the EIR.

[1] CEQA §21083.9 requires lead agencies to call scoping meetings for: (1) a proposed project that may affect highways or other facilities under the jurisdiction of the California Department of Transportation if the meeting is requested by the department, or (2) a project of statewide, regional, or areawide significance. The proposed project would not affect California Department of Transportation highways or other facilities, and is not a project of statewide, regional, or areawide significant. Nevertheless, a scoping meeting was held to collect public input.

1.2 Purpose and Legal Authority

The proposed project requires the discretionary approval of the County of Ventura; therefore, the project is subject to the environmental review requirements of CEQA. In accordance with Section 15121 of the CEQA Guidelines (California Code of Regulations [CCR] Title 14), the purpose of this EIR is to serve as an informational document that "will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project."

This EIR has been prepared as a project EIR pursuant to Section 15161 of the CEQA Guidelines. A Project EIR is appropriate for a specific development project. As stated in the CEQA Guidelines, "This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project, including planning, construction, and operation."

This EIR serves as an informational document for the public and County of Ventura decision makers. The CEQA process will conclude with public hearings before the Planning Commission and the Board of Supervisors to consider certification of a Final EIR and approval of the proposed project.

Table 1-1 Agency Comments on the NOP and EIR Responses

Commenter	Comment/Request	Response/Where Comments are Addressed in the EIR
California Department of Fish and Wildlife (CDFW)	CDFW is a Responsible Agency under CEQA for the project for lake and streambed alteration regulatory authority and any species protected under the California Endangered Species Act.	CDFW have been identified as a responsible agency under Section 1.4, *Lead, Responsible, and Trustee Agencies*..
	Project activities during the bird breeding season could impact birds covered by the federal Migratory Bird Treaty Act (MBTA) and/or California Fish and Game Code. Suggestions mitigation measures for impacts to nesting birds.	See Section 4.3, *Biological Resources*, of the EIR.
	Project landscaping should avoid invasive/exotic plants.	
	A complete assessment and impact analysis of the flora and fauna within and adjacent to the project area should be conducted.	
	The Arroyo Las Posas River is an important riparian corridor in the vicinity of the project site that serves as an important wildlife movement corridor. A thorough discussion of direct, indirect, and cumulative impacts to biological resources should be included in the EIR.	
	If the project would result in potential take of a species listed or a candidate for listing under the California Endangered Species Act, the project would require an Incidental Take Permit for the CDFW prior to project construction.	
	The EIR should include mitigation measures for adverse impacts to sensitive plants, animals, and habitats.	
	For proposed preservation and/or restoration, the EIR should include measures to protect the targeted habitat values from direct and indirect negative impacts in perpetuity.	

Commenter	Comment/Request	Response/Where Comments are Addressed in the EIR
	Limit translocation and transplantation is discouraged as mitigation for impacts to sensitive plants and animals. To avoid direct mortality, it is recommended that a qualified biological monitor approved by CDFW be on-site prior to and during ground and habitat disturbing activities to move out of harm's way special status species or other wildlife of low mobility that would be injured or killed by grubbing or construction activities.	
	The EIR should include a complete discussion of the proposed project and a range of feasible alternatives to avoid or otherwise minimize impacts to sensitive biological resources and wildlife movement areas.	See Section 2, *Project Description*, and Section 6, *Alternatives*, of the EIR.
City of Camarillo	The project should be evaluated to assure compatibility with surrounding land uses in the City and be designed to complement existing surrounding development. The EIR should consider the City's Community Design Element. In particular: ■ Residential areas should be compatible with surrounding land use and neighborhoods; ■ The Residential Design Guidelines should be reviewed for consistency; ■ Beatifying SR 34; ■ Identification of the intersection of SR 34/Los Posas Road/Upland Drive as a primary gateway into the City; and ■ Identification of SR 34 as a scenic corridor by the City.	The project site is within unincorporated Ventura County; therefore, the project is not required to comply with City of Camarillo design policies.
	The EIR should address construction noise at Rancho Campana High School and the Camarillo Public Library.	See Section 4.5, *Noise and Vibration*, of the EIR.
	The EIR should address safety and security related to the adjacent City's Desalter Facility.	Safety and security issues for the City's Desalter Facility should be included in the CEQA documentation for the Desalter Facility. Which is currently under construction.
	The project site plan does not include an agricultural buffer at the southeast corner of the project housing complex.	An agricultural buffer is not required between non-agricultural land uses. See Section 2, *Project Description*, of the EIR for the landscape plan, which shows landscaping between the project housing complex and the City's Desalter Facility.

Commenter	Comment/Request	Response/Where Comments are Addressed in the EIR
	The EIR should address security and fencing between the proposed project and the adjacent high school and City's Desalter Facility.	See Section 2, *Project Description*, of the EIR for the project site plan and landscape plan. A 29-foot-wide landscaped buffer is proposed to the north, west, and east of the proposed housing complex. Security is not an environmental issue under CEQA.
	The EIR should address transportation routes and modes of transportation for the proposed project. Ensure that the two access project driveways along Somis Road are not too close together and are acceptable for emergency access. Include traffic signals as necessary.	See Section 4.7, *Transportation*, of the EIR.
	The project must include the minimum state requirements with regard to off-street parking spaces.	See Section 2, *Project Description*, of the EIR.
	The project cannot connect to the Calleguas Municipal Water District's Salinity Management Pipeline (SMP) brine line.	See Section 4.9, *Water Resources – Surface Water Quality*, of the EIR.
	Provide a copy of Appendix A of the Supplemental Information & Project Description by Jensen Design & Survey. Provide copies of all agreements reference in the project applicant's submittal documents.	The County is coordinating with the City and has provided the requested information to the City.
Pleasant Valley Recreation & Park District (PVRPD)	The EIR should include a more detailed analysis of impacts to parks and recreation spaces and programming, as the project would disproportionately impact PVRPD resources due to proximity and expected population.	See Section 4.11, *Less Than Significant Environmental Effects*, of the EIR.
Somis Municipal Advisory Council (MAC)	Patrick Richards comments that a number of his questions raised at the Scoping Meeting were not addressed.	Table 1-1 and Table 1-2 include the comments received during the NOP scoping period, including the Scoping Meeting, as well as the locations in this EIR where the comments are addressed.
	Patrick Richards comments that the project appears to be subject to popular vote under the County's Save Open space and Agricultural Resources (SOAR) Ordinance.	The project is not subject to the County's SOAR Ordinance. See Section 4.2, *Agricultural Resources – Soils*, and Section 4.10, *Land Use and Planning,* of the EIR.
	Patrick Richards comments that the noticing for the Scoping Meeting did not meet the state minimum requirement.	The County followed the requirements included in Section 15082(a) and (c) of the *CEQA Guidelines* for sending a Notice of Preparation (NOP) of an EIR and related Scoping Meeting(s). See Section 1.1, *Environmental Impact Report Background*.

Commenter	Comment/Request	Response/Where Comments are Addressed in the EIR
Ventura County Air Pollution Control District (VCAPCD)	The air quality assessment should consider consistency with the 2016 Air Quality Management Plan (AQMP). The Ventura County Air Quality Assessment Guidelines should also be used to evaluate all potential air quality impacts. The proposed CWWTF may need to obtain an APCD Permit to Operate for any odor control equipment and/or if the site is proposing to install an emergency diesel generator over 50 brake horsepower (BHP). The VCAPCD will review the EIR's air quality impact section, based on the CEQA Guideline's Appendix G significance thresholds for Air Quality.	See Section 4.1, *Air Quality*, of the EIR.
	Regarding the greenhouse gas (GHG) emissions analysis, the VCAPCD has concluded that using the neighboring South Coast Air Pollution Control District's recommended GHG emissions thresholds, as neither the County nor the VCAPCD have adopted GHG thresholds.	See Section 4.11, *Less Than Significant Environmental Effects*, of the EIR.

Table 1-2 Public Comments on the NOP and EIR Responses

Issue	Comment/Request	Where Comments are Addressed in the EIR
Support for Project	Several written and verbal comments were received in support of the proposed project because it would provide "essential" farmworkers with affordable housing.	Comments noted and will be presented to decisions makers.
CWWTF	The public agency that would operate the proposed CWWTF needs to be included in the EIR.	See Section 2, *Project Description*, of the EIR.
	Effluent from the proposed CWWTF must be in compliance with the Regional Water Quality Control Board (RWQCB) requirements and other applicable requirements.	See Section 4.9, *Water Resources – Surface Water Quality*, of the EIR.
Schools	The project would impact local school districts, including Somis Union School District and Oxnard Union High School District. The existing Somis School would not be able to support the proposed housing complex.	See Section 4.11, *Less Than Significant Environmental Effects*, of the EIR.
Transportation	The project would impact traffic. The project's location would cause a contribution to substantial impacts to vehicular traffic on SR 34 and SR 118. The potential project-related and cumulative traffic impacts to Somis Road and the community of Somis should be analyzed. Concerns for the safety of pedestrians and bicyclists in the project's vicinity. Will the project require a new bus stop of facilities?	See Section 4.7, *Transportation*, of the EIR.
Public Services	The project would impact the police and fire departments and hospitals.	See Section 4.11, *Less Than Significant Environmental Effects*, of the EIR.

Issue	Comment/Request	Where Comments are Addressed in the EIR
Utilities	The project would impact water supply, specifically Water District No. 19.	See Section 4.11, *Less Than Significant Environmental Effects*, of the EIR.
Water Quality	The EIR should address project-related and cumulative impacts on the Pleasant Valley Groundwater Basin. The EIR should address how NPDES requirements would be met. The EIR should analyze possible drainage impacts from the project.	See Section 4.9, *Water Resources – Surface Water Quality*, of the EIR.
Community Character	The project and cumulative projects would impact the community character of Somis. The EIR should consider the Somis Road viewshed. No three-story buildings currently exist along SR 34 from U.S. Highway 101 to SR 118.	See Section 4.11, *Less Than Significant Environmental Effects*, of the EIR.
Glare	The EIR should include a discussion of potential glare impacts to surrounding residences, to Rancho Campana High School, and from Somis Road.	See Section 4.11, *Less Than Significant Environmental Effects*, of the EIR.
Geology/Soils	The EIR should address hazards such as liquefaction and subsidence because the project site is located near Calleguas Creek.	See Section 4.11, *Less Than Significant Environmental Effects*, of the EIR.
Growth Inducement	The EIR should include a discussion of growth inducement and related impacts.	See Section 5.1, *Growth Inducement*, of the EIR.
Agricultural Land	The project would result in the loss of productive agricultural land. The EIR should address the loss of Prime, Statewide, Unique, and Local Farmlands.	See Section 4.2, *Agricultural Resources – Soils*, of the EIR.
SOAR Ordinance	The project appears to be subject to popular vote under the County's SOAR Ordinance.	See Section 4.2, *Agricultural Resources – Soils*, and Section 4.10, *Land Use and Planning*, of the EIR.
General Plan Consistency	The project needs to be analyzed for consistency with the County General Plan.	The project's consistency with the County General Plan is discussed throughout this EIR and specifically in Section 4.10, *Land Use and Planning*.
Alternatives	Alternative should include alternative sites, including within other cities in Ventura County.	See Section 6, *Alternatives*, of the EIR.
Inadequate Scoping	The format of the Scoping Meeting (i.e., a virtual meeting) did not provide for adequate public input. The County is taking advantage of the COVID-19 pandemic to move the project forward without adequate public input. Public noticing for the EIR and the Scoping Meeting was inadequate (i.e., not enough nearby property owners/tenants were noticed). Why was no Initial Study included with the NOP?	CEQA §21092(b)(3)(C) requires, as one of three options, "direct mailing to the owners and occupants of contiguous property shown on the latest equalized assessment roll" regarding distributing the NOP for an EIR. The County followed these requirements. See Section 1.1, *Environmental Impact Report Background*.

Issue	Comment/Request	Where Comments are Addressed in the EIR
Non-CEQA-Related Issues	The qualifying income for farmworkers seems high.	See Section 2.5.1.1, *Residential Buildings and Dwelling Units*, of the EIR.
	Concerns that the project applicant would sell the project in a few years as high-priced condominiums. Concerns that the owner of the property would be the same as the employer of workers residing at the proposed housing complex. Will there be controls on the number of people that can live in a rental unit?	Not CEQA-related. Concern to be addressed in Conditions of Approval for the project.
	How long will the large number of farm workers be viable, given the constant advances in technology? Is the project then housing for the homeless?	Not a CEQA-related issue. Concerns are speculative.
	Will the City of Camarillo be indirectly subsidizing the project?	Not a CEQA-related issue. The project would be not subsidized by the County or the City of Camarillo.

1.3 Scope and Content

This EIR addresses impacts identified as potentially significant. The following issues were found to include potentially significant impacts and have been studied in the EIR:

- Air Quality
- Agricultural Resources – Soils
- Biological Resources
- Cultural Resources – Historic
- Noise and Vibration
- Public Health
- Transportation
- Waste Treatment and Disposal Facilities – Solid Waste
- Water Resources – Surface Water Quality
- Land Use and Planning

In preparing the EIR, use was made of pertinent County policies and guidelines, certified EIRs and adopted CEQA documents, and other background documents. A full reference list is contained in Section 7, *References and Preparers*.

The alternatives section of the EIR (Section 6) was prepared in accordance with Section 15126.6 of the CEQA Guidelines and focuses on alternatives that are capable of eliminating or reducing significant adverse effects associated with the project while feasibly attaining most of the basic project objectives. In addition, the alternatives section identifies the “environmentally superior” alternative among the alternatives assessed. The alternatives evaluated include the CEQA-required “No Project” alternative and one alternative development scenario for the project area.

The level of detail contained throughout this EIR is consistent with the requirements of CEQA and applicable court decisions. Section 15151 of the CEQA Guidelines provides the standard of adequacy on which this document is based. The CEQA Guidelines state:

> An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good faith effort at full disclosure.

1.4 Lead, Responsible, and Trustee Agencies

The CEQA Guidelines define lead, responsible, and trustee agencies. The County of Ventura is the lead agency for the project because it holds principal responsibility for approving the project.

A responsible agency refers to a public agency other than the lead agency that has discretionary approval over the project. Responsible agencies include the United States Army Corps of Engineers (USACE), which regulates waters of the U.S.; the California Department of Fish and Wildlife (CDFW), which regulates waters of the state; the Los Angeles Regional Water Quality Control Board (RWQCB), which regulates water quality in the region; and the Ventura County Air Pollution Control District (VCAPCD), which regulates air quality in the region. The VCAPCD submitted responses to the NOP that are included in Appendix A. The EIR will be submitted to the Los Angeles RWQCB and the VCAPCD for review and comment.

A trustee agency refers to a state agency having jurisdiction by law over natural resources affected by a project. There are no trustee agencies for the proposed project.

1.5 Environmental Review Process

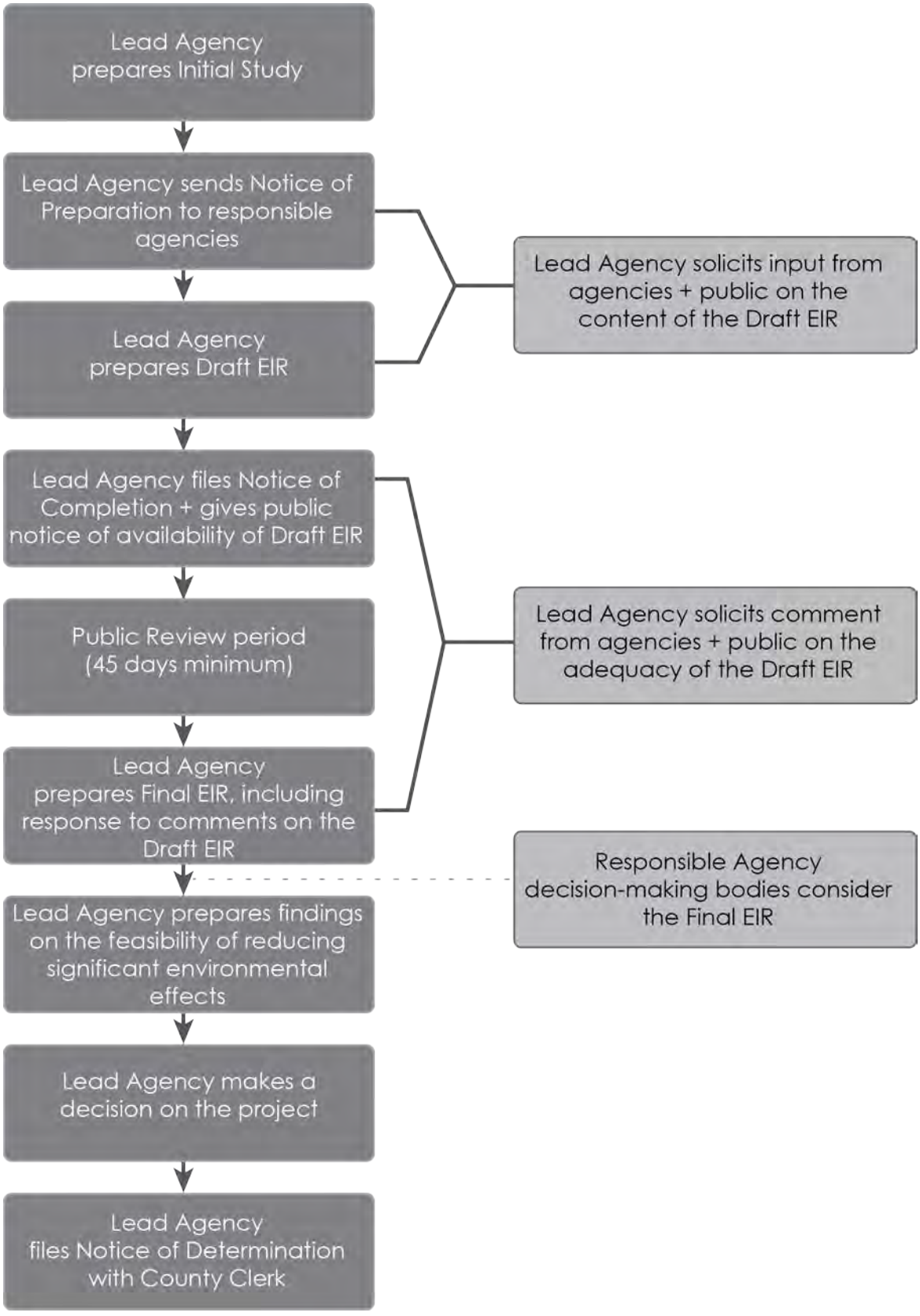
The environmental impact review process, as required under CEQA, is summarized below and illustrated in Figure 1-1. The steps are presented in sequential order.

1. **Notice of Preparation (NOP)**. After deciding that an EIR is required, the lead agency (County of Ventura) must file a NOP soliciting input on the EIR scope to the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (CEQA Guidelines Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days.
2. **Draft EIR Prepared.** The Draft EIR must contain: (1) table of contents or index; (2) summary; (3) project description; (4) environmental setting; (5) discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); (6) a discussion of alternatives; (7) mitigation measures; and (8) discussion of irreversible changes.
3. **Notice of Completion (NOC).** The lead agency must file an NOC with the State Clearinghouse when it completes a Draft EIR and prepare a Public Notice of Availability of a Draft EIR. The lead agency must place the NOC in the County Clerk's office for 30 days (Public Resources Code Section 21092) and send a copy of the NOC to anyone requesting it (CEQA Guidelines Section 15087). Additionally, public notice of Draft EIR availability must be given through at least one of the following procedures: (1) publication in a newspaper of general circulation; (2) posting on

and off the project site; and (3) direct mailing to owners and occupants of contiguous properties. The lead agency must solicit input from other agencies and the public and respond in writing to all comments received (Public Resources Code Sections 21104 and 21253). The minimum public review period for a Draft EIR is 30 days. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days unless the State Clearinghouse approves a shorter period (Public Resources Code 21091).

4. **Final EIR.** A Final EIR must include: (1) the Draft EIR; (2) copies of comments received during public review; (3) list of persons and entities commenting; and (4) responses to comments.
5. **Certification of Final EIR.** Prior to making a decision on a proposed project, the lead agency must certify that: (1) the Final EIR has been completed in compliance with CEQA; (2) the Final EIR was presented to the decision-making body of the lead agency; and (3) the decision making body reviewed and considered the information in the Final EIR prior to approving a project (*CEQA Guidelines* Section 15090).
6. **Lead Agency Project Decision.** The lead agency may: (1) disapprove the project because of its significant environmental effects; (2) require changes to the project to reduce or avoid significant environmental effects; or (3) approve the project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (*CEQA Guidelines* Sections 15042 and 15043).
7. **Findings/Statement of Overriding Considerations**. For each significant impact of the project identified in the EIR, the lead agency must find, based on substantial evidence, that either: (1) the project has been changed to avoid or substantially reduce the magnitude of the impact; (2) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or (3) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (*CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.
8. **Mitigation Monitoring Reporting Program.** When the lead agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.
9. **Notice of Determination (NOD).** The lead agency must file a NOD after deciding to approve a project for which an EIR is prepared (*CEQA Guidelines* Section 15094). A local agency must file the NOD with the County Clerk. The NOD must be posted for 30 days and sent to anyone previously requesting notice. Posting of the NOD starts a 30-day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167[c]).

Figure 1-1 Environmental Review Process



2 Project Description

This section describes the proposed project, including the project applicant, the project site and surrounding land uses, major project characteristics, project objectives, and discretionary actions needed for approval.

2.1 Project Applicant

Somis Ranch Partners, LLC
P.O. Box 6045
Oxnard, California 93030
(805) 310-5070

2.2 Lead Agency Contact Person

Justin Bertoline, Senior Planner
Ventura County Resource Management Agency, Planning Division
800 South Victoria Avenue, L# 1740
Ventura, California 93009-1740
(805) 654-2466

2.3 Project Location

The approximately 36.4-acre project site is located 2789 Somis Road on Assessor Parcel Number (APN) 156-0-180-48. The project site is situated just north of the intersection of Somis Road/Las Posas Road, immediately north of and adjacent to the City of Camarillo (City), and outside the City's sphere of influence and the Camarillo Urban Restriction Boundary (CURB). Figure 2-1 shows the regional location of the project site.

The project site is currently predominantly used for agricultural production. The project site also currently contains two residences and ancillary agricultural buildings located immediately south of Bell Ranch Road. An unpaved road provides access to the project site from Somis Road. The existing residential area covers approximately 2.7 acres (seven percent) of the project site. Figure 2-2 shows the location of the project site within the surrounding neighborhood.

The project site is regionally accessible from U.S. Highway 101 and locally accessible from the south via State Route (SR) 34 (i.e., North Lewis Road, which turns into Somis Road when traveling north from U.S. Highway 101) or from the north via SR 118 (i.e., East Los Angeles Avenue) to Somis Road.

2.4 Existing Site Characteristics

2.4.1 Existing Land Uses on the Project Site

The project site is currently predominantly used for agricultural production. The project site also currently contains two residences and ancillary agricultural buildings located immediately south of Bell Ranch Road. An unpaved road provides access to the project site from Somis Road (Figure 2-2).

Figure 2-1 Regional Location

Imagery provided by Esri and its licensors © 2020.

Project Location

N

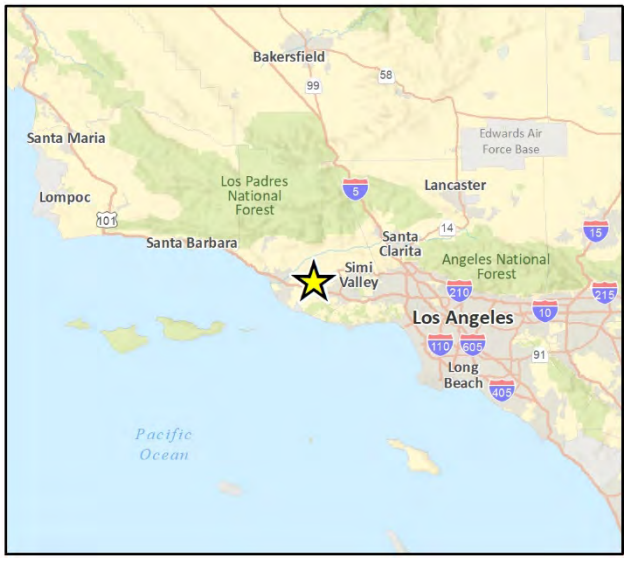


Figure 2-2 Project Site Location

Imagery provided by Microsoft Bing and its licensors © 2020.

2.4.2 Surrounding Land Uses

The project site is bordered by agricultural lands to the northwest, north, and east. The southeastern edge of the project site abuts Somis Road, across which lies additional agricultural land.

Immediately southwest of the project site is the location of the City's planned North Pleasant Valley Groundwater Desalter Facility (Desalter Facility). It is estimated the construction of the Desalter Facility will continue through mid-2021. Operation of the Desalter Facility is expected to begin in late 2021 (City of Camarillo 2019, 2020). The 4.6-acre Desalter Facility site was annexed from the proposed project parcel (under the County's jurisdiction) into the City of Camarillo in December 2017, with subsequent approval of the Ventura Local Agency Formation Commission in April 2018.

The Oxnard Union High School District's Rancho Campana High School, for grades 9 through 12, is located approximately 300 feet west of the project site at 4235 Mar Vista Drive. A religious institution is located at 4345 Las Posas Road, approximately 450 feet southwest of the project site. The City of Camarillo Public Library is located at 4101 Las Posas Road, just west of the adjacent religious institution and approximately 850 feet southwest of the project site. Figure 2-2 shows the locations of surrounding land uses.

2.4.3 Land Use and Zoning Designations on the Project Site

The General Plan land use designation of the project site is Agricultural (County of Ventura 2019) and the zoning designation of the site is AE (Agricultural Exclusive), which has a 40-acre minimum lot size (County of Ventura 2020). However, Section 8103-2.7 of the Ventura County Ordinance Code states, "Parcels of less than the prescribed minimum lot area may be allowed for Farmworker Housing Complexes on land zoned AE within or adjacent to a city Sphere of Influence, provided the remaining non-farmworker housing complex parcel is a minimum of 10 acres" (County of Ventura 2020).

The proposed project is an allowed use under the Ventura County Non-Coastal Zoning Ordinance, as the project would involve the construction and occupation of a farmworker housing complex on approximately 18.43 acres of the project site and continuation of agricultural use on a 17.93-acre continued agricultural use parcel.

2.5 Project Characteristics

The proposed project would involve the construction and operation of an affordable multi-family housing complex for farmworkers (housing complex) on three proposed parcels totaling 18.43 acres and the continuation of agricultural use on a 17.93-acre continued agricultural use parcel. The proposed housing complex would include 360 dwelling units (apartments) and associated amenities. The project also would include the construction of a community wastewater treatment facility (CWWTF), which would serve the proposed housing complex and produce recycled water for irrigation of adjacent agricultural fields. The proposed project would not involve demolition or alteration of the existing on-site residences and agricultural buildings. Discussion of the details of the proposed project follows.

2.5.1 Housing Complex

The proposed 360-unit housing complex would include a variety of one-, two-, and three-bedroom apartments, as well as associated amenities such as community centers, play fields, tot

lots/playgrounds, a basketball court, a community garden area, and a network of meandering pedestrian walkways (RRM Design Group 2019). The majority of the apartment buildings would be three stories in height, with a maximum building height of 35.0 feet from ground level. The housing complex would provide the required number of off-street parking spaces, as required by Article 8 of the Ventura County Non-Coastal Zoning Ordinance (NCZO). In addition, 379 bicycle parking spaces would be available throughout the complex. Internal pathways would provide pedestrian circulation throughout the housing complex. The housing complex would also include a landscape agricultural buffer around the perimeter of the development site to minimize potential effects between the proposed housing complex and adjacent land uses. Table 2-1 summarizes the general characteristics of the housing complex.

Table 2-1 General Characteristics of Proposed Housing Complex

General Information	
Address	2789 Somis Road, Somis, Ventura County, California 93066
APN	156-0-180-48
Lot Area	802,810 sf (18.43 acres)
Proposed Site Coverage	**Square Footage**
Buildings	153,974 sf (19%)
Parking	229,012 sf (29%)
Hardscaping	24,364 sf (3%)
Landscaping	395,460 sf (49%)
Total	**802,810 sf (100%)**

sf = square feet

2.5.1.1 Residential Buildings and Dwelling Units

The housing complex would include a total of 30 apartment buildings with six building types. In addition to the six residential building types, an additional four residential units would be included in each of the proposed community center buildings. The architectural style of the residential buildings would be “Spanish Colonial.” Dwelling units would range in size from 576 to 1,104 gross square feet. Table 2-2 includes a summary of the different types of residential buildings and dwelling units within the housing complex. Figure 2-3a and Figure 2-3b show the site plan of the proposed housing complex. Figure 2-4 shows the typical elevations of three-story residential buildings and Figure 2-5 shows the typical elevations of the two-story community centers.

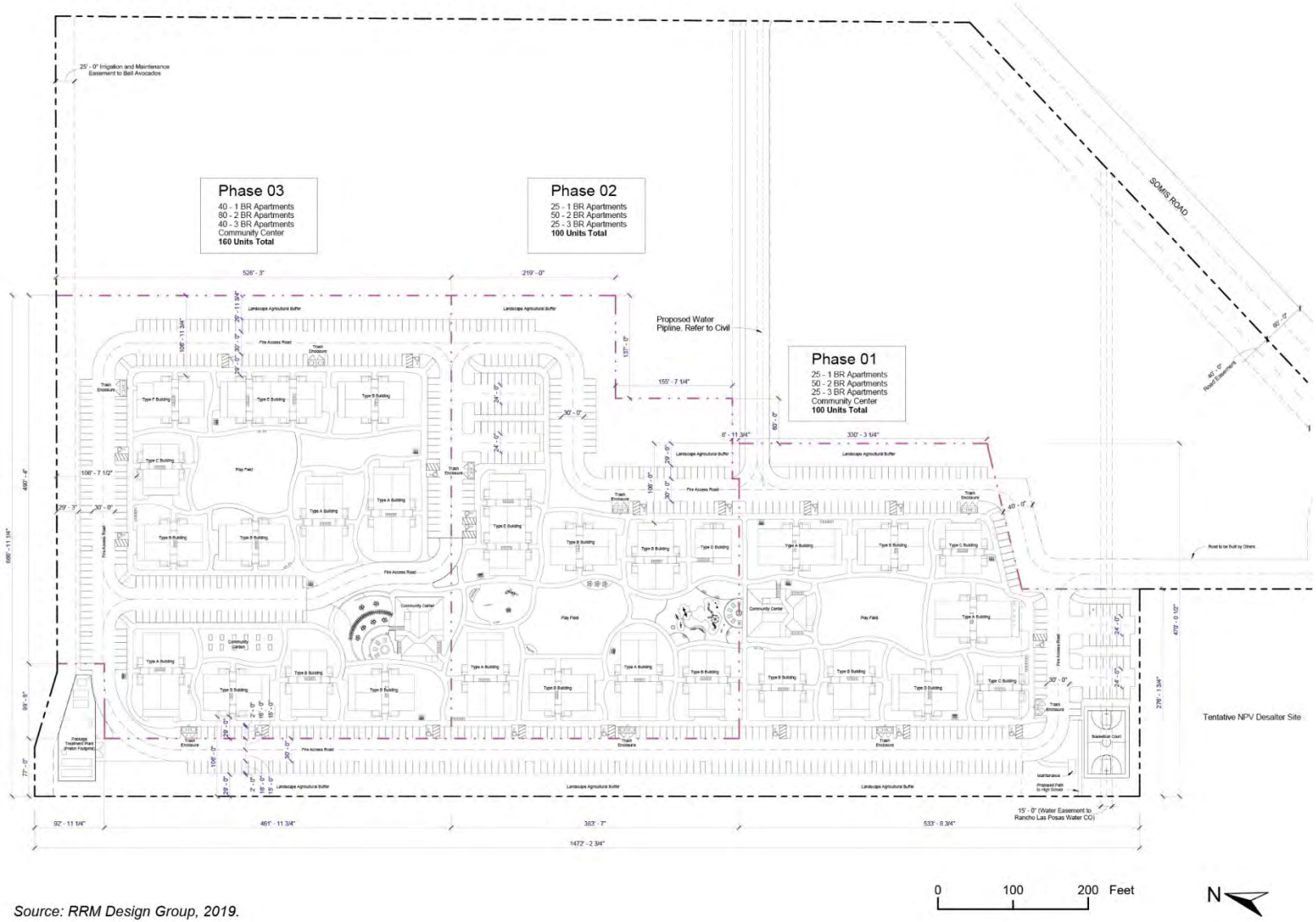
Table 2-2 Summary of Types of Residential Buildings and Dwelling Units in Proposed Housing Complex

Proposed Residential Building Types	No. of Buildings per Type in Complex	No. of Dwelling Units per Building Type in Complex				No. of Stories (Max. Building Height)
		1-BR/1-BA (576 gross sf)	2-BR/1-BA (816 gross sf)	3-BR/2-BA (1,104 gross sf)	Total DUs per Building Type	
Building Type A	7			12	12	3 (35.0 ft)
Building Type B	14		12		12	3 (35.0 ft)
Building Type C	3	12			12	3 (35.0 ft)
Building Type D	1	1	2	1	4	2 (27.0 ft)
Building Type E	2	24			48	3 (35.0 ft)
Building Type F	1	3	6	3	12	3 (35.0 ft)
Community Center Buildings with DUs	2	1	2	1	4	2 (28.4 ft)
Summary of Buildings/Dwelling Units						
Total Residential Buildings				30		
No. of DUs in Complex						
Total 1-BR DUs				90		
Total 2-BR DUs				180		
Total 3-BR DUs				90		
Grand Total DUs				**360**		

BA = bathroom(s); BR = bedroom(s); DU = dwelling unit(s); ft = feet; sf = square feet

Figure 2-3a Project Site Plan

Figure 2-3b Housing Complex Site Plan



Source: RRM Design Group, 2019.

Figure 2-4 Typical Three-Story Residential Building Elevations

1 Building A Front

2 Building A Side

0 10 20 Feet

Source: RRM Design Group, 2019.

Figure 2-5 Typical Community Center Building Elevations

1 Community Center Front

2 Community Center Back

4 Community Center Side2

3 Community Center Side1

0 15 30 Feet

Source: RRM Design Group, 2019.

2.5.1.2 Vehicular Access and Parking

The housing complex would be accessible from two driveways from Somis Road. The southern driveway would be located within an existing 40-foot-wide easement over a road built by others that provides access to the City's Desalter Facility site. The southern driveway would include a bicycle/pedestrian pathway. The eastern driveway would follow a proposed 50-foot-wide easement north of the existing Bell Ranch residences and agricultural buildings and would provide access to the housing complex from the east. The eastern driveway would be constructed as part of the proposed project and would include an off-site portion of the driveway to connect the housing complex to Somis Road. The off-site portion of the driveway would occur on a 0.42-acre area east of the project site. The driveways have been designed to meet the Ventura County Fire Department's minimum design standards and requirements. The housing complex would also include an internal, looping access road that has been designed to meet Ventura County Fire Department's fire aerial apparatus standards. Fire access roads would be modified for each construction phase of the project. Each implementation phase would meet Ventura County Fire Department's fire aerial apparatus standards.

Under Article 8 of the Ventura County NCZO, the housing complex would be required to provide 654 parking spaces, including 19 accessible spaces for persons with disabilities. The proposed housing complex would include 655 parking spaces, 19 of which would be designated as accessible spaces. In addition, 379 bicycle parking spaces would be available throughout the complex.

2.5.1.3 Utilities

The housing complex would be served potable water by Ventura County Water Works District No. 19 (Water District). The project site is currently located in the Water District's service area. On May 8, 2019, the County of Ventura issued a Water Availability Letter for the proposed project, confirming the availability of water supplies from the Water District.

Wastewater (sewage) generated by the housing complex would be treated by the proposed CWWTF (see Section 2.5.2, Community Wastewater Treatment Facility, for details regarding the CWWTF).

The housing complex, including the CWWTF, would require electrical service, which would be provided by Southern California Edison. Cable and telephone service would be provided to the housing complex by Spectrum. No natural gas service would be provided to or required by the housing complex.

2.5.1.4 Landscaping, Stormwater Detention, and Hardscaping

The residential buildings would overlook core community spaces such as play fields, a community garden, playgrounds, and community centers. Internal meandering pathways would provide pedestrian circulation throughout the housing complex.

Figure 2-6 shows the landscape plan for the housing complex. The housing complex would be surrounded by a 29-foot-wide landscaped area along the western and eastern perimeters, which would serve as a buffer between the proposed housing complex and existing surrounding agricultural operations. Additionally, the housing complex would involve landscaped areas throughout the complex, totaling approximately 281,000 square feet. The landscaping plant palette would be comprised of drought-tolerant tree and shrub species. A weather-sensing "smart controller" would be used to monitor irrigation water and manage daily water consumption.

Landscaping would be irrigated using bubblers, drip irrigation, or other water-efficient irrigation systems.

Figure 2-6 Landscape Plan

Source: RRM Design Group, 2019.

As discussed in the Preliminary Hydrology Memo (Appendix I), the housing complex would include two stormwater detention basins on the east side of the project site. Runoff from impervious surfaces within the housing complex would be directed toward one of the stormwater detention basins. Outflow from the basins would be released into an existing drainage channel along the western side of the project site.

2.5.1.5 Requirements and Verification Process for Residences

Affordable Housing Income Levels and Farmworker Housing Verification Process

The proposed project would consist of 100 percent affordable housing units. The project applicant intends for the proposed housing complex to serve individuals and families with lower incomes, including the subcategories of very low and extremely low incomes. Per the California Department of Housing and Community Development, "lower income" is defined as those who earn less than 80 percent of the local area median income (AMI). At the time of publication of this Draft EIR, the final affordability breakdown had not been determined. However, the project applicant tentatively estimates that the majority of apartments would be available to those earning 60 percent of the AMI or below. It is also anticipated that some apartments would be available to very low (30 to 50 percent of the AMI) and extremely low (0 to 30 percent of the AMI) income individuals/families.

Section 8107-41.1 of the Ventura County NCZO provides the farmworker employment criteria and states:

> In a Farmworker Housing Complex, dwelling units shall only be rented to… persons who are principally employed within the County of Ventura for activities associated with Crop and Orchard production (Sec. 8105-4) and all uses listed there under. A qualified farmworker who has been renting a dwelling unit in a Farmworker Housing Complex and who subsequently retires or becomes disabled, may continue to reside in the dwelling unit. Members of the farmworker's household, if any, may also occupy said dwelling unit.

Accordingly, to qualify for an apartment in the proposed housing complex, potential residents would be required to demonstrate that they either: (1) earn at least 51 percent of their annual income from qualifying agriculture; and/or (2) are employed in agriculture for at least 51 percent of the total days employed on an annual basis.

The development would be managed by a qualified affordable housing provider that would be responsible for verifying resident incomes initially and annually. The housing complex would not be owned or controlled by any agricultural employers.

Density Bonus and Affordable Housing Incentive

Article 16 of the Ventura County NCZO and Government Code Section 65915 requires the County to provide incentives for affordable housing projects. The number of incentives is based on the affordability of the project, in addition to any waivers that may be necessary, consistent with Government Code Section 65915(e). Because the proposed housing complex would be 100 percent affordable, the project qualifies for three incentives, as well as a waiver of development standards that would physically preclude construction of the project at the permitted densities or with the incentives.

The types of incentives that can be granted for this project include:

A. A reduction in site development standards; and

B. Other regulatory incentives proposed by the Affordable Housing Developer or the County that result in identifiable, financially sufficient, and actual cost reductions.

In accordance with Sections 8116-3.1 and 8116-7 of the Ventura County NCZO, the proposed housing complex has requested the following Affordable Housing Incentives:

1. An increase in maximum building lot coverage from 5 percent, as established in Figure 3.4 of the General Plan Goals, Policies, and Programs, to 25 percent.

   Justification: By increasing maximum building lot coverage to 25 percent, the density of the proposed housing complex would be financially feasible.

2. A reduction in the side yard setbacks for structures 25 to 35 feet in height from 15 feet, as established in Section 8106-1.1 of the Ventura County NCZO, to 10 feet.

   Justification: By reducing side yard setback requirements for two- and three-story structures from 15 feet to 10 feet, the project applicant would avoid potentially costly revisions or modifications to the standard building types proposed within the housing complex, resulting in a substantial cost savings, as several proposed three-story buildings (35 feet in height) would be located within 10 to 15 feet of side yard property lines.

3. A reduction and or waiver of Quimby Fees, as required by Section 8209-6 of the Ventura County Subdivision Ordinance.

   Justification: A reduction or waiver of Quimby Fees would substantially reduce the financial burden on the project applicant, thus resulting in a housing complex that would be fiscally feasible. Additionally, the project may be entitled to an offset to the Quimby Fees, based on the amount of proposed open space areas (i.e., play fields), playgrounds, and other recreational areas/facilities within the housing complex, thus reducing the need for off-site park/recreational areas.

Proposed Development Funding

Funding for the proposed affordable housing complex is anticipated through a variety of potential sources. Such sources may due to availability and anticipated timing of construction for each of the three proposed phases (see "Construction" below regarding the construction phases). Anticipated funding sources may include the California Tax Credit Allocation Committee, Tax Exempt Bonds and Four Percent Low-Income Housing Tax Credits, the Federal Home Loan Bank Affordable Housing Program, the California Department of Housing and Community Development's Multi-Family Housing Program, the Joe Serna Jr. Farmworker Housing Grant Program, Ventura County's Community Development Block Grant and Home Investment Partnerships Program funds, and/or other sources.

2.5.2 Community Wastewater Treatment Facility

Because the project site is outside the Camarillo Sanitary District service area, the project includes on-site wastewater treatment. The housing complex would include the construction and operation of a CWWTF on an approximately 5,000- to 7,000-square-foot area in the northwest corner of the project site. The proposed CWWTF would include a conventional membrane bioreactor package with a footprint of approximately 1,488 square feet.[2] The CWWTF would be designed to treat

[2] The proposed CWWTF is an MEMPAC-M model, such as those manufactured by Cloacina in Arroyo Grande, California.

wastewater (sewage) generated by the housing complex to tertiary treatment standards. The on-site CWWTF would treat all wastewater generated by the housing complex. At full occupancy of the housing complex, the CWWTF would treat an estimated average daily flow of 99,000 gallons of wastewater per day (Water Resource Engineering Associates [WREA] 2019).

Collection of on-site wastewater (influent) would occur through gravity system sewer drainage pipelines. The gravity collector would terminate at a concrete shaft wet-well in a lift station. From the lift station, an influent force main would discharge to a 2-millimeter influent screen. Screened influent would discharge to the transfer chamber, where influent would be pumped to two 25,000-gallon equalization storage basins. Screened influent would be returned to the anoxic chamber (denitrification) and mixed with return activated sludge to the anoxic chamber, which includes monitoring equipment such as a dissolved oxygen sensor. From the anoxic chamber, effluent would enter the aeration chamber by gravity, where effluent would be monitored by dissolved oxygen and suspended solids sensors (WREA 2019).

Activated sludge from the aeration chamber would be transferred to the membrane chambers at four times the average daily flow rate, or approximately 275 gallons per minute. The CWWTF would utilize Fibracast, FibrePlate TM FPC500 membrane cassettes. Activated sludge would be returned via gravity to the anoxic chamber, where activated sludge would be mixed with raw influent. Membrane permeate would discharge through in-line ultraviolet (UV) disinfection units prior to entering the clear well chamber (WREA 2019).

Effluent stored in the clear well chamber would be pumped through each membrane cassette to perform a Backflash or Clean in Place, which would be conducted at routine intervals, according to the manufacturer's requirements. Biosolid concentration would be monitored by a suspended solids meter located in the aeration chamber. Sludge wasting pumps would remove a portion of the activated sludge to two 12,000-gallon sludge storage tanks for appropriate removal and off-site disposal at a facility licensed to accept such waste (WREA 2019).

The CWWTF site would be enclosed by a masonry block wall, which would reduce noise generated by the CWWTF (WREA 2019).

The proposed CWWTF would be active (i.e., via aeration treatment method); therefore, the only potential source of undesirable odors would be at the inlet to the facility. Air scrubbers attached to the anoxic chamber would incorporate advanced odor control technology. Specifically, the air scrubbers would minimize odors from hydrogen sulfide, mercaptans, ammonia, amines, and other odors generated in wastewater collection and treatment systems (WREA 2019).

The CWWTF would be designed to treat wastewater generated on-site to meet Disinfected Tertiary Recycled Water requirements in accordance with California Code of Regulations (CCR) Title 22. Treated wastewater effluent, referred to as "recycled water," would be beneficially reused for off-site agricultural irrigation. The project site is situated adjacent to approximately 70 acres of orchards. Currently, the adjacent orchards are irrigated with relatively low-quality groundwater pumped from a private well. If the proposed project is approved and built, higher-quality recycled water generated by the CWWTF would be blended with pumped groundwater to improve the quality of agricultural irrigation water (WREA 2019).

Recycled water generated by the CWWTF would be temporarily stored in an approximately 25,000-gallon recycled water/irrigation water storage tank. The CWWTF would also include pump stations and recycled water pipelines that would deliver recycled water to off-site irrigation systems. Excess recycled water and treated wastewater effluent not meeting recycled water quality standards would be dispersed through a series of underground seepage pits along the western boundary of

the housing complex. Biosolids generated by the CWWTF would be stored on-site in two approximately 12,000-gallon sludge storage tanks until the biosolids are transported for disposal at a facility licensed to accept this type of waste (WREA 2019).

Per Section 8204-8 of the County of Ventura Subdivision Ordinance, a public sewer agency is required to operate the CWWTF. The Ventura Regional Sanitation District (VRSD) would be responsible for operation of the CWWTF.

2.5.3 Continued Agricultural Use Parcel

Under the proposed project, the eastern portion of the project site would continue to operate as an agricultural field for crops on a 17.93-acre continued agricultural use parcel. The proposed project would not result in any physical changes to the continued agricultural use parcel.

2.5.4 Construction

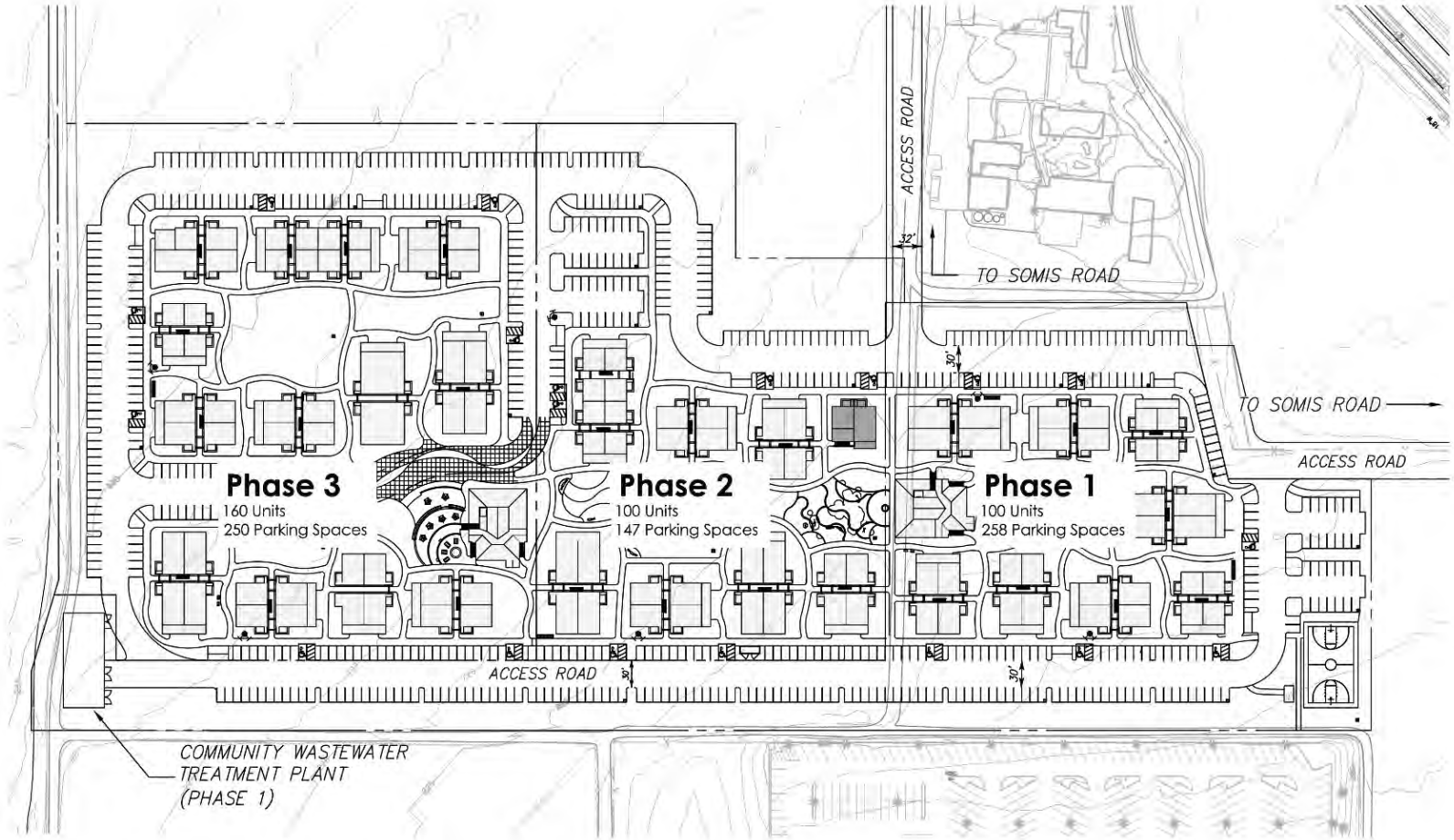
The housing complex would be constructed in three phases. The CWWTF would be constructed as part of Phase 1 and would be expanded to accommodate the needs of the housing complex as additional apartments are constructed during Phases 2 and 3. Figure 2-7 illustrates the proposed phasing plan. The phases of the housing complex would include the following features:

- **Phase 1:** Phase 1 would include 100 dwelling units, comprised of 25 one-bedroom apartments, 50 two-bedroom apartments, and 25 three-bedroom apartments. Proposed amenities associated with Phase 1 would include a community center building, a play field, a basketball court, landscaping, pedestrian walkways, trash enclosures, and 182 parking spaces (including 6 accessible spaces).
- **Phase 2:** Phase 2 would also include 100 dwelling units, comprised of 25 one-bedroom apartments, 50 two-bedroom apartments, and 25 three-bedroom apartments. Proposed amenities associated with Phase 2 would include a play field, tot lots/playgrounds, landscaping, pedestrian walkways, trash enclosures, and 182 parking spaces (including 6 accessible spaces).
- **Phase 3:** Phase 3 would include 160 dwelling units, comprised of 40 one-bedroom apartments, 80 two-bedroom apartments, and 40 three-bedroom apartments. Proposed amenities associated with Phase 3 would include a community center building, a play field, a community garden area, landscaping, pedestrian walkways, trash enclosures, and 290 parking spaces (7 accessible spaces).

Construction of Phase 1 is anticipated to begin in August 2021. Phases 2 and 3 would be constructed as needed, once the previous phase of the housing complex is occupied. Construction of Phases 1, 2, and 3 of the housing complex is expected to take approximately eight, six, and eight months, respectively.

Construction activities for Phases 1, 2, and 3 would require a total of approximately 1,500 cubic yards (cy) of cut soil and 35,100 cy of fill soil, resulting in the import of approximately 33,600 cy of soil to the project site. No soil export would be necessary. Construction staging and construction work parking would occur on the project site.

Figure 2-7 Housing Complex Phasing Plan



Source: Jensen Design & Survey Inc., 2019.

2.6 Project Objectives

The objectives of the proposed project are as follows:

1. Develop a financially viable affordable residential community for lower-income farmworkers and their families in Ventura County to accommodate broad market needs.
2. Provide affordable housing units for farmworkers that will help meet the identified need assigned to Ventura County pursuant to California State Law and adopted in the County's Housing Element.
3. Support the local agricultural industry by providing local farmworker housing proximate to agricultural operations in Ventura County.
4. Provide a variety of apartment sizes to meet various family sizes.
5. Arrange the proposed apartment buildings and on-site amenities in a manner that is logical and promotes efficient use of the housing complex property.
6. Provide recreational opportunities for future project residents with on-site play fields, tot lots/playgrounds, active recreation opportunities, a community garden area, meeting rooms, and a network of meandering pedestrian walkways.
7. Minimize proposed building footprints and other impervious surfaces to accommodate on-site landscaped common space for future project residents.
8. Design an efficient internal circulation system that is safe for pedestrians and bicyclists.
9. Locate affordable housing in a location that provides convenient access to nearby services such as library, schools, commercial centers, and religious institutions.
10. Develop the project site in a manner that would not adversely affect neighboring land uses or infrastructure, including with regard to:
    - Water and sanitation services;
    - Land use compatibility; and
    - The scale of the project.
11. Develop the project site in a manner that would minimize affects from neighboring land uses to the proposed housing complex and future project residents.
12. Avoid modification to the existing Bell Ranch residences and agricultural buildings.

2.7 Required Approvals

The proposed project would require the discretionary approval of the County of Ventura. Pursuant to NCZO (§§8105-4 and 8111-1.2 et seq.), the Planning Commission is the decision-maker for the requested Tentative Parcel Map (TPM) and Planned Development Permit (PD Permit) and the Board of Supervisors are the decision-maker for the requested Conditional Use Permit (CUP) for the CWWTF. However, these decisions can be consolidated to streamline the decision-making process. Pursuant to NCZO §8111-4.1.1, the Planning Director has the authority to defer the final decision-making authority to the Board of Supervisors if the cause is deemed justifiable by the Planning Director.

Table 2-3 includes the approvals/permits required for the proposed project.

Table 2-3 Required Approvals/Permits

Agency	Approval/Permit Type
County of Ventura	Tentative Parcel Map (TPM) to authorize the four-lot subdivision of an existing legal lot
	Conditional Use Permit (CUP) to authorize the construction of the CWWTF
	Planned Development (PD) Permit to authorize the construction of the 360-unit farmworker housing complex
	System Construction Permitting, Plumbing, Electrical, and Structural Permits and Approvals (for the CWWTF)
	Grading Permit(s)
	Various access and utilities easements to be recorded by others (including for the proposed southern and eastern access roads)
Los Angeles Regional Water Quality Control Board (RWQCB)	Water Reclamation Requirement (WRR)[1] and waste discharge requirements (WDR)[2,3] permits and approval to construct
California State Water Resources Control Board (SWRCB)	WRR[1]

1. The "beneficial reuse" of the recycled water for agricultural irrigation requires a WRR and an "approval to construct" from RWQCB.
2. The application for approval includes, but is not limited to, system plans and calculations, percolation test results showing soils suitability for subsurface dispersal, demonstration that dispersal field meets setback requirements, and information regarding the water supply system.
3. Ongoing operation and reporting: As a requirement of the WDR, a designated site supervisor would be responsible for the maintenance of the CWWTF and including sampling and analytical procedures for reporting for proper treatment system performance. The CWWTF owner is required to retain the services of a Certified Operator to perform the overall management of the CWWTF.

3 Environmental Setting

This section provides a general overview of the environmental setting for the proposed project. More detailed descriptions of the environmental setting for each environmental issue area can be found in Section 4, *Environmental Impact Analysis*.

3.1 Regional Setting

The project site is located in the County of Ventura, immediately north of and adjacent to the City of Camarillo, and outside the City's sphere of influence and CURB. The project site is approximately 11 miles east of the County of Ventura government center in the city of Ventura and 3 miles northeast of the civic center of the City of Camarillo. The site is just north of the intersection of Somis Road and Las Posas Road.

South of the project site, a system of roadways, including arterials, collectors, and local streets, provide vehicular access throughout the City of Camarillo. North of the project site is a system of two-lane and four-lane highways and County local roads. Nearby major roadways include Somis Road/SR 34, Las Posas Road, and East Los Angeles Avenue/SR 118. The closest freeway is U.S. Highway 101, which is located two miles south of the project site.

The project site is located approximately 11 miles inland from the Pacific Ocean. The climate and the coastal influence produce moderate temperatures year-round, with rainfall concentrated in the winter months. Although air quality in the area has steadily improved in recent years, the region is identified as being in nonattainment for ozone (smog) and particulate matter less than 10 microns in diameter (PM_{10}).

3.2 Project Site Setting

As shown in Figure 2-2 in Section 2, *Project Description,* the project site and surrounding properties are predominantly used for agricultural production. The project site is bordered by agricultural lands to the northwest, north, and east. The southeastern edge of the project site abuts Somis Road, across which lies additional agricultural land. The Oxnard Union High School District's Rancho Campana High School is located immediately west of the project site and a religious institution is located immediately southwest of the project site.

The project site is currently used for agricultural production, with ancillary residences and agricultural buildings located immediately south of Bell Ranch Road. The project site has a General Plan land use designation of Agricultural and a zoning designation of Agricultural Exclusive (AE). Uses permitted in the AE designation seek to preserve and protect agriculture and commercial agriculture uses. Farmworker housing is an allowed use in the AE zone pursuant to Section 8103-2.7 of the Ventura County Ordinance Code.

3.3 Cumulative Development

In addition to the specific impacts of individual projects, CEQA requires EIRs to consider potential cumulative impacts. CEQA defines "cumulative impacts" as two or more individual impacts that, when considered together, are substantial or will compound other environmental impacts.

Cumulative impacts are the combined changes in the environment that result from the incremental impact of development of the proposed project and other nearby projects. For example, noise impacts of two nearby projects may be less than significant when analyzed separately, but could be significant when analyzed together. Cumulative impact analysis allows the EIR to provide a reasonable forecast of future environmental conditions and can more accurately gauge the effects of a series of projects.

CEQA requires cumulative impact analysis in EIRs to consider either a list of planned and pending projects that may contribute to cumulative effects or a forecast of future development potential. Currently planned and pending projects in the County of Ventura and surrounding areas, including the City of Camarillo, are listed in Table 3-1. The locations of the cumulative projects are shown on Figure 3-1. These projects are considered in the cumulative analyses in Section 4, *Environmental Impact Analysis*.

Table 3-1 Cumulative Projects List

Project No.	Case No.[1]	Project Location[2]	Land Use
City of Camarillo			
1	CPD-77M(5)	4444 Central Ave	Hotel conversion, renovation, and minor addition
2	IPD-403	950 W. Verdulera St	New industrial building
3	IPD-385M(1)	South side of Verdulera St, 175' west of W. Ventura Blvd	Architectural modification and expansion
4	RPD-195, TT-5671M(3)	Northwest corner of U.S. Highway 101 and Springville Drive	Single-family residential
6	CUP-350	Southwest corner of Ponderosa Drive and Camino Tierra Santa	Mixed-use rental
6	CUP-350	Southwest corner of Ponderosa Dr and Camino Tierra Santa (Springville)	Mixed use
7	TT-5903, RPD-177	South side of Ponderosa Drive between Camino Tierra Santa and Earl Joseph Drive	Condominiums
8	CPD-226M(3)	Northeast corner of W. Ventura Blvd and Springville Dr	Commercial center
9	CUP-334	South of W. Ventura Blvd East of Springville Dr	Bowling alley and ice rink
10	CUP-403	Crestview Estates/Las Posas Hills on Crestview Ave	Well Pump and Pump House
11	IPD-404	375 Willis Ave	Energy storage facility
12	CUP-402	25 Las Posas Rd	New wireless facility in a tower
13	CPD-245	301 E. Daily Dr	Automated carwash
14	CUP-384/ CPD-246	Northeast corner of Las Posas Rd and Ventura Blvd	Hotel and conference center
15	IPD-398 T-5890	South side of Camarillo Center Dr, between Las Posas Rd and Factory Stores Dr	Multi-tenant industrial (four condo buildings)
16	CPD-5M(27)	323 Carmen Dr	New drive-thru building

Project No.	Case No.[1]	Project Location[2]	Land Use
17	LD-537, RPD-199	Southerly terminus of Barcelona Street	Four single-family residential lots
18	CPD-2M(3)	1641 Daily Dr	Façade remodel
19	CUP-330	2024 Ventura Boulevard	Mixed-use (one low and 22 moderate income units)
19	CUP-330	2024 Ventura Blvd between Cedar and Oak Streets (Old Town)	Mixed use
20	CUP-392	2275 Las Posas Rd	New roof-mounted wireless facility
21	CUP-391	99 South Glenn Drive	Mixed-use, 12 apartments
21	CUP-391	99 South Glenn Dr	Mixed use, 12 apartments, 2 retail spaces
22	RPD-202	Southeast corner of Glenn Drive and Chapel Drive	Rental townhomes (one low income)
23	CUP-397	2255 Pleasant Valley Rd, Unit K	Dog and cat rescue center
24	LD-544, RPD-203	2521 Barry Street	Residential (two low income)
25	IPD-5M(1)	575 Dawson Dr	Addition of new elevator
26	TT-5969, RPD-196	Northeast corner of Pleasant Valley Road and Lewis Road	285 for-sale townhomes (includes 29 moderate income units)
27	CUP-369	Northeast corner of Pleasant Valley Road and Lewis Road	24 mixed-use apartments (includes three low income units)
27	CUP-369	Northeast corner of Pleasant Valley and Lewis Roads	24 mixed-use apartments (including 3 low income)
28	RPD-188	350 Lewis Road	Townhomes (includes nine moderate income units)
29	RPD-189M(2)	Park Drive between Petit Street and Westpark Court	Rental unit apartments
30	CUP-307M(2)	Between Village at the Park Drive and Westpark Court	Mixed-use rental
30	CPD-232M(2)	Northwest corner of Santa Rosa Rd and Oak Canyon Rd	Two office/retail buildings
31	CPD-236	Between Village at the Park Dr and Westpark Ct (Village at the Park)	Commercial mixed-use center
32	CPD-236M(1)	Between Village at the Park Dr and Westpark Ct (Village at the Park)	Two commercial pads
33	CUP-404	3201 Corte Malpaso, Unit 310	Wine production facility
34	IPD-53M(11)	3233 E. Mission Oaks Blvd	Demolition of office building, construction of new multi-tenant industrial
35	IPD-53M(9)	3233 E. Mission Oaks Blvd	Industrial building modification
36	IPD-405	South side of Calle Tecate west of Flynn Rd	New industrial building
37	LD-545	201 Flynn Rd	Subdivision of parcel into two parcels
38	CUP-379	2411 Ponderosa Dr	Desalter
40	CUP-401	1330 Flynn Rd, Unit E	Winery

Project No.	Case No.[1]	Project Location[2]	Land Use
41	CUP-387	4053 Calle Tesoro	New wireless facility
42	CUP-394	Northwest of the intersection of Las Posas and Lewis Rd	North Pleasant Valley Groundwater Desalter Facility
43	IPD-23M(25) TT-6015	4530 Adohr Ln	Façade renovations and eight new condo units
44	TT-5976, RPD-198	Northeast corner of Somis Road and Upland Road	281 senior, single- and multi-family residential
45	CPD-99M(4)/ CUP-381	4676 Adolfo Rd	Conversion of auto repair facility to a convenience store
47	LD-539	5151, 5153, 5155 Camino Ruiz	Land division
48	RPD-201	Southeast corner of Camino Ruiz and Verdugo Way	Rental apartments, mix of studio, one-, and two-bedroom units
50	IPD-396	West side of Camino Carillo, approximately 230' south of Verdugo Way	Industrial (one-unit building)
51	TT-5979	Terminus of Camino Carillo, west of Conejo Creek	Tentative Tract Map for Lots 4-7
52	CUP-312	5575 Santa Rosa Rd	Church (total of 31,240 sf in three phases)
54	IPD-390	Northeast corner of Camino Carillo and Camino Ruiz	Multi-tenant industrial (two buildings)
54	IPD-391	Southeast corner of Camino Carillo and Camino Ruiz	Multi-tenant industrial (two buildings)
54	IPD-392	Southeasterly terminus of Camino Carillo west of Conejo Creek	Multi-tenant industrial (two-unit building)
54	IPD-393	Southerly terminus of Camino Carillo west of Conejo Creek	Multi-tenant industrial (two-unit building)
54	IPD-394	Southerly terminus of Balboa Circle, west of Conejo Creek	Industrial (one-unit building)
54	IPD-395	West side of Balboa Circle at the end of the cul-de-sac	Multi-tenant industrial
56	RPD-204, TT-601	791 Camarillo Spring Road	248 senior for-sale residential units
58	CUP-371M(1)	795 Camarillo Springs Rd, Ste F	Modification to conditions of approval
County of Ventura			
59	PL19-0039	Alviso Drive	Replacement of water well infrastructure
60	PL19-0016	131 San Miguel Drive	Subdivision of one discrete legal lot into two residential lots
61	PL20-0007	540 Marissa Lane	Lot line adjustment between two residential parcels
62	PL19-0026	APN 2300063375	Agricultural storage yard
63	PL15-0058	723 Alosta Drive	Lot line adjustment between three residential lots
64	PL19-0099	3450 Pleasant Valley Road	Wireless telecommunications facility
65	LU10-0003	APN 2340060220	Extended use of existing hard rock mining operation and processing facility

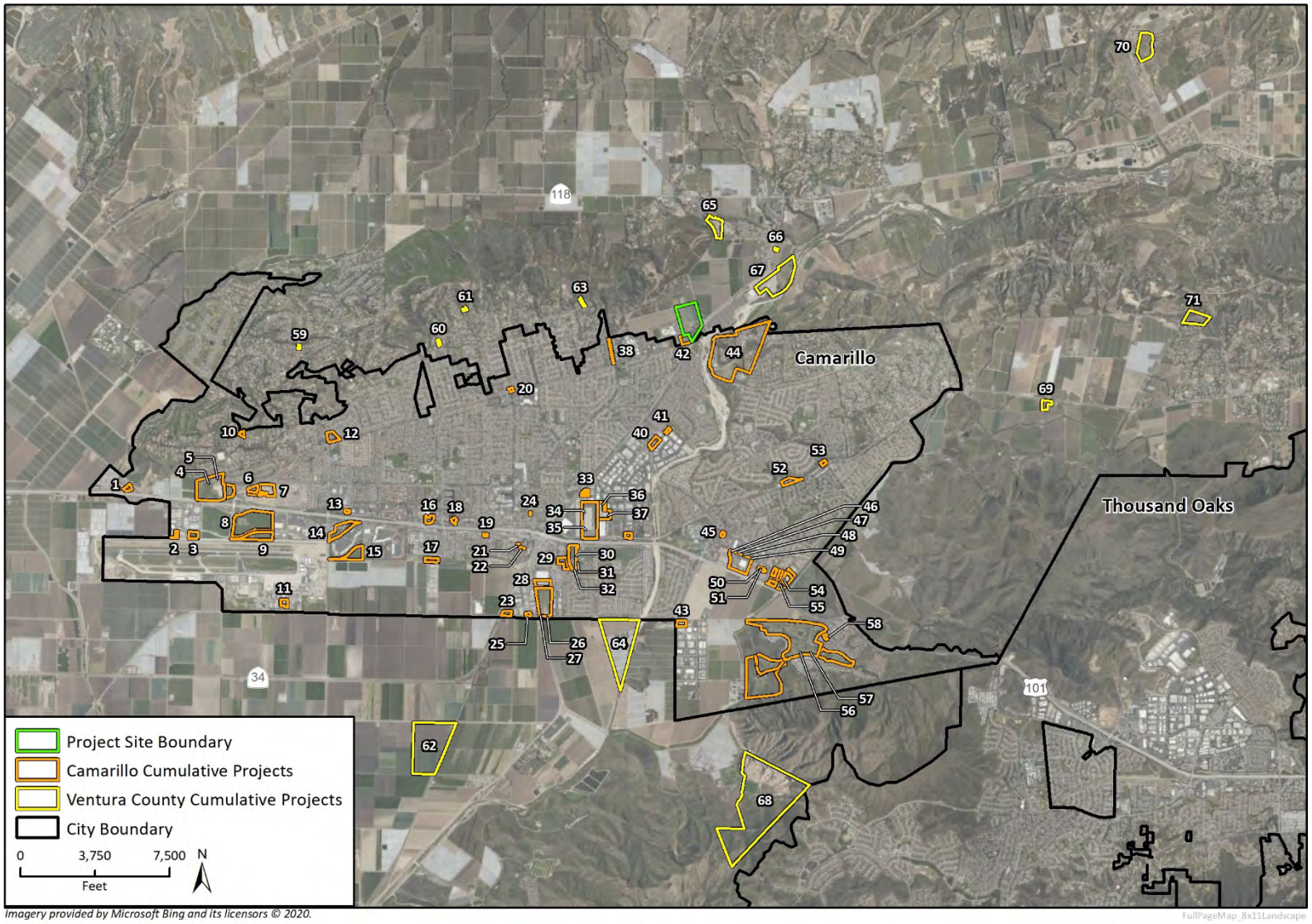
Project No.	Case No.[1]	Project Location[2]	Land Use
66	PL19-0078	3356 Somis Road	Fire Station No. 57 expansion and improvements
67	PL15-0014	3100 Somis Road	General Plan amendment for continued use, operation, and expansion of a wholesale lumber yard
68	PL20-0003	4800 North Street	Continued use of an existing wireless communications facility
69	PL19-0125	8626 Santa Rosa Road	Expanded use of existing outdoor event venue
70	PL18-0109	5500 Grimes Canyon Road	Dog kennel and sales facility
71	SD4410	APN 5500030020	Subdivision of five residential lots into 15 lots

[1] See Figure 3-1 for the locations of the cumulative projects in reference to the proposed project site.

[2] Assessor Parcel Numbers or a location description is provided when an address is not available.

Sources: County 2020 and City of Camarillo 2020

Figure 3-1 Cumulative Projects



4 Environmental Impact Analysis

This section discusses the possible environmental effects of the Somis Ranch Farmworker Housing Complex for the specific issue areas that were identified through the scoping process as having the potential to experience significant effects. A "significant effect" as defined by the *CEQA Guidelines* Section 15382:

> means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by the County and other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each impact under consideration for an issue area is separately listed in bold text with the discussion of the impact and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per Section 15093 of the *CEQA Guidelines*.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under Section 15091 of the *CEQA Guidelines*.
- **Less than Significant.** An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. Mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a list of mitigation measures (if required) and the residual effects or level of significance remaining after implementation of the measure(s). In cases where implementation of the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a secondary impact. The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the proposed project in conjunction with other planned and pending developments in the area listed in Section 3, *Environmental Setting*.

The Executive Summary of this EIR summarizes all impacts and mitigation measures that apply to the proposed project.

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4.1 Air Quality

This section analyzes the effects of the proposed project on air quality. It considers both the temporary impacts relating to construction activity and potential long-term impacts associated with project operation. The analysis in this section is based in part on modeling using the California Emissions Estimator Model (CalEEMod); modeling outputs are included in Appendix C of this EIR.

4.1.1 Setting

4.1.1.1 Existing Air Quality Setting

Local Climate and Meteorology

The project site is located in the South Central Coast Air Basin (Basin), which covers San Luis Obispo, Santa Barbara, and Ventura counties. The Ventura County Air Pollution Control District (VCAPCD) monitors and regulates the local air quality in Ventura County and manages the Air Quality Management Plan (AQMP). The analysis presented in this section is based upon information found in the Ventura County Air Quality Assessment Guidelines, adopted by the VCAPCD in 2003.

Air quality is affected by stationary sources (e.g., industrial uses and oil and gas operations) and mobile sources (e.g., motor vehicles). Air quality at a given location is a function of several factors, including the quantity and type of pollutants emitted locally and regionally, and the dispersion rates of pollutants in the region. Primary factors affecting pollutant dispersion are wind speed and direction, atmospheric stability, temperature, the presence or absence of inversions, and topography. The project site is located in the southeastern portion of the Basin, which has moderate variability in temperatures, tempered by coastal processes. The air quality in the Basin is influenced by a wide range of emission sources, such as dense population centers, heavy vehicular traffic, industry, and weather.

Air Quality Standards

The U.S. Environmental Protection Agency (USEPA) has set primary national ambient air quality standards (NAAQS) for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), Particulate Matter (PM_{10}, $PM_{2.5}$), and lead (Pb). Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. In addition, California has established health-based ambient air quality standards (CAAQS) for these and other pollutants, some of which are more stringent than federal standards. Table 4.1-1 lists the current federal and state standards for regulated pollutants.

If the standards are met, the Basin is classified as being in "attainment." If the standards are not met, the Basin is classified as being in "nonattainment," and the local air pollution control district is required to develop strategies to meet the standards. According to the California Air Resources Board (CARB) Area Designation Maps, the project site is located in a region identified as being in nonattainment for ozone NAAQS and CAAQS and nonattainment for particulate matter less than 10 microns in diameter (PM_{10}) CAAQS (CARB 2019). In February 2017, the VCAPCD adopted the 2016 Ventura County AQMP, which provides a strategy for the attainment of federal ozone standards (VCAPCD 2017).

Table 4.1-1 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standards	California Standard
Ozone	1-Hour	-	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	24-Hour	-	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	-	20 $\mu g/m^3$
	24-Hour	150 $\mu g/m^3$	50 $\mu g/m^3$
$PM_{2.5}$	Annual	12 $\mu g/m^3$	12 $\mu g/m^3$
	24-Hour	35 $\mu g/m^3$	-
Lead	30-Day Average	-	1.5 $\mu g/m^3$
	3-Month Average	0.15 $\mu g/m^3$	-

ppm = parts per million, $\mu g/m^3$ = micrograms per cubic meter

Source: CARB 2016

Air Pollutants of Primary Concern

The federal and state clean air acts mandate the control and reduction of certain air pollutants. Under these laws, USEPA and CARB have established ambient air quality standards for certain "criteria" pollutants. Ambient air pollutant concentrations are affected by the rates and distributions of corresponding air pollutant emissions, and by the climate and topographic influences discussed above. A discussion of each primary criteria pollutant is provided below.

Ozone

Ozone is produced by a photochemical reaction (i.e., triggered by sunlight) between nitrogen oxides (NO_X) and reactive organic gases (ROG).[3] NO_X is formed during the combustion of fuels, while reactive organic gases are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it mostly occurs in substantial concentrations between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

[3] Organic compound precursors of ozone are routinely described by variations of three terms: hydrocarbons (HC), organic gases (OG), and organic compounds (OC). These terms are often modified by adjectives such as total, reactive, or volatile, and result in a rather confusing array of acronyms. Those important from an air quality perspective are: HC, THC (total hydrocarbons), RHC (reactive hydrocarbons), ROG (reactive organic gases), ROC (reactive organic compounds), and VOC (volatile organic compounds). VCAPCD uses the term ROC to denote organic precursors.

Carbon Monoxide

CO is an odorless, colorless gas and causes a number of health problems including fatigue, headache, confusion, and dizziness. The incomplete combustion of petroleum fuels in on-road vehicles and at power plants is a major cause of CO. CO is also produced during the winter from wood stoves and fireplaces. CO tends to dissipate rapidly into the atmosphere; consequently, violations of the state CO standards are associated generally with major roadway intersections during peak-hour traffic conditions.

Localized CO "hotspots" can occur at intersections with heavy peak-hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high that the local CO concentration exceeds the NAAQS of 35.0 parts per million (ppm) or the CAAQS of 20.0 ppm.

Nitrogen Dioxide

Nitrogen dioxide (NO_2) is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. Nitric oxide is the principal form of nitrogen oxide produced by combustion, but nitric oxide reacts rapidly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. Nitrogen dioxide is an acute irritant. A relationship between NO_2 and chronic pulmonary fibrosis may exist, and an increase in bronchitis may occur in young children at concentrations below 0.3 ppm. Nitrogen dioxide absorbs blue light and causes a reddish brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of PM_{10} and acid rain.

Suspended Particulate Matter

Suspended particulate matter (PM_{10}) is particulate matter measuring no more than 10 microns in diameter; $PM_{2.5}$ is fine particulate matter measuring no more than 2.5 microns in diameter. Suspended particulates are mostly dust particles, nitrates, and sulfates. Both PM_{10} and $PM_{2.5}$ are by-products of fuel combustion and wind erosion of soil and unpaved roads, and are directly emitted into the atmosphere through these processes. Suspended particulates are also created in the atmosphere through chemical reactions. The characteristics, sources, and potential health effects associated with the small particulates (those between 2.5 and 10 microns in diameter) and fine particulates (those 2.5 microns and below) can be very different. The small particulates generally come from windblown dust and dust kicked up by mobile sources. The fine particulates are generally associated with combustion processes, and form in the atmosphere as a secondary pollutant through chemical reactions. Fine particulate matter is more likely to penetrate deeply into the lungs and poses a health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter inhaled into the lungs remains there. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an adsorbed toxic substance.

Toxic Air Contaminants

The California Health and Safety Code defines a toxic air contaminant (TAC) as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines. According to CARB, diesel engine emissions are believed to be responsible for about 70 percent of California's estimated known cancer risk attributable to TACs and they make up about 8 percent of outdoor $PM_{2.5}$ (CARB 2019).

Lead

Lead (Pb) is a metal found in the environment and in manufacturing products. The major sources of Pb emissions historically have been mobile and industrial sources. In the early 1970s, the USEPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The USEPA completed the ban on the use of leaded gasoline in highway vehicles in December 1995. As a result of the USEPA's regulatory efforts to remove lead from gasoline, atmospheric lead concentrations have declined substantially over the past several decades. The most dramatic reductions in lead emissions occurred prior to 1990 due to the removal of lead from gasoline sold for most highway vehicles. Lead emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries at least in part as a result of national emissions standards for hazardous air pollutants (USEPA 2014). Because of the phase out leaded gasoline, metal processing is now the primary source of lead emissions. The highest level of lead in the air is found generally near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers.

Current Ambient Air Quality

The VCAPCD operates a network of air quality monitoring stations throughout the Basin that measure ambient concentrations of pollutants and determine whether ambient air quality meets federal and state standards. The monitoring station closest to the project site is the El Rio-Rio Mesa School #2 monitoring station, which is located approximately 7.5 miles east of the project site. Table 4.1-2 indicates the number of days each air quality standard was exceeded at the Rio Mesa School #2 station for years in which data is available. As shown therein, the state and federal eight-hour ozone standard was exceeded in 2016 and 2017; the federal PM_{10} and $PM_{2.5}$ standards were exceeded in 2017 and 2018; and the state PM_{10} standard was exceeded each year from 2016 to 2018.

Table 4.1-2 Ambient Air Quality at the Mira Loma Van Buren Monitoring Station

Pollutant	2016	2017	2018
8-Hour Ozone (ppm), 8-Hr Maximum	0.071	0.071	0.062
Number of Days of State exceedances (>0.070)	1	1	0
Number of days of Federal exceedances (>0.070)	1	1	0
Ozone (ppm), Worst Hour	0.084	0.084	0.072
Number of days of State exceedances (>0.09 ppm)	0	0	0
Number of days of Federal exceedances (>0.112 ppm)	0	0	0
Nitrogen Dioxide (ppb) - Worst Hour	33.0	36.0	49.0
Number of days of State exceedances (>0.18 ppm)	0	0	0
Number of days of Federal exceedances (0.10 ppm)	0	0	0
Particulate Matter 10 microns, mg/m^3, Worst 24 Hours	105.0	287.9	209.0
Number of days above Federal standard (>150 mg/m^3)	0	1	2
Number of days above State standard (>50 mg/m^3)	14	29	21
Particulate Matter <2.5 microns, mg/m^3, Worst 24 Hours	22.7	81.3	41.2
Number of days above Federal standard (>35 mg/m^3)	0	4	1

Source: CARB 2020

Sensitive Receptors

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with a margin of safety, to protect public health and welfare. They are designed to protect segment of the public that are most susceptible to respiratory distress, such as children under 14, the elderly over 65, persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases. The majority of sensitive receptor locations are, therefore, schools, hospitals, and residences. The sensitive receptors nearest to the project site are Rancho Campana High School, located immediately adjacent to the west, and single-family residences located 250 feet to the southeast across Somis Road.

San Joaquin Valley Fever

San Joaquin Valley Fever (Valley Fever), formally known as Coccidioidomycosis, is an infectious disease caused by the fungus *Coccidioides immitis*. Valley Fever is a disease of concern in the Basin. Infection is caused by inhalation of *Coccidioides immitis* spores that have become airborne when dry, dusty soil or dirt is disturbed by natural processes, such as wind or earthquakes, or by human-induced ground-disturbing activities, such as construction, farming, or other activities (VCAPCD 2003). From 2012 to 2017, the number of cases of Valley Fever reported in California averaged 4,314 per year, with an average of 87 cases per year reported in Ventura County (California Department of Public Health 2018).

4.1.1.2 Regulatory Setting

Federal Regulations

Federal Clean Air Act

The USEPA is charged with implementing national air quality programs. USEPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), passed in 1963 by the U.S. Congress and amended several times. The 1970 federal CAA amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including non-attainment requirements for areas not meeting NAAQS and the Prevention of Significant Deterioration program. The 1990 federal CAA amendments represent the latest in a series of federal efforts to regulate air quality in the United States. The federal CAA allows states to adopt more stringent standards or to include additional pollution species.

National Ambient Air Quality Standards

The federal CAA requires USEPA to establish primary and secondary NAAQS for a number of criteria air pollutants. The air pollutants for which standards have been established are considered the most prevalent air pollutants known to be hazardous to human health. NAAQS have been established for ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and Pb.

State Regulations

California Clean Air Act

The California CAA, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. CARB is the state air pollution control agency and is a part of CalEPA. CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California, and for implementing the requirements of the California CAA. CARB overseas local district compliance with federal and California laws, approves local air quality plans, submits the state implementation plans to the USEPA, monitors air quality, determines and updates area designations and maps, and sets emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels.

California Ambient Air Quality Standards

The California CAA requires CARB to establish CAAQS. Similar to the NAAQS, CAAQS have been established for ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, Pb, vinyl chloride, hydrogen sulfide, sulfates, and visibility-reducing particulates. In most cases, the CAAQS are more stringent than the NAAQS. The California CAA requires all local air districts to endeavor to achieve and maintain the CAAQS by the earliest practical date. The California CAA specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources and provides districts with the authority to regulate indirect sources.

Assembly Bill 1493

Assembly Bill (AB) 1493 (2002), California's Advanced Clean Cars program (Pavley), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of greenhouse gas (GHG) emissions from motor vehicles." On June 30, 2009, USEPA granted the waiver

of CAA preemption to California for its GHG standards for motor vehicles beginning with the 2009 model year. Pavley I took effect for model years starting in 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG" will cover 2017 to 2025. Fleet average emission standards would reach 22 percent reduction from 2009 levels by 2012 and 30 percent by 2016. The Advanced Clean Cars program coordinates the goals of the LEV, Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels.

Regional and Local Regulations

Ventura County Air Pollution Control District

As noted previously, the project site is within the jurisdiction of the VCAPCD, which has adopted *Air Quality Assessment Guidelines* (2003) for quantifying and determining the significance of air quality emissions. Thresholds of significance contained in the *Air Quality Assessment Guidelines* are discussed in Section 4.1.3.

The VCAPCD also implements rules and regulations for emissions generated by various uses and activities. The rules and regulations detail pollution-reduction measures, which must be implemented during construction and operation of projects. Relevant rules and regulations to the project include those listed below.

- **Rule 50 (Opacity)**
  - This rule sets opacity standards on the discharge from sources of air contaminants. This rule would apply during construction of the proposed project.
- **Rule 51 (Nuisance)**
  - This rule prohibits any person from discharging air contaminants or any other material from a source that would cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public or which endangers the comfort, health, safety, or repose to any considerable number of persons or the public. The rule would apply during construction and operational activities.
- **Rule 55 (Fugitive Dust)**
  - This rule requires fugitive dust generators, including construction and demolition projects, to implement control measures limiting the amount of dust from vehicle track-out, earth moving, bulk material handling, and truck hauling activities. The rule would apply during construction and operational activities.
- **Rule 55.1 (Paved Roads and Public Unpaved Roads)**
  - This rule requires fugitive dust generators to begin the removal of visible roadway accumulation within 72 hours of any written notification from the VCAPCD. The use of blowers is expressly prohibited under any circumstances. This rule also requires controls to limit the amount of dust from any construction activity or any earthmoving activity on a public unpaved road. This rule would apply throughout all construction activities.
- **Rule 55.2 (Street Sweeping Equipment)**
  - This rule requires the use of PM_{10} efficient street sweepers for routine street sweeping and for removing vehicle track-out pursuant to Rule 55. This rule would apply during all construction activities.

Ventura County General Plan

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goals 1.2.1-1 and 1.2.1-2 and Policies 1.2.2-1 through 1.2.2-3 and 1.2.2-5 pertain to air quality.

- **Goals**
  - **1.2.1-1.** Diligently seek and promote a level of air quality that protects public health, safety, and welfare, and seek to attain and maintain the State and Federal Ambient Air Quality standards.
  - **1.2.1-2.** Ensure that any adverse air quality impacts, both long-term and short-term, resulting from discretionary development are mitigated the maximum extent feasible.
- **Policies**
  - **1.2.2-1.** Discretionary development that is inconsistent with the Air Quality Management Plan (AQMP) shall be prohibited, unless overriding considerations are cited by the decision-making body.
  - **1.2.2-2.** The air quality impacts of discretionary development shall be evaluated by use of the Guidelines for the Preparation of Air Quality Impact Analysis.
  - **1.2.2-3.** Discretionary development that would have a significant adverse air quality impact shall only be approved if it is conditioned with all reasonable mitigation measures to avoid, minimize, or compensate (offset) for the air quality impact. Developers shall be encouraged to employ innovative methods and technologies to minimize air pollution impacts.
  - **1.2.2-5.** Development subject to APCD permit authority shall comply with all applicable APCD rules and permit requirements, including the use of best available control technology (BACT) as determined by the APCD.

Additionally, several Elements of the Draft Ventura County 2040 General Plan recognize the importance of achieving regional air quality objectives. The Draft Plan includes the following additional policies related to air quality:

CIRCULATION, TRANSPORTATION, AND MOBILITY ELEMENT

- **Policy CTM-2.11: Efficient Land Use Patterns.** The County shall establish land use patterns that promote shorter travel distances between residences, employment centers, and retail and service-oriented uses to support the use of public transportation, walking, bicycling, and other forms of transportation that reduce reliance on single-passenger automobile trips.
- **Policy CTM-4.1: Reduce VMT.** The County shall work with Caltrans and VCTC to reduce VMT by:
  - facilitating the efficient use of existing transportation facilities,
  - striving to provide viable modal choices that make driving alone an option rather than a necessity,
  - supporting variable work schedules to reduce peak period VMT, and
  - providing more direct routes for pedestrians and bicyclists
- **Policy CTM-4.2: Alternative Transportation.** The County shall encourage bicycling, walking, public transportation, and other forms of alternative transportation to reduce VMT, traffic congestion, and greenhouse gas emissions.

- **Policy CTM-6.1: Routine Use of Alternative Transportation Options.** The County shall support the integration of emerging technologies that increase the routine use of alternative transportation options to decrease single-passenger automobile travel.

PUBLIC FACILITIES, SERVICES, AND INFRASTRUCTURE ELEMENT

- **Policy PFS-2.5: County Employee Trip Reduction.** The County shall encourage its employees to reduce the number and distance of single-occupancy vehicle work trips.
- **Policy PFS-2.6: County Alternative Fuel Vehicle Purchases.** The County shall review market-available technologies for alternative fuel vehicles and prioritize purchase of vehicles to reduce greenhouse gas emissions where economically feasible.

HAZARDS AND SAFETY ELEMENT

- **Policy HAZ-10.1: Air Pollutant Reduction.** The County shall strive to reduce air pollutant from stationary and mobile sources to protect human health and welfare, focusing efforts on shifting patterns and practices that contribute to the areas with the highest pollution exposures and health impacts.
- **Policy HAZ-10.2: Air Quality Management Plan Consistency.** The County shall prohibit discretionary development that is inconsistent with the most recent adopted AQMP, unless the Board of Supervisors adopts a statement of overriding considerations.
- **Policy HAZ-10.3: Air Pollution Control District Rule and Permit Compliance.** The County shall ensure that discretionary development subject to VCAPCD permit authority complies with all applicable APCD rules and permit requirements, including the use of Best Available Control Technology (BACT) as determined by the VCAPCD.
- **Policy HAZ-10.4: Engagement with Air Quality Management Plan.** When the VCAPCD updates the AQMP, the County shall actively engage continuously and throughout the process.
- **Policy HAZ-10.5: Air Pollution Impact Mitigation Measures for Discretionary Development.** The County shall work with applicants for discretionary development projects to incorporate bike facilities, solar water heating, solar space heating, incorporation of electric appliances and equipment, and the use of zero and/or near zero emission vehicles and other measures to reduce air pollution impacts and reduce greenhouse gas emissions.
- **Policy HAZ-10.6: Transportation Control Measures Programs.** The County shall continue to work with the VCAPCD and VCTC to develop and implement Transportation Control Measures (TCM) programs consistent with the AQMP to facilitate public transit and alternative transportation modes within the county.
- **Policy HAZ-10.7: Fuel Efficient County Vehicles.** When purchasing new County vehicles, the County shall give strong preference to fuel efficient vehicles, include the use of zero emission vehicles when feasible.
- **Policy HAZ-10.8: Alternative Transportation Modes.** The County shall promote alternative modes of transportation that reduce single-occupancy vehicle (SOV) travel and enhance "last-mile" transportation options to improve air quality.
- **Policy HAZ-10.9: Mitigation of Objectionable Odors.** The County shall require that discretionary development which will create objectionable odors that could affect a substantial number of people are appropriately mitigated. The project, pursuant to state law, shall be required to operate in accordance with the Rules and Regulations of the VCAPCD, with emphasis on Rule 51, Nuisance throughout the life of the permit.

- **Policy HAZ-10.11: Air Quality Assessment Guidelines.** In evaluating air quality impacts, the County shall consider total emissions from both stationary and mobile sources, as required by the California Environmental Quality Act. The County shall evaluate discretionary development for air quality impacts using the Air Quality Assessment Guidelines as adopted by the Ventura County Air Pollution Control District (APCD), except that emissions from APCD-permitted sources shall also be included in the analysis. The County shall revise the Initial Study Assessment Guidelines to implement this policy.
- **Policy HAZ-10.12: Conditions for Air Quality Impacts.** The County shall require that discretionary development that would have a significant adverse air quality impact shall only be approved if it is conditioned with all reasonable mitigation measures to avoid, minimize or compensate (offset) for the air quality impact. The use of innovative methods and technologies to minimize air pollution impact shall be encouraged in project design.

4.1.2 Impact Analysis

4.1.2.1 Significance Thresholds

Significance Thresholds

Per the Initial Study Assessment Guidelines (County 2011), impacts related to air quality would be potentially significant if the proposed project would:

1. Exceed any of the thresholds set forth in the air quality assessment guidelines as adopted and periodically updated by the VCAPCD, or be inconsistent with the Air Quality Management Plan; and/or
2. Be inconsistent with the applicable General Plan Goals and Policies for "Air Quality" in the County's Initial Study Assessment Guidelines.

The VCAPCD (2003) has adopted *Air Quality Assessment Guidelines* for quantifying and determining the significance of air quality emissions. Thresholds of significance contained in the *Air Quality Assessment Guidelines* include:

- The VCAPCD considers operational air quality impacts to be significant if the project would generate more than 25 pounds per day of the ozone precursors ROC or NO_X.
- The VCAPCD states that construction-related emissions of ROC and NO_X are not counted toward the two significance thresholds above, since these emissions are temporary. However, construction-related emissions should be mitigated if estimates of ROC and NO_X emissions from the heavy-duty construction equipment anticipated to be used for a particular project exceed the 25 pounds per day threshold.
- A project with operational emissions in excess of two pounds per day of ROC or NO_X that is found inconsistent with the Air Quality Management Plan (AQMP) would have a cumulatively considerable contribution to a significant cumulative air quality impact. Inconsistent projects are typically those that cause the existing population to exceed the population forecasts contained in the most recently adopted AQMP.
- The VCAPCD has not established quantitative thresholds for particulate matter for either construction or operation. However, the VCAPCD states a project would have a significant impact if it would be reasonably expected to generate fugitive dust emissions in such quantities as to cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person

or the public. The VCAPCD recommends implementation of fugitive dust measures described in Section 7.4.1 of the *Air Quality Assessment Guidelines* as part of all project-related dust-generating operations and activities.

- The VCAPCD has not established quantitative thresholds for CO for either construction or operation. However, the VCAPCD states that a CO hotspot screening analysis should be conducted for any project with indirect CO emissions greater than the applicable ozone project significance thresholds (i.e., 25 pounds per day) that may significantly impact roadway intersections currently operating at, or that are expected to operate at, Level of Service (LOS) E or F. A CO hotspot screening analysis should also be conducted for any project-impacted roadway intersection at which a CO hotspot might occur. If project emissions do not meet these criteria, then the project would have a less than significant impact related to CO hotspots.
- A project would result in significant impacts from odor emissions if it may reasonably be expected to generate odorous emissions in such quantities as to cause detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public, or which may cause, or have a natural tendency to cause, injury or damage to business or property.

Methodology

Criteria pollutant emissions for project construction and operation were calculated using CalEEMod, Version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts. CalEEMod allows for the use of default data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. The model calculates criteria pollutant emissions of CO, PM_{10}, $PM_{2.5}$, SO_2, and the ozone precursors, ROG and NO_X. The calculation methodology and input data used in CalEEMod can be found in the CalEEMod User's Guide Appendices A, D, and E (CAPCOA 2017). The input data and subsequent construction and operation emission estimates for the proposed project are discussed below. CalEEMod output files for the project are included in Appendix C to this report.

Construction Emissions

Project construction would primarily generate temporary criteria pollutant emissions from construction equipment operation on-site, construction worker vehicle trips to and from the site, and export of materials off-site. Construction input data for CalEEMod include, but are not limited to: (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be used; (3) areas to be excavated and graded; and (4) volumes of materials to be exported from and imported to the project site. The analysis assessed maximum daily emissions from individual construction activities, including site preparation, grading, building construction, paving, and architectural coating. Construction would require heavy equipment during site preparation, grading, building construction, and paving. Construction equipment estimates are based on surveys of construction projects in California conducted by members of CAPCOA. Approximately 1,500 cubic yards of soil would be cut and 35,100 cubic yards would be filled during project construction, with 33,600 cubic yards imported to the project site. Construction was modeled over three phases, with the soil import split across grading activities of three phases.

The quantity, duration, and the intensity of construction activity influences the amount of construction emissions and their related pollutant concentrations that occur at any one time. The emission forecasts modeled for this report reflect conservative assumptions where a relatively large amount of construction is occurring in a relatively intensive manner. If construction is delayed or occurs over a longer period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in the CalEEMod, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

CalEEMod can calculate reductions in construction emissions from the effects of dust control, diesel-engine classifications, and other selected emissions reduction measures. Emissions calculations assume application of water twice daily and a 15-mph speed limit on unpaved surfaces in compliance with VCAPCD Rule 55. Based on CalEEMod version 2016.3.2, the PM_{10} and $PM_{2.5}$ reduction for watering twice per day is 55 percent.

Operational Emissions

In CalEEMod, operational sources of criteria pollutant emissions include area, energy, and mobile sources.

ENERGY SOURCES

Emissions from energy use include natural gas use. The emissions factors for natural gas combustion are based on EPA's AP-42 (*Compilation of Air Pollutant Emissions Factors*) and California Climate Action Registry (CCAR) General Reporting Protocol (CCAR 2009).

AREA SOURCES

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and utilize standard emission rates from CARB, U.S. EPA, and emission factor values provided by the local air district (CAPCOA 2017).

MOBILE SOURCES

Mobile source emissions are generated by the increase in vehicle trips to and from the project site associated with operation of onsite development. Vehicle trips for the project inputted into the model were taken from the project's Traffic Study (ATE 2020).

4.1.2.2 Project Impacts and Mitigation Measures

Threshold 1:	Would the project exceed any of the thresholds set forth in the air quality assessment guidelines as adopted and periodically updated by the VCAPCD, or be inconsistent with the Air Quality Management Plan?

IMPACT AQ-1 EMISSIONS ASSOCIATED WITH PROJECT CONSTRUCTION WOULD BE LESS THAN SIGNIFICANT. HOWEVER, BECAUSE ROC AND NOX EMISSIONS WOULD EXCEED 25 POUNDS PER DAY, IMPLEMENTATION OF MITIGATION MEASURE AQ-1 IS RECOMMENDED.

Table 4.1-3 summarizes the estimated maximum daily emissions of pollutants associated with project construction. The VCAPCD's 25 pounds per day thresholds for ROC and NO_X do not apply to construction emissions because such emissions are temporary. Therefore, construction air quality impacts would be less than significant. However, as stated in Section 4.1.2.1, *Significance Thresholds*, VCAPCD recommends that mitigation be required if ROC and NO_X emissions exceed 25 pounds per day.

Table 4.1-3 Estimated Maximum Construction Emissions

	ROC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum Construction Emissions (lbs/day)	75	54	33	<1	10	6

ROC = reactive organic compounds, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; lbs/day = pounds per day

See Appendix C for model output results.

Construction-related air quality impacts would be less than significant. As shown in Table 4.1-3, ROC and NO_X emissions would exceed 25 pounds per day. Therefore, per VCAPCD's Guidelines, Mitigation Measure AQ-1 is recommended to reduce project construction emissions to below 25 pounds per day of ROC and NO_X.

With respect to fugitive dust emissions, the VCAPCD states that significant construction-related air quality impacts result if fugitive dust emissions are generated in such quantities as to cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public. For construction impacts, the VCAPCD recommends minimizing fugitive dust through dust control measures. Fugitive dust control measures are required by VCAPCD Rule 55. Such measures include securing tarps over truck loads, removing vehicle track-out using PM_{10} efficient sweepers, and watering bulk material to minimize fugitive dust. As a result, compliance with Rule 55 would ensure that construction emissions would not be generated in such quantities as to cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that may endanger the comfort, repose, health, or safety of any such person or the public. Impacts from fugitive dust emissions would be less than significant.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness or that may pose a present or potential hazard to human health. Emissions of TACs may occur from construction or operation of a project.

Construction-related activities would result in short-term, project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation grading, building construction, and other construction activities. DPM was identified as a toxic air contaminant (TAC) by CARB in 1998. The potential cancer risk from the inhalation of DPM (discussed in the following paragraphs) outweighs the potential non-cancer health impacts (CARB 2017). At this time, VCAPCD has not adopted a methodology for analyzing such impacts.

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction of the proposed project would occur over approximately five years. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the OEHHA, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period (assumed to be the approximate time that a person spends in a household). OEHHA recommends this risk be bracketed with 9-year and 70-year exposure periods. Health risk assessments should be limited to the period/duration of activities associated with the project.

The maximum $PM_{2.5}$ emissions, which is used to represent DPM emissions for this analysis, would occur during site preparation and grading activities. While site preparation and grading emissions represent the worst-case condition, such activities would only occur for about six months, less than 25 percent of the overall construction period and less than five percent, one percent, and 0.5 percent of the typical health risk calculation period of 9 years, 30 years, and 70 years, respectively. $PM_{2.5}$ emissions would decrease for the remaining construction period because construction activities such as building construction and paving would require less construction equipment. Therefore, given the aforementioned, DPM generated by project construction is not expected to create conditions where the probability that the Maximally Exposed Individual would contract cancer is greater than 10 in one million or to generate ground-level concentrations of noncarcinogenic TACs that exceed a Hazard Index greater than one for the Maximally Exposed Individual. This impact would be less than significant.

Mitigation Measure

Mitigation Measure AQ-1 is recommended to reduce construction emissions of ROC and NO_X in accordance with VCAPCD guidance.

AQ-1 ROC and NO_X Construction Reduction Measures

Per the VCAPCD Guidelines, when construction emissions exceed 25 pounds per day for ROC and NO_X, the following measures shall be implemented:

- Minimize equipment idling time.
- Maintain equipment engines in good condition and in proper tune as per manufacturers' specifications.
- Lengthen the construction period during smog season (May through October) to minimize the number of vehicles and equipment operating at the same time.

- Use alternatively fueled construction equipment, such as compressed natural gas, liquefied natural gas, or electric, if feasible.
- In addition, per recent VCAPCD guidance on other projects, project construction shall use Tier 3 or above construction equipment for all off-road diesel equipment that has greater than 50 horsepower. A copy of each unit's certified tier specification shall be provided at the time of mobilization of each applicable unit of equipment.

Significance After Mitigation

Air pollutant emissions impacts associated with project construction would be less than significant. Nevertheless, Mitigation Measure AQ-1 is recommended to reduce construction emissions of ROC and NO_X accordance with VCAPCD guidance. Project construction emissions with implementation of recommended Mitigation Measure AQ-1 are shown in Table 4.1-4. As shown in the table, emissions of NO_X would be reduced approximately 30 percent and ROC by approximately 1 percent from the use of Tier 3 equipment as compared to no specified tier. The VCAPCD does not require a project to mitigate below 25 pounds per day and instead requires the implementation of the specified measures outlined in recommended Mitigation Measure AQ-1. Therefore, implementation of recommended Mitigation Measure AQ-1 would further reduce impacts that are already less than significant due to their temporary nature to the maximum degree feasible.

Table 4.1-4 Project Construction Emissions - Mitigated

	Maximum Daily Emissions (lbs/day)					
Emission Source	**ROC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Construction Emissions – Unmitigated	75	54	33	<1	10	6
Construction Emissions – Mitigated	74	38	39	<1	9	5
Percent Change	**-1%**	**-30%**	**+18%**	**0%**	**-10%**	**-17%**

ROC = reactive organic compounds, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; lbs/day = pounds per day, VCAPCD = Ventura County Air Pollution Control District

Note: See Appendix C for model output results.

Threshold 1: Would the project exceed any of the thresholds set forth in the air quality assessment guidelines as adopted and periodically updated by the VCAPCD, or be inconsistent with the Air Quality Management Plan?

IMPACT AQ-2 AIR POLLUTANT EMISSION IMPACTS ASSOCIATED WITH PROJECT OPERATION WOULD BE LESS THAN SIGNIFICANT.

Table 4.1-5 summarizes the project's operational emissions by emission source (area, energy, and mobile). As shown below, the emissions generated by operation of the proposed project would not exceed VCAPCD regional thresholds for ROC or NO_X. Impacts from the project's operational criteria pollutant emissions would be less than significant.

Table 4.1-5 Project Operational Emissions

Emission Source	Maximum Daily Emissions (lbs/day)					
	ROC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	7	<1	30	<1	<1	<1
Energy	<1	1	<1	<1	<1	<1
Mobile	3	12	39	<1	15	4
Emergency Generator	<1	<1	<1	<1	<1	<1
Total Project Emissions	10	14	69	<1	15	5
VCAPCD Thresholds	25	25	N/A	N/A	N/A	N/A
Threshold Exceeded?	**No**	**No**	**N/A**	**N/A**	**N/A**	**N/A**

ROC = reactive organic compounds, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; lbs/day = pounds per day, VCAPCD = Ventura County Air Pollution Control District

N/A = Not available. The VCAPCD has not established recommended quantitative thresholds for CO, SO_2, PM_{10}, and $PM_{2.5}$.

Note: See Appendix C for model output results.

Toxic Air Contaminants

Operational TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. Operational equipment associated with the CWWTF and other project components would not generate TAC emissions because they would not involve use of substances known to emit TACs; therefore, no operational impacts from TAC emissions would occur.

Mitigation Measures

No mitigation is required.

Threshold 1: Would the project exceed any of the thresholds set forth in the air quality assessment guidelines as adopted and periodically updated by the VCAPCD, or be inconsistent with the Air Quality Management Plan?

IMPACT AQ-3 THE PROJECT WOULD NOT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS FROM CO HOTSPOTS, VALLEY FEVER, OR TACS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

CO Hot Spots

A CO hotspot is a localized concentration of CO that exceeds a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal one-hour standard of 35.0 parts per million (ppm) or the federal and state eight-hour standard of 9.0 ppm. Ventura County is in conformance with state and federal

CO standards; no stations in Ventura County have monitored CO in the last 15 years because it is considered a non-issue. The VCAPCD recommends conducting a CO hotspot screening analysis for any project with indirect CO emissions greater than 25 pounds per day that may generate traffic that would significantly impact congestion levels at roadway intersections currently operating at, or that are expected to operate at, LOS E or F. As shown in Table 4.1-5, operation of the proposed project would generate approximately 39 pounds of indirect CO emissions (i.e., mobile source emissions) per day. However, per the project's Traffic Study (ATE 2020), under the existing plus project or cumulative plus project scenario, no analyzed intersections would operate at LOS E or F. Therefore, the project would not generate substantial traffic volumes that would cause or contribute to a CO hotspot or expose sensitive receptors to substantial pollutant concentrations related to CO hotspots. Impacts would be less than significant.

San Joaquin Valley Fever

Construction activities, including site preparation and grading, would have the potential to release *Coccidioides immitis* spores, which cause Valley Fever. the VCAPCD recommends consideration of the following factors that may indicate a project's potential to result in impacts related to Valley Fever (VCAPCD 2003):

- Disturbance of the top soil of undeveloped land (to a depth of about 12 inches)
- Dry, alkaline, sandy soils
- Virgin, undisturbed, non-urban areas
- Windy areas
- Archaeological resources probable or known to exist in the area (Native American midden sites)
- Special events (fairs, concerts) and motorized activities (motocross track, All Terrain Vehicle activities) on unvegetated soil (non-grass)
- Non-native population (i.e., out-of-area construction workers)

Construction of the Project would disturb areas that are disturbed in conjunction with farming activities. Due to the previous and continuous soil disturbance at the site, disturbance of soils during construction activities is unlikely to pose a substantial risk of infection. Furthermore, due to the size of the proposed project, it is anticipated that construction workers would be from the local or regional area and would therefore have previous exposure to and immunity from Valley Fever. In addition, substantial increases in the number of reported cases of Valley Fever tend to occur only after major ground-disturbing events such as the 1994 Northridge earthquake. Construction of the proposed project would also comply with VCAPCD Rule 55 (Fugitive Dust) to limit dust generation and movement. Therefore, construction of the proposed project would not result in a substantial increase in entrained fungal spores that cause Valley Fever above existing background levels and impacts related to Valley Fever would be less than significant.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness or that may pose a present or potential hazard to human health. Emissions of TACs from construction and operation of the proposed project are previously discussed under Impact AQ-1 and Impact AQ-2. No impacts from TAC emissions would occur.

Mitigation Measures

No mitigation is required.

Threshold 1:	Would the project exceed any of the thresholds set forth in the air quality assessment guidelines as adopted and periodically updated by the VCAPCD, or be inconsistent with the Air Quality Management Plan?

IMPACT AQ-4 IMPLEMENTATION OF THE PROJECT WOULD NOT CREATE OBJECTIONABLE ODORS THAT COULD AFFECT A SUBSTANTIAL NUMBER OF PEOPLE. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Based on the VCAPCD Air Quality Assessment Guidelines, a project may have a significant impact if it would generate an objectionable odor to a degree that would cause injury, detriment, nuisance, or annoyance to a considerable number of persons or to the public, or which would endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Land uses and industrial operations known to emit objectionable odors include wastewater treatment facilities, food processing facilities, coffee roasters, fiberglass operations, refineries, feed lots/dairies, and composting facilities.

The project would include the CWWTF to provide wastewater treatment for the project. The primary source of odors associated with wastewater treatment plants is hydrogen sulfide (H_2S), which produces an odor similar to rotten eggs (Baranksi 2017). For the CWWTF, a vent port is supplied on the Anoxic Chamber for connection to an air scrubber that would incorporate advanced odor control technology. Air scrubbers would provide two stage chemistry for the control of odors from hydrogen sulfide (H_2S), mercaptans, ammonia, amines, and other odors generated in wastewater collection and treatment systems. The proposed treatment system is designed to achieve an H_2S reduction of 99 percent and would also remove a majority of volatile mercaptans, organic amines, and organic sulfurs. By removing these substances from vented air, this system would remove the primary contributors to odorous air, thereby minimizing the potential for objectionable odors to be released (Baranski 2017). With incorporation of these project design features, odors would not generate an objectionable odor to a degree that would cause injury, detriment, nuisance, or annoyance to a considerable number of persons or to the public, or that would endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. In addition, solid waste generated by the proposed on-site uses would be collected by a contracted waste hauler, ensuring that any odors resulting from on-site waste would be managed and collected in a manner to prevent the proliferation of odors. Operational odor impacts would be less than significant.

For construction activities, odors would be short-term in nature and are subject to SCAQMD Rule Construction activities would be temporary and transitory and associated odors would cease upon construction completion. Accordingly, the proposed project would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 2:	Would the project be inconsistent with the applicable General Plan Goals and Policies for "Air Quality" in the County's Initial Study Assessment Guidelines?

IMPACT AQ-5 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would be consistent with the County General Plan goals and policies listed previously under Regulatory Setting. The project's consistency is analyzed in detail in Section 4.10, *Land Use and Planning*. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

4.1.2.3 Cumulative Impacts

The cumulative context for air quality is regional. The Basin is designated as being in nonattainment for ozone NAAQS and CAAQS and nonattainment for particulate matter less than 10 microns in diameter (PM_{10}) CAAQS; therefore, there are existing significant cumulative air quality impacts related to these pollutants. The Basin is in attainment of all other federal and state standards. The project would contribute particulate matter and the ozone precursors ROG and NO_X to the area during construction and operation.

In accordance with VCAPCD guidance, a project with emissions in excess of two pounds per day of ROC or NO_X that is found inconsistent with the AQMP would have a significant cumulative air quality impact. Inconsistent projects are typically those that cause the existing population to exceed the population forecasts contained in the most recently adopted AQMP (VCAPCD 2003). The VCAPCD adopted the 2016 Ventura County AQMP to demonstrate a strategy for and reasonable progress toward attainment of the federal 8-hour ozone standard. The 2016 Ventura County AQMP relies on the Southern California Association of Governments' (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) forecasts of regional population growth in its projections for managing Ventura County's air quality. The population growth forecasts in SCAG's 2016 RTP/SCS for the unincorporated Ventura County estimate that the population would increase from 96,700 in 2012 to 113,600 in 2040, for a population increase of 16,900. The increase in population from the project, estimated by CalEEMod at 1,102 persons, would be within the SCAG's projected 2040 population increase of 16,900 and the project would not cause the unincorporated Ventura County's population to exceed official regional population projections. As discussed under Impact AQ-3, operation of the project would generate emissions of ROC and NO_X that exceed two pounds per day. However, because the project's population would be within SCAG 2016 forecasts, the project would be consistent with the 2016 Ventura County AQMP. Therefore, the project would not have a cumulative considerable contribution to a cumulative air quality impact.

As identified under Impact AQ-3, the project would not have a significant impact from CO hotspots, TACs, or valley fever. Discussion of these impacts considers the cumulative nature of the pollutants in the region; e.g., the cancer risk and non-cancer risk thresholds have been set per existing cancer risks in the area and exceeding those thresholds would be considered a cumulative impact. Because the project would not have impacts exceeding those thresholds, it would not expose sensitive receptors to a cumulatively considerable amount of substantial pollutant concentrations from CO hotspots, TACs, or valley fever.

As identified under Impact AQ-4, the project would not have a significant impact from odor emissions. The consideration of cumulative odor impacts is limited to cases when projects constructed simultaneously are within a few hundred yards of each other because of the short range of odor dispersion. It is unlikely that project construction would occur within a few hundred yards of major off-site construction due to the developed nature of the existing area. Therefore, the project would not result in a cumulatively considerable odor impact.

4.2 Agricultural Resources – Soils

This section analyzes the proposed project's impacts to land designated as Prime, Statewide Importance, Unique, and/or Local Importance (defined as "Farmland" or "Important Farmland" in CEQA, pursuant to guidance in CEQA Section 21095 and CEQA Guidelines Appendix G, and the County).

4.2.1 Setting

4.2.1.1 Agricultural Context

Regional

Ventura County's temperate climate with warm, wet winters and hot, dry summers coupled with fertile soils, supports the cultivation of a diversity of agricultural commodities, including strawberries, celery, lemons, raspberries, avocados, nursery stock, tomatoes, peppers, cut flowers, cabbage, and kale. According to the State of California, Ventura County ranked eighth among California counties in total crop value in 2017 based on data from the County Agricultural Commissioner's Annual Crop and Livestock Report (County 2019a). The estimated gross value of Ventura County's agriculture for calendar year 2018 was approximately $2.1 billion.

Areas that sustain agricultural commodity growth have a broad range of characteristics. For example, berry production requires a temperate moist climate, so most strawberry production is found close to the coast, surrounding the cities of Ventura, Oxnard, Camarillo, and Port Hueneme. The climate tends to be dryer and warmer further from the coast, favoring citrus crops. Specifically, the U.S. Highway 126 and U.S. Highway 150 corridors are prime areas for citrus growth. Fertile soil combined with ideal temperate seasonal temperatures allow lemons, oranges, and mandarins to thrive. Some commodity types, such as avocados, can grow in a variety of climate regions, allowing them to flourish countywide (County 2019a).

Project Site

The 36.4-acre project site is currently used for agricultural production, specifically celery, cabbage, and strawberries. The project site is also adjacent to active agricultural fields to the north, northwest, and east. The project site is designated as Agricultural in County General Plan and is zoned as AE (Agricultural Exclusive). Agriculture infrastructure includes irrigation throughout the project site.

4.2.1.2 Agricultural Soils and Farmland Characteristics of the Project Site

The United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) assesses the agricultural capacity of soils through its utilization of the Land Capability Classification System and the Storie Index. Capability Classes provide insight into the suitability of a soil for field crop uses based on factors that include texture, erosion, wetness, permeability, and fertility. The Storie Index is a soil rating based on soil properties that govern a soil's potential for cultivated agriculture in California. The Storie Index assesses the productivity of a soil based on the following four characteristics:

- Factor A – degree of soil profile development
- Factor B – texture of the surface layer
- Factor C – slope
- Factor X – manageable features, including drainage, micro relief, fertility, acidity, erosion, and salt content

Under the California Revised Storie Index, these four factors translate into one of four soil grades: Grade 1 (excellent), Grade 2 (good), Grade 3 (fair) and Grade 4 (poor). In addition, the NRCS farmland classification identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops and identifies map units as "Prime Farmland, if irrigated," "Farmland of Statewide Importance" and "Not Prime Farmland." The project site includes California Revised Storie Index Grade 1 (excellent) soils, including Mocho Loam, 0-2 percent slopes; Sorrento silty clay loam, 0-2 percent slopes; and Pico Loam, sandy substratum, 0-2 percent slopes.

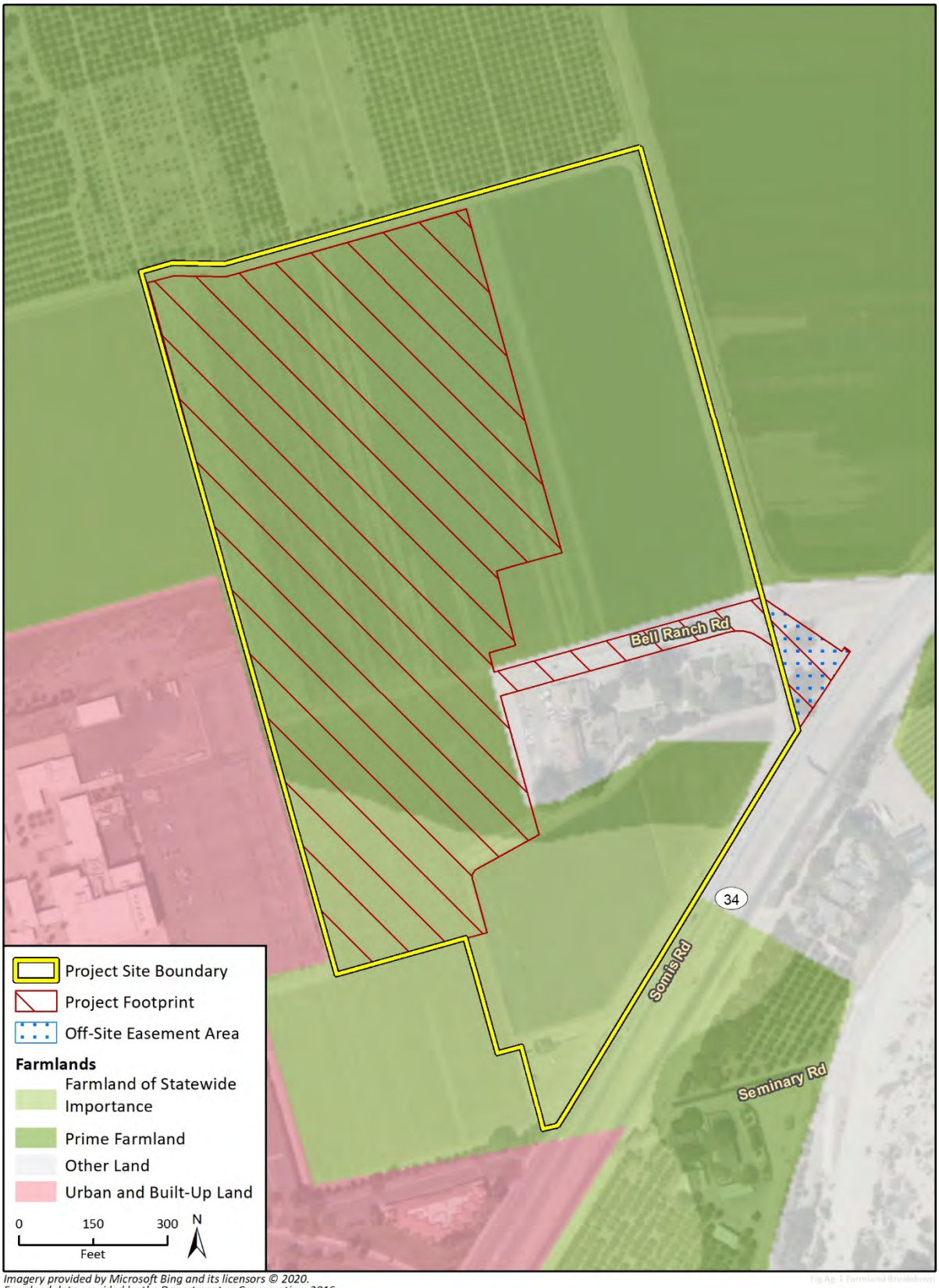
In addition to the NRCS system, the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) compiles Important Farmland maps for each county in the State. Maps and statistics are produced biannually using a process that integrates aerial photo interpretation, field mapping, a computerized mapping system, and public review. The FMMP Important Farmland differs from the NRCS farmland classification because the NRCS farmland classifications are based solely on soil quality, while the FMMP Important Farmland designations are based on both soil quality and current land use.

The Important Farmland types present on the project site include Prime Farmland and Farmland of Statewide Importance, which are defined by the FMMP as follows:

- **Prime Farmland:** The project site includes 26.1 acres of Prime Farmland, which is Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. The land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Farmland of Statewide Importance:** The project site includes 6.5 acres of Farmland of Statewide Farmland, which is Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Table 4.2-1 summarizes the acreage of Important Farmland categories on the project site and Figure 4.2-1 shows the types of Important Farmland present on the project site.

Figure 4.2-1 Important Farmland on the Project Site



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Farmland data provided by the Department or Conservation, 2016.

Table 4.2-1 Important Farmland on the Project Site

Important Farmland Inventory Classification	On-Site Acreage
Prime Farmland	26.1
Farmland of Statewide Importance	6.5
Total	**32.6**

4.2.1.3 Regulatory Setting

State Regulations

California Department of Conservation Farmland Mapping and Monitoring Program

As previously discussed, the California DOC FMMP produces maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is categorized according to soil quality and irrigation status. The maps are updated every two years through the review of aerial photographs, a computer mapping system, public review, and field reconnaissance.

California Code of Regulations (Title 3 Food and Agriculture)

California Code of Regulations (CCR) Title 3, Sections 6000–6920 regulate the registration, management, use, and application of pesticides on agricultural lands. These regulations are enforced by the Ventura County Agricultural Commissioner's Office. Generally, specific regulations vary for each pesticide, its method of application, and use. However, Sections 6600 and 6614 contain some general regulations relating to the application of pesticide, as well as general standards of care and protection of persons, animals, and property.

California Land Conservation Act (Williamson Act) Contract

Preservation of agricultural, recreational, and open space lands through agricultural preserve contracts between the County and property owners is a technique encouraged by the State of California for implementing the general plan. Agricultural preserve contracts are executed through procedures enabled by the California Land Conservation Act of 1965, also known as the Williamson Act. A contract may be entered into for property with agricultural, recreational, and open space uses in return for decreased property taxes. Land Conservation Act contracts preserve agriculture and open space over a rolling term 10-year contract. The inclusion of a parcel in a Williamson Act contract is entirely voluntary and must have the consent of the property owner. The project site is not subject to a Land Conservation Act (Williamson Act) contract; therefore, this subject is not further discussed in this EIR.

Local Regulations

Ventura County General Plan

The County has adopted various programs designed to preserve agriculture. Agricultural preservation has been integrated into overall land use planning strategy and consequently is a reciprocal beneficiary of many interagency regional land use planning and resource conservation programs. Specific County agricultural preservation programs include the Agriculture Land Use Designation, which establishes an Agriculture designation for lands identified in the Important Farmland Inventory and subjects all parcels to the Agricultural Exclusive (A-E) zone (County 2019b).

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goal 1.6.1-1 and Policies 1.6.2-1 and 1.6.2-6 pertain to agricultural soils.

- **Goals**
  - **1.6.1-1.** Preserve and protect agricultural lands as a nonrenewable resource to assure the continued availability of such lands for the production of food, fiber, and ornamentals.
- **Policies**
  - **1.6.2-1.** Discretionary development located on land designated as Agricultural and identified as Prime Farmland or Farmland of Statewide Importance on the State's Important Farmland Inventory shall be planned and designed to remove as little land as possible from potential agricultural production and to minimize impacts on topsoil.
  - **1.6.2-6.** Discretionary development adjacent to Agricultural-designated lands shall not conflict with agricultural use of those lands.

SOAR Ordinance

The County's Save Open Space and Agricultural Resources (SOAR) Ordinance was initially adopted by the County Board of Supervisors in 1998. The SOAR Ordinance requires a majority vote of the people for development of land currently designated as Open Space, Agricultural, or Rural in the County General Plan and requiring a General Plan amendment. The project site is designated Agricultural in the County General Plan. In 2016, two new sections were added to SOAR to assist the agricultural industry by providing exemptions from a vote of the people for farmworker housing and processing of locally grown food. Further exemptions exist for affordable housing projects.

Additionally, the Ventura County NCZO allows for the development of farmworker housing complexes on parcels smaller than the prescribed minimum lot area on land zoned AE within or adjacent to a city Sphere of Influence, provided the remaining non-farmworker housing complex parcel is a minimum of 10 acres (Ventura County NCZO Section 8103-2.7). The project would include the continuation of agricultural use on a 17.93-acre continued agricultural use parcel on a project site zoned AE that is adjacent to the City of Camarillo (and its Sphere of Influence).

4.2.2 Impact Analysis

4.2.2.1 Significance Thresholds

Per the Initial Study Assessment Guidelines (County 2011), impacts related to agricultural soils would be potentially significant if the proposed project would:

1. Result in the direct and/or indirect loss of soils designated Prime, Statewide Importance, Unique, or Local Importance, beyond the threshold amounts set forth in Table 4.2-2 (from Section 5a.C of the County's Initial Study Assessment Guidelines);
2. Involve a General Plan amendment that will result in the loss of agricultural soils; and/or
3. Be inconsistent with the applicable General Plan Goals and Policies for "Agricultural Resources – Soils" in the County's Initial Study Assessment Guidelines.

Table 4.2-2 Significance Thresholds Based on Impacted Farmland

General Plan Land Use Designation	Farmland Inventory Classification	Significance Threshold (acres)
Agricultural	Prime/Statewide	5
	Unique	10
	Local	15
Open Space/Rural	Prime/Statewide	10
	Unique	15
	Local	20
All Others	Prime/Statewide	20
	Unique	30
	Local	40

Source: County 2011

4.2.2.2 Project Impacts and Mitigation Measures

Threshold 1: Would the project result in the direct and/or indirect loss of soils designated Prime, Statewide Importance, Unique, or Local Importance, beyond the threshold amounts set forth in Table 4.2-2?

IMPACT AG-1 THE PROJECT WOULD RESULT IN THE DIRECT LOSS OF 18.2 ACRES OF PRIME FARMLAND OR FARMLAND OF STATEWIDE IMPORTANCE TO NONAGRICULTURAL USE. NO FEASIBLE MITIGATION IS AVAILABLE TO REDUCE THIS IMPACT TO A LESS THAN SIGNIFICANT LEVEL; THEREFORE, THE IMPACT DUE TO LOSS OF FARMLAND SOILS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

As previously described, the project site is predominantly used for agricultural production. As shown in Table 4.2-3, the proposed project would result in the direct loss of 18.2 acres of Prime Farmland or Farmland of Statewide Importance to nonagricultural use, which exceeds the 5-acre significance threshold for impacts to Prime Farmland or Farmland of Statewide Importance (from Table 4.2-2). The project would include continuation agricultural crop production on a 17.93-acre continued agricultural use parcel on the project site. Nonetheless, because the proposed project would result in a loss of Farmland that exceeds the County's significance thresholds, the permanent and direct loss of Important Farmland soils would result in a significant impact.

Table 4.2-3 Project Impacts to Important Farmland

Important Farmland Inventory Classification	Impact Acreage
Prime Farmland	15.8
Farmland of Statewide Importance	2.4
Total	**18.2**

Mitigation Measures

No mitigation is proposed. There is no feasible mitigation currently available. The remaining agricultural land on the project site would be under different ownership and, therefore, not available for an agricultural conservation easement. In addition, an agricultural conservation easement would not reduce Impact AG-1 to a less than significant level. It is noted that the project

would include continuation agricultural crop production on a 17.93-acre continued agricultural use parcel.

Significance After Mitigation

Impact AG-1 would remain significant and unavoidable.

Threshold 2:	Would the project involve a General Plan amendment that would result in the loss of agricultural soils?

IMPACT AG-2 THE PROJECT WOULD NOT REQUIRE A GENERAL PLAN AMENDMENT. THEREFORE, NO IMPACT WOULD OCCUR.

As discussed throughout Section 4 of this EIR, the project would comply with applicable General Plan goals and policies. The Ventura County NCZO allows for the development of farmworker housing complexes on parcels smaller than the prescribed minimum lot area on land zoned AE within or adjacent to a city Sphere of Influence, provided the remaining non-farmworker housing complex parcel is a minimum of 10 acres (Ventura County NCZO Section 8103-2.7). The project would include the continuation of agricultural use on a 17.93-acre continued agricultural use parcel on a project site zoned AE that is adjacent to the City of Camarillo (and its Sphere of Influence). Therefore, the project would comply with applicable requirements of the Ventura County NCZO and the County General Plan.

In addition, because the project does not require a General Plan amendment and involves the development of affordable farmworker housing, the proposed project would not require inclusion on the ballot for approval by the majority of voters, as set forth in the County's SOAR Ordinance. Accordingly, the County's SOAR ordinance does not apply to the project.

Because the project would not require a General Plan amendment, no impact would occur.

Mitigation Measures

No mitigation is required.

Threshold 3:	Would the project be inconsistent with the applicable General Plan Goals and Policies for "Agricultural Resources – Soils" in the County's Initial Study Assessment Guidelines?

IMPACT AG-3 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would be consistent with the County General Plan goals and policies listed previously under Regulatory Setting. The project's consistency is analyzed in detail in Section 4.10, *Land Use and Planning*. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

4.2.2.3 Cumulative Impacts

Table 3-1 in Section 3, *Environmental Settings,* identifies currently planned and pending projects in the vicinity of the project site. Project PL15-0014, located at 3100 Somis Road in Camarillo, would involve a General Plan amendment to change the land use designation from Agricultural (40-acre minimum) to Existing Community, and a rezoning of the same area from Agricultural Exclusive (AE 40) to Limited Industrial (M2) for the continued use, operation, and expansion of a wholesale lumber yard. Although this project area is designated as an agricultural area in the General Plan and zoning ordinance, it does not contain any FMMP Important Farmland types. The site is designated by FMMP as Urban and Built-Up Land (DOC 2016).

Project PL18-0109 would involve the construction of a new dog kennel and sales facility on a 20-acre lot in the Agricultural Exclusive zone at 5500 Grimes Canyon in Moorpark. This project area contains both Prime Farmland and Farmland of Statewide Importance, as designated by the FMMP (DOC 2016). Areas of existing farmland would be removed and covered by a proposed dog kennel and sales facility. Consequently, it would also result in a direct loss of soils designated Prime and Farmland of Statewide Importance.

Nonetheless, as stated in the County's Initial Study Assessment Guidelines, any project that would result in the direct and/or indirect loss of agricultural soils would contribute to a significant cumulative impact. However, the cumulative loss of agricultural soils was discussed in the Final EIR for the Comprehensive Amendment to the County General Plan (1988).[4] That EIR concludes that there will be a significant loss of agricultural soils and, although the General Plan contains policies and programs that serve to partially mitigate the cumulative impact, the impact cannot be reduced to a less than significant level. In accordance with Section 15183 of the CEQA Guidelines, although the project would result in a significant impact related to agricultural land conversion, additional cumulative environmental analysis is not required for any project that is consistent with the General Plan, including the proposed project (County 2011).

[4] A Subsequent EIR was certified by the County Board of Supervisors in 2005.

4.3 Biological Resources

This section analyzes the effects of the proposed project on biological resources. The analysis is based on the Initial Study Biological Assessment prepared by Rincon Consultants, Inc. and included in Appendix D.

4.3.1 Setting

4.3.1.1 Biological Survey

The project site and 100-foot buffer (biological survey area) was surveyed by a qualified biologist on May 4, 2020 and August 28, 2020.

Natural Communities and Land Cover Types

Three natural communities and five other land cover types were mapped in the biological survey area (Figure 4.3-1). None of the natural communities or land cover types within the biological survey area are considered to be an environmentally sensitive habitat area (ESHA).

Giant Scouring Rush

This herbaceous alliance typically occurs in riparian areas, including streambanks, floodplains, edges of levees, seeps, ponds, and riparian forest openings between sea level and to 10,000 feet in elevation. The soils where it occurs are alluvial and may be seasonally or intermittently flooded. The herbaceous canopy cover may be intermittent to continuous, and native giant scouring rush (*Equisetum hyemale*) comprises at least 50 percent relative cover in the herbaceous layer. Giant scouring rush is identified by CDFW and the County as a sensitive plant community.

In the biological survey area, giant scouring rush occurs in two small patches in the channelized ephemeral stream (Grove's Place Drain; see "Waters and Wetlands" below) near the northeast corner of the project site (Figure 4.3-1). In these areas, the species forms a closed canopy with no understory. The biological survey area contains less than 0.1 acre of this land cover type, representing less than one percent of the biological survey area.

Bermuda Grass – Italian Wild Rye

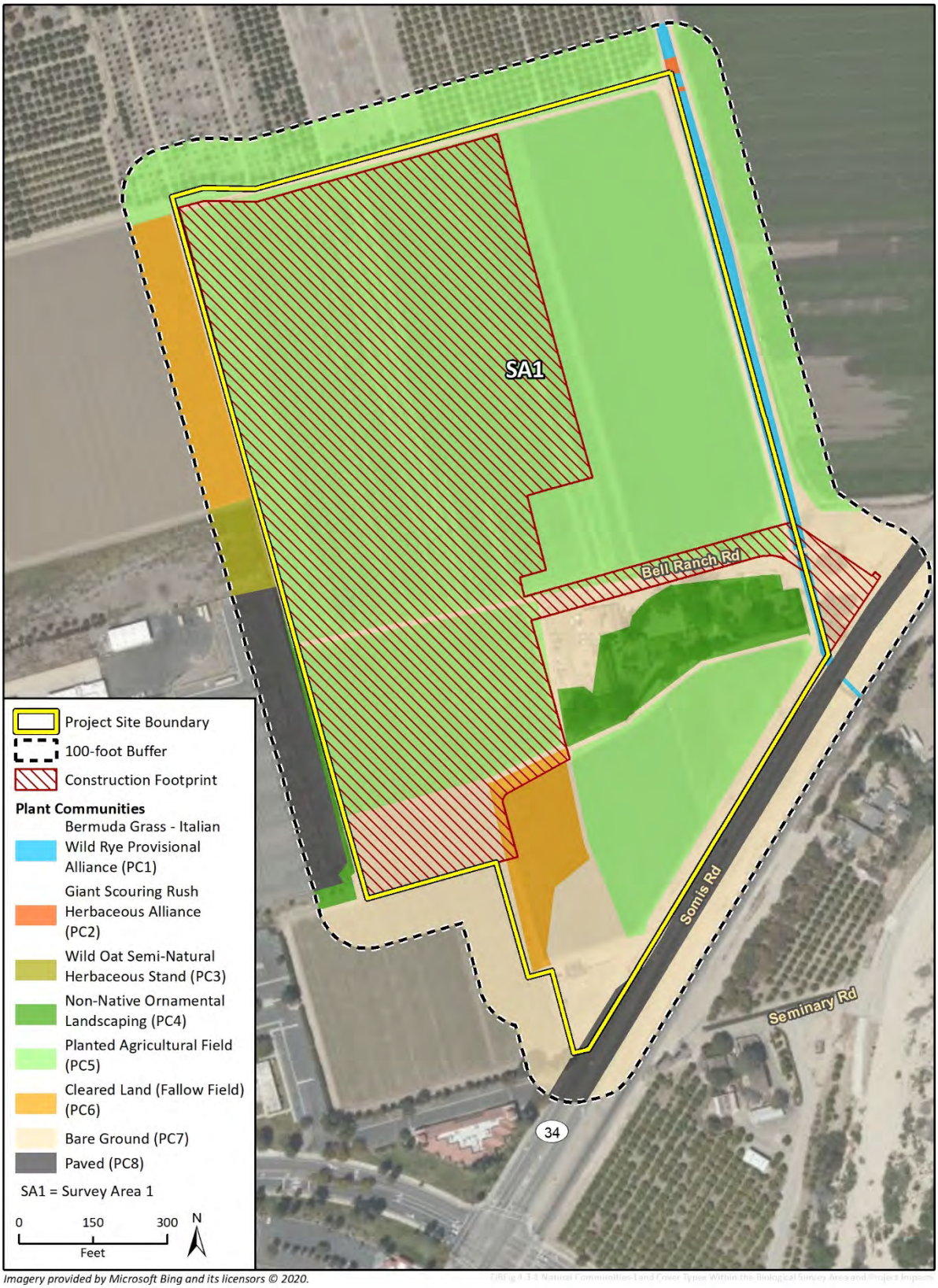
This provisional herbaceous stand occurs in Grove's Place Drain along the east side of the survey area. Non-native Bermuda grass (*Cynodon dactylon*) and Italian wild rye (*Festuca perennis*) are dominant in the herbaceous layer. Other species observed include native smooth willowherb (*Epilobium ciliatum*), rescue grass (*Bromus catharticus*), non-native annual beard grass (*Polypogon monspeliensis*), and castor bean (*Ricinus communis*).

The biological survey area contains approximately 0.8 acre of this land cover type, representing two percent of the biological survey area.

Wild Oat

This herbaceous stand occurs in a variety of settings, including waste places, rangelands, and openings in woodlands between sea level and 7,000 feet in elevation. The herbaceous canopy cover ranges from open to continuous, and non-native wild oat (*Avena fatua*) comprises at least 50 percent relative cover.

Figure 4.3-1 Natural Communities/Land Cover Types Within the Biological Survey Area and Project Impacts



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In the biological survey area, this community occurs near the western boundary of the project site. Wild oat dominates the herbaceous layer. Other non-native herbaceous species are also present, including ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), and bull mallow (*Malva nicaeensis*). The survey area contains approximately 0.4 acre of this land cover type, representing one percent of the biological survey area.

Non-Native Ornamental Landscaping

Non-native ornamental landscaping occurs near the center of the biological survey area in the immediate vicinity of the existing structures and at the southwest corner of the biological survey area bordering the adjacent high school parking lot. Near the existing structures is a tree canopy composed of several large ornamental species, including Peruvian pepper tree (*Schinus molle*), Brazilian pepper tree (*Schinus terebinifolius*), blue gum (*Eucalyptus globulus*), orange tree (*Citrus* sp.), avocado (*Persea americana*), and myoporum (*Myoporum laetum*). The understory is composed primarily of grass lawns, plantain (*Musa* sp.), and garden rose (*Rosa* sp.). At the southwest corner of the biological survey area, the dominant species is kangaroo vine (*Cissus antarctica*), which covers a chain link fence. The understory is composed primarily of non-native ruderal species, including cheeseweed (*Malva parviflora*), prickly lettuce (*Lactuca serriola*), and bristly ox-tongue (*Helminthotheca echioides*). Two native western redbud (*Cercis occidentalis*) and a California sycamore (*Platanus racemose*) are also present in this area.

The biological survey area contains approximately 1.9 acres of non-native ornamental landscaping, representing four percent of the biological survey area.

Planted Agricultural Field

This land cover type is engaged in active agricultural production. The primary crops growing in the survey area at the time of the survey include celery (*Apium graveolens*), cabbage (*Brassica oleracea*), strawberries *(Fragaria ananassa*), and squash (*Cucurbita* sp.).

The biological survey area contains approximately 32.7 acres of this land cover type, representing 65 percent of the biological survey area.

Cleared Land (Fallow Field)

This land cover type is associated with disturbed areas and characterized by dense growth of non-native herbaceous species. It occurs in parts of the survey area that were recently in active agricultural production but were fallow at the time of the survey. Observed species included common sow thistle (*Sonchus oleraceus*), Shepherd's purse (*Capsella bursa pastoris*), and nettle leaf goosefoot (*Chenopodium murale*).

The biological survey area contains approximately 2.3 acre of fallow field, representing five percent of the biological survey area.

Bare Ground

This land cover type in the biological survey area includes the dirt roads, gravel areas, and the active construction zone for the North Pleasant Valley Groundwater Desalter Facility. These areas are kept free of vegetation for human use.

The biological survey area contains approximately 9.22 acre of this land cover type, representing 18 percent of the biological survey area.

Paved

Asphalt-paved land is present in the survey area on SR 34 adjacent to the southern boundary of the project site and in the high school parking lot adjacent to the western boundary. No vegetation is present in these areas.

The biological survey area contains 2.7 acres of paved land, representing five percent of the biological survey area.

Waters and Wetlands

The biological survey area was evaluated for the presence of potential waters and wetlands subject to regulatory agency jurisdiction, including by the United States Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), the Regional Water Quality Control Board (RWQCB), and the County under General Plan Policy 1.5.2-4. Two channelized intermittent channels and one ephemeral agricultural drainage ditch were observed in the biological survey area (Figure 4.3-2).

Channelized Intermittent Stream

The channelized intermittent stream (Grove's Place Drain; "W1" on Figure 4.3-2) runs parallel to and immediately outside the eastern boundary of the project site within the biological survey area. The stream is mapped by the National Wetlands Inventory (USFWS 2020) as Riverine habitat. The stream receives flows from the hills to the north and from surrounding agricultural fields, and empties into Arroyo Las Posas, a seasonal stream with associated riparian vegetation, approximately 325 feet southeast of the survey area. It is engineered to follow a straight-line course. The length of the channel adjacent to the project site has a soft bed and banks composed of native soil. A portion of the channel in the survey area on the opposite (south) side of SR 34 is concrete-lined. Ordinary High Water Mark (OHWM) indicators were observed, including changes in vegetation cover and species composition and presence of surface water and soil saturation. The channel is disturbed by regular maintenance of the channel for agricultural activities to allow continued flow. The length of the channel north of SR 34 was primarily dry at the time of the survey, but wet soil and small pools of water were present in some areas. The concrete-lined section contained significant standing water. Review of historical aerial imagery (Google Earth 2020) indicates that the channel lacks relatively permanent flow of water; however, the channel provides surface flow during and immediately after rain events, and receives regular runoff from agriculture. Therefore, the channel may contribute surface flow to nearby Arroyo Las Posas intermittently during a typical year. Vegetation observed in the channel during the survey is described as bermuda grass – Italian wild rye plant community, consisting primarily of non-native, weedy species including Bermuda grass (*Cynodon dactylon*), bentgrass (*Agrostis* sp.), poison hemlock (*Conium maculatum*), Mexican strangletop (*Leptochloa fusca* ssp. *uninervia*), sedge (*Cyperus* sp.), and castor bean (*Ricinus communis*). However, some areas to the north of the biological study area were dominated by giant scouring rush (*Equisetum hyemale* ssp. *affine*), a native species that is designated by USDA (USDA 2020b) as a facultative wetland indicator.

Wetland indicators for hydric soils, hydrophytic vegetation, and hydrology were present in Grove's Place Drain and the RWQCB would likely assert jurisdiction. Due to the connectivity of Grove's Place Drain to the nearby Arroyo Las Posas and the presence of all three wetland indicators, the USACE would likely assert jurisdiction (Figure 4.3-3).

Approximately 281 linear feet/0.13 acre of Grove's Place Drain occurs within the biological survey area.

Figure 4.3-2 Waters and Wetlands Within the Biological Survey Area

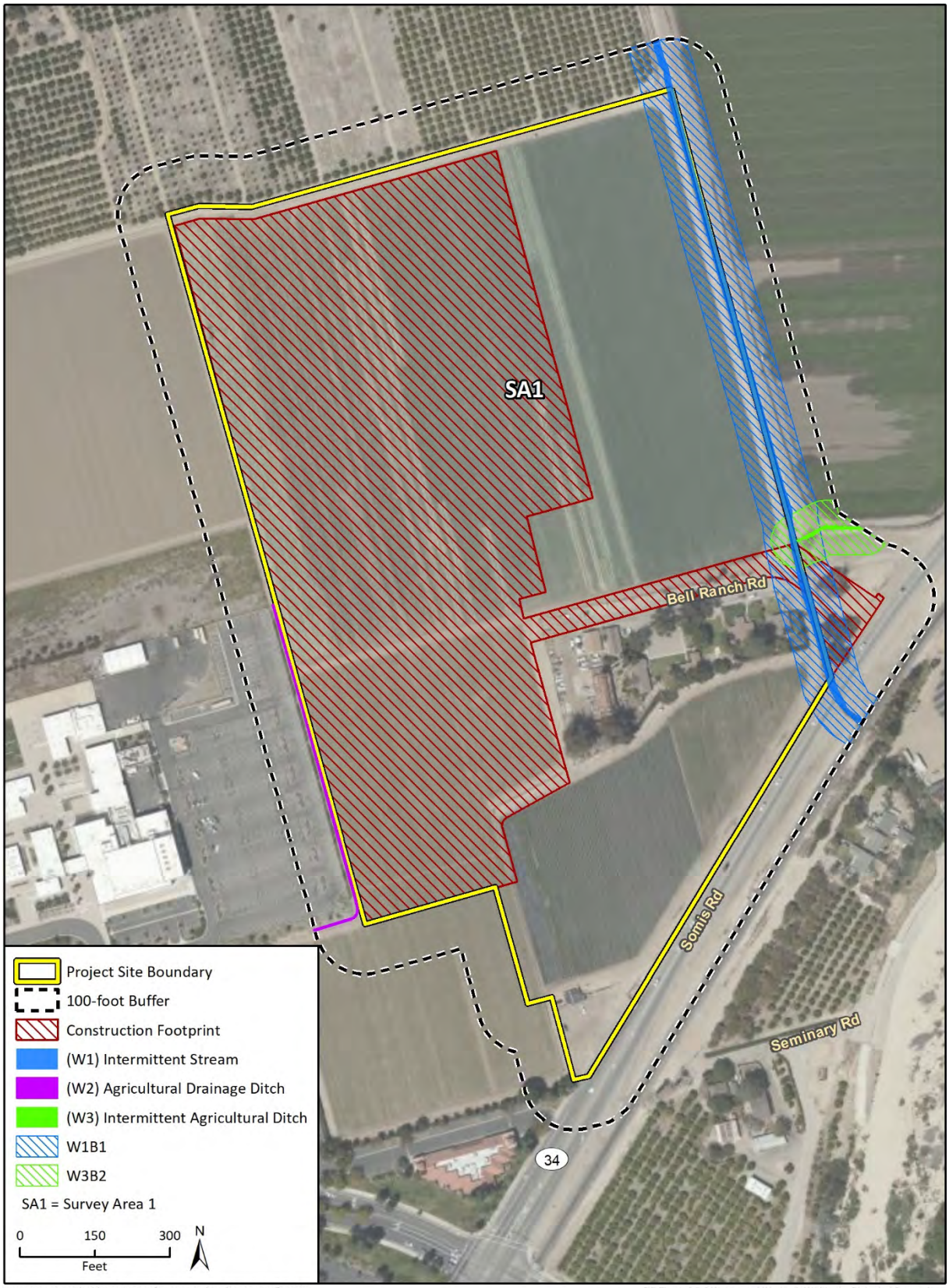

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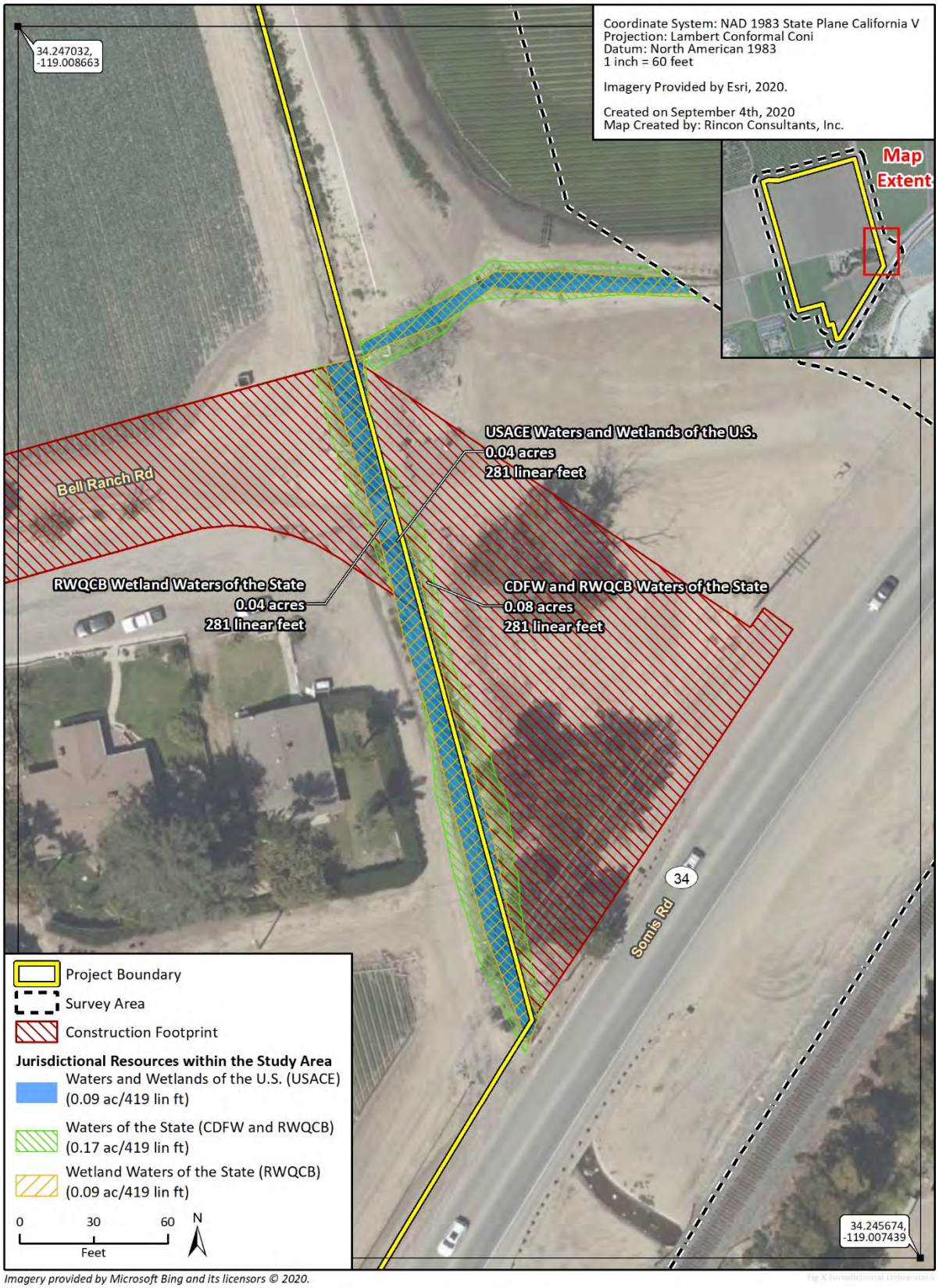
Figure 4.3-3 Jurisdictional Limits of Waters



Ephemeral Agricultural Drainage Ditch

The W2 (see Figure 4.3-2) feature is a human-made agricultural drainage ditch. It is not mapped by the National Wetlands Inventory or the Ventura County Wetland Inventory. No water was present in the ditch at the time of the survey. No OHWM or other signs of flow or wetland indicator plants were observed. The ditch turns to the west at the southwestern corner of the project site and enters a stormwater drain outside the survey area. The ditch conveys irrigation runoff from upland agricultural areas and has limited function and value. Therefore, this feature is not likely subject to USACE, CDFW, or RWQCB jurisdiction.

Approximately 730 linear feet/0.07 acre of the W2 feature occurs within the biological survey area.

Intermittent Agricultural Ditch

The unnamed intermittent agricultural drainage ditch ("W3" on Figure 4.3-2) provides water intermittently, similar to Grove's Place Drain, and provides a direct connection to Grove's Place Drain. Vegetation and soils observed in this drainage is consistent with Grove's Place Drain.

Wetland indicators for hydric soils, hydrophytic vegetation, and hydrology were present in the unnamed intermittent agricultural drainage ditch and the RWQCB would likely assert jurisdiction. Due to the connectivity of the drainage ditch to the nearby Arroyo Las Posas and the presence of all three wetland indicators, the USACE would likely assert jurisdiction (Figure 4.3-3).

Approximately 138 linear feet/0.04 acre of the unnamed intermittent agricultural drainage ditch occurs within the biological survey area.

Species

Observed Species

A total of 61 plant species were identified in the biological survey area, of which eight are native and 53 are non-native. A total of nine wildlife species were observed, all of which are native. See Appendix D for a list of all plant and wildlife species observed in the biological survey area during the survey.

Protected Trees

The Ventura County Non-Coastal Zone Ordinance (NCZO) Section 8107-25 (Tree Protection Ordinance) defines protected trees as (1) all oaks and sycamores with a circumference of 9.5 inches or larger (measured at least 4.5 feet above ground); (2) trees with a historical designation; and (3) trees with a circumference of 90 inches or larger. One protected western sycamore (*Platanus racemosa*) was observed in the biological survey buffer outside the western boundary of the project site. No oaks, sycamores, or any other native tree species were observed in the project site. Several of the non-native blue gums, Peruvian pepper trees, and Brazilian pepper trees observed near the existing residential structures on the project site have a girth of greater than 90 inches and, therefore, are considered heritage trees under the Tree Protection Ordinance.

Special-Status Species and Nests

Observed Species

No special-status species were observed in the biological survey area during the field survey.

Species with Potential to Occur Within the Biological Survey Area

Review of existing literature and a 10-mile radius California Natural Diversity Database (CNDDB) search identified 21 special-status plant species and 36 special-status wildlife species, including state- and federally-listed endangered or threatened species (see Appendix Two of the Initial Study Biological Assessment [EIR Appendix D]). Of these, species that were documented within five miles of the biological survey area or determined to have a moderate to high potential to occur are listed in Table 7 of the Initial Study Biological Assessment (Appendix D), including 9 special-status plant species and 10 special-status wildlife species.

PLANT SPECIES

No special-status plant species are expected to occur in the biological survey area because the entire survey area is disturbed, developed, or engaged in active agricultural use.

WILDLIFE SPECIES

Five special-status wildlife species have low potential to occur in the biological survey area: California legless lizard (*Anniella* spp.), western pond turtle (*Emys marmorata*), coast horned lizard (*Phrynosoma blainvillii*), two-striped gartersnake (*Thamnophis hammondii*), and burrowing owl (*Athene cunicularia*). No special-status wildlife species have moderate or high potential to occur in the biological survey area due to the disturbance of the survey area and lack of suitable habitat.

Nesting Birds

The field survey was conducted during the nesting season, but no nests or birds exhibiting nesting behaviors were observed in the biological survey area. The ornamental trees and shrubs associated with the cluster of existing residential and agricultural structures in the center of the survey area and the structures themselves are suitable nesting habitat for a number of bird species common in the project area. The planted fields, fallow fields, and bare ground that occupy most of the remainder of the biological survey area are marginally suitable nesting habitat for some ground-nesting bird species. Although the value of nesting habitats in the biological survey area is limited by the lack of native vegetation and the high level of disturbance due to agricultural operations, there is a potential for nesting birds protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game (CFG) Code 3503 to occur in the biological survey area.

Wildlife Movement and Connectivity Features

The project site is not located in a mapped wildlife corridor. The biological survey area is not located in the Santa Monica – Sierra Madre Habitat Connectivity Corridor (Spencer et al. 2010) or in an area zoned by the County as a Habitat Connectivity Wildlife Corridor. Because the biological survey area is currently used for agriculture, it generally is not attractive to wildlife.

The nearest natural habitat is in Arroyo Las Posas, a seasonal stream with associated riparian vegetation, approximately 325 feet to the southeast on the opposite side of SR 34 and a railroad track. The channelized intermittent stream on the eastern edge of the survey area (Grove's Place Drain) connects to Arroyo Las Posas and passes beneath the highway and railroad. Grove's Place Drain ("W1" on Figure 4.3-2) may serve as a minor corridor facilitating wildlife movement between Arroyo Las Posas and open space in the Santa Susana Mountains to the north of the survey area.

4.3.1.2 Regulatory Setting

Federal Regulations

Federal Endangered Species Act

The United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) share responsibility for implementing the Federal Endangered Species Act (FESA) (16 USC § 153 et seq.). Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadramous species. Projects that would result in "take" of any federally threatened or endangered species are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

Clean Water Act

Under Section 404 of the Clean Water Act, the USACE has authority to regulate activities that could discharge fill of material into wetlands or other "waters of the United States." Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters (typically a navigable water). The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland value or acres. In achieving the goals of the Clean Water Act, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any fill of wetlands that are hydrologically connected to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetland acres or values is met through avoidance and minimization to the extent practicable, followed by compensatory mitigation involving creation or enhancement of similar habitats.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) of 1918 was originally enacted between the United States and Great Britain (acting on behalf of Canada) for the protection of migratory birds between the two countries. The MBTA has since been expanded to include Mexico, Japan, and Russia. Under MBTA provisions, it is unlawful "by any means or manner to pursue, hunt, take, capture (or) kill" any migratory birds as defined by the MBTA except as permitted by regulations issued by the USFWS. The term "take" is defined by the USFWS regulation to mean to "pursue, hunt, shoot, wound, kill, trap, capture or collect" any migratory bird or any part, nest, or egg of any migratory bird covered by the conventions, or to attempt those activities.

State Regulations

California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California. The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is restricted to direct mortality of a listed species and the law does not prohibit indirect harm by way of habitat modification. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated.

California Fish and Game Code

The CDFW also enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibits take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided.

California Fish and Game Code sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level office to take any bird in violation of the federal MBTA. CDFW administers these requirements.

Species of Special Concern (SSC) is a category used by the CDFW for those species which are considered to be indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The CDFW uses the SSC category as a management tool to include these species in special consideration when decisions are made concerning the development of natural lands. The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA's permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Perennial, intermittent, and ephemeral streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Section 1600 *et seq*. of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over activities that divert, obstruct, or alter the channel, bed, or bank of any river, stream or lake.

Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Board (RWQCB) have jurisdiction over "waters of the State," pursuant to the Porter-Cologne Water Quality Control Act, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements (WDRs) regarding discharges to "isolated" waters of the State (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters

Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction). The RWQCB administers actions under this general order for isolated waters not subject to federal jurisdiction, and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the Clean Water Act for waters subject to federal jurisdiction.

Local Regulations

County of Ventura General Plan

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goal 1.5.1 and Policies 1.5.2-1 through 1.5.2-6 pertain to biological resources.

- **Goals**
  - **1.5.1.** Identify, preserve, and protect significant biological resources in Ventura County from incompatible land uses and development. Significant biological resources include endangered, threatened or rare species and their habitats, wetland habitats, coastal habitats, wildlife migration corridors that facilitate habitat connectivity and wildlife movement, and locally important species/communities.
- **Policies**
  - **1.5.2-1.** Discretionary development which could potentially impact biological resources shall be evaluated by a qualified biologist to assess impacts and, if necessary, develop mitigation measures.
  - **1.5.2-2.** Discretionary development shall be sited and designed to incorporate all feasible measures to mitigate any significant impacts to biological resources. If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.
  - **1.5.2-3.** Discretionary development that is proposed to be located within 300 feet of a marsh, small wash, intermittent lake, intermittent stream, spring, or perennial stream (as identified on the latest USGS 7.5-minute quad map), shall be evaluated by a County approved biologist for potential impacts on wetland habitats. Discretionary development that would have a significant impact on significant wetland habitats shall be prohibited, unless mitigation measures are adopted that would reduce the impact to a less than significant level; or for lands designated "Urban" or "Existing Community," a statement of overriding considerations is adopted by the decision-making body.
  - **1.5.2-4.** Discretionary development shall be sited a minimum of 100 feet from significant wetland habitats to mitigate the potential impacts on said habitats. Buffer areas may be increased or decreased upon evaluation and recommendation by a qualified biologist and approval by the decision-making body. Factors to be used in determining adjustment of the 100-foot buffer include soil type, slope stability, drainage patterns, presence or absence of endangered, threatened or rare plants or animals, and compatibility of the proposed development with the wildlife use of the wetland habitat area. The requirement of a buffer (setback) shall not preclude the use of replacement as a mitigation when there is no other feasible alternative to allowing a permitted use, and if the replacement results in no net loss of wetland habitat. Such replacement shall be "in kind" (i.e. same type and acreage), and provide wetland habitat of comparable biological value. On-site replacement shall be preferred wherever possible. The replacement plan shall be developed in consultation with California Department of Fish and Game.

- **1.5.2-5.** The California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, National Audubon Society, and the California Native Plant Society shall be consulted when discretionary development may affect significant biological resources. The National Park Service shall also be consulted regarding discretionary development within the Santa Monica Mountains or Oak Park Area.
- **1.5.2-6.** Based on the review and recommendation of a qualified biologist, the design and maintenance of road and floodplain improvements, including culverts and bridges shall incorporate all feasible measures to accommodate wildlife passage.

4.3.2 Impact Analysis

4.3.2.1 Significance Thresholds

Per the Initial Study Assessment Guidelines (County 2011), impacts related to biological resources would be potentially significant if the proposed project would:

1. Directly or indirectly, impact one or more plant species by reducing the species' population, reducing the species' habitat, fragmenting its habitat, or restricting its reproductive capacity;
2. Directly or indirectly, impact one or more animal species by reducing the species' population, reducing the species' habitat, fragmenting its habitat, or restricting its reproductive capacity;
3. Temporarily or permanently remove sensitive plant communities through construction, grading, clearing, or other activities;
4. Result in indirect impacts from project operation at levels that will degrade the health of a sensitive plant community;
5. Cause any of the following activities within waters or wetlands: removal of vegetation; grading; obstruction or diversion of water flow; change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; or any disturbance of the substratum;
6. Result in disruptions to wetland or riparian plant communities that will isolate or substantially interrupt contiguous habitats, block seed dispersal routes, or increase vulnerability of wetland species to exotic weed invasion or local extirpation;
7. Interfere with ongoing maintenance of hydrological conditions in a water or wetland;
8. Provide an adequate buffer for protecting the functions and values of existing waters or wetlands;
9. Remove habitat within a wildlife movement corridor;
10. Isolate habitat;
11. Construct or create barriers that impede fish and/or wildlife movement, migration or long-term connectivity or interfere with wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction;
12. Intimidate fish or wildlife via the introduction of noise, light, development or increased human presence; and/or
13. Be inconsistent with the applicable General Plan Goals and Policies for "Biological Resources" in the Initial Study Assessment Guidelines.

4.3.2.2 Project Impacts and Mitigation Measures

Threshold 1:	Would the project, directly or indirectly, impact one or more plant species by reducing the species' population, reducing the species' habitat, fragmenting its habitat, or restricting its reproductive capacity?
Threshold 2:	Would the project, directly or indirectly, impact one or more animal species by reducing the species' population, reducing the species' habitat, fragmenting its habitat, or restricting its reproductive capacity?

IMPACT BIO-1 THE PROJECT WOULD RESULT IN NO DIRECT OR INDIRECT IMPACTS TO SPECIAL-STATUS PLANT OR WILDLIFE SPECIES DUE TO THE DISTURBED NATURE OF THE PROJECT SITE. NO PROTECTED TREES OCCUR WITHIN THE PROJECT CONSTRUCTION FOOTPRINT; THEREFORE, NO PROTECTED TREES WOULD BE IMPACTED. REGULATORY COMPLIANCE WOULD PROTECT NESTING BIRD SPECIES DURING PROJECT CONSTRUCTION. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The biological survey area is entirely within a site that is currently in active agricultural production. The project would not result in any loss of special-status species' habitat. No state- or federally-listed endangered, threatened, or special-status wildlife or plant species were observed in the biological survey area during the field survey.

Special-Status Plant Species

As discussed in the Setting, no special-status plant species are expected to occur in the biological survey area because the entire survey area is disturbed, developed, or engaged in active agricultural use. Therefore, the project would result in no impact to special-status plant species.

Special-Status Wildlife Species

As discussed in the Setting, no special-status wildlife species have moderate or high potential to occur in the biological survey area due to the disturbance of the survey area and lack of suitable habitat. However, five special-status wildlife species have low potential to occur in the biological survey area, including California legless lizard, western pond turtle, coast horned lizard, two-striped gartersnake, and burrowing owl.

California legless lizard, western pond turtle, and two-striped garter snake have low potential to occur in Grove's Place Drain on the eastern side of the survey area but are not expected to occur in the project construction footprint, which is located approximately 300 feet from that habitat (Figure 4.3-2). Coast horned lizard has low potential to occur in Grove's Place Drain or in a small area of grassland habitat mapped on the western side of the survey area (Figure 4.3-1 and Figure 4.3-2). However, coast horned lizard is not expected to occur in the project construction footprint due to existing agricultural use and disturbance on and near the project site. Additionally, transient overwintering individuals of burrowing owl have low potential to occur throughout most of the biological survey area, including the project construction footprint. However, no nesting burrowing owls are currently expected to occur in the biological survey area because the survey area is outside the current nesting range of the species. Therefore, the project would result in less than significant impacts to special-status wildlife species.

Indirect Effects

Special-status species documented in the vicinity of the project site could occur in Arroyo Las Posas to the southeast of the project site, but indirect effects related to noise, lighting, human presence, or dust during project construction and operation are not anticipated due to the distance of project footprint from Arroyo Las Posas. Indirect impacts to fish and other aquatic species in Arroyo Las Posas as a result of sedimentation runoff would be avoided through adherence to the County's Stormwater Quality Management Ordinance No. 4142. Therefore, the project would result in less than significant indirect impacts to special-status species.

Protected Trees

As stated in the Setting, eight trees protected by the County's Tree Protection Ordinance are present in the biological survey area. These trees are located outside the project construction footprint (Figure 4.3-3). Additionally, no construction activities would occur within the driplines of the trees and no tree removal or trimming would occur as part of the project. Therefore, the project would result in no impact to protected trees.

Nesting Birds

Although birds protected by the CFG Code and MBTA may nest in the biological survey area or adjacent properties, no special-status bird species are expected to nest in the biological survey area due to the absence of suitable nesting habitat for avian species. Depending on the distance from construction activities, nesting bird species could be impacted by project construction noise. However, the project would comply with the MBTA and CFG Codes 3503, 3503.3, 3511, and 3513, which protect nesting birds.

In compliance with these regulations, the project applicant would be required to conduct pre-construction surveys for nesting birds. The following measures would be incorporated into the project as Conditions of Approval:

- The project applicant/contractor would conduct all demolition, construction, ground disturbance, and vegetation clearing activities (collectively referred to as "construction activities") in such a way as to avoid protected nesting birds. To that end, no construction activities would occur during the avian breeding and nesting season (February 1 – August 31).
- If, however, construction activities must occur during the nesting season, a pre-construction survey shall be conducted by a qualified biologist for active bird nests (those containing eggs or nestlings, or with juvenile birds still dependent on the nest). The survey shall be conducted by a qualified biologist no more than seven days prior to the initiation of construction activities. The nesting bird survey shall cover the construction footprint plus a buffer of 100 feet, as feasible.
- Any active nests that are present during the pre-construction survey shall be avoided until determined by the biologist to no longer be active. The biologist shall determine appropriate avoidance buffers for each nest based on species, nest location, and types of disturbance proposed in the vicinity of the nest.
- If construction activities are delayed after the survey has been conducted, the qualified biologist shall conduct an additional nesting bird survey such that no more than seven days have elapsed between the last survey and the commencement of construction activities.

With regulatory compliance, impacts to nesting birds would be less than significant.

Mitigation Measure

No mitigation is required.

Threshold 3:	Would the project temporarily or permanently remove sensitive plant communities through construction, grading, clearing, or other activities?
Threshold 4:	Would the project result in indirect impacts from project operation at levels that will degrade the health of a sensitive plant community?

IMPACT BIO-2 THE PROJECT WOULD NOT IMPACT ANY SENSITIVE PLANT COMMUNITIES. POTENTIAL INDIRECT IMPACTS TO SENSITIVE PLANT COMMUNITIES FROM DUST DURING PROJECT CONSTRUCTION WOULD BE LESS THAN SIGNIFICANT.

Plant communities are considered special-status outside the coastal zone if designated sensitive by CDFW (CDFW 2020) or if they are considered Locally Important by the lead agency. One sensitive plant community (giant scouring rush) is present in the biological survey area. It occurs in two small patches in Grove's Place Drain near the northeast corner of the project site (Figure 4.3-1 and Figure 4.3-2). Giant scouring rush is located approximately 300 feet outside the project construction footprint; therefore, no direct impacts to sensitive plant communities would occur as a result of project implementation (Table 4.3-1).

Indirect impacts to the giant scouring rush community would be less than significant because no construction activities would occur within 300 feet of that plant community and run-off from the project site does not enter Grove's Place Drain. Potential indirect impacts from dust during construction would be minimized with adherence to dust control measures in the Ventura County NCZO. In addition, the project landscape plan does not include plant species identified as invasive by the California Invasive Plant Council (Cal-IPC; 2020). Therefore, potential indirect impacts to sensitive plant communities would be less than significant.

Table 4.3-1 Project Impacts to Natural Communities and Land Cover Types

Natural Community/Land Cover Type	Existing Within the Biological Survey Area (acres)	Project Impacts (acres)
Giant Scouring Rush	0.02	0
Bermuda Grass – Italian Wild Rye	0.83	0.07
Wild Oat	0.39	0
Non-Native Ornamental Landscaping	1.95	0
Planted Agricultural Field	32.68	16.91
Cleared Land (Fallow Field)	2.34	0.18
Bare Ground	9.22	1.89
Paved	2.73	0
Total	**50.16**	**19.05**

Mitigation Measures

No mitigation is required.

Threshold 5:	Would the project cause any of the following activities within waters or wetlands: removal of vegetation; grading; obstruction or diversion of water flow; change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; or any disturbance of the substratum?
Threshold 6:	Would the project result in disruptions to wetland or riparian plant communities that will isolate or substantially interrupt contiguous habitats, block seed dispersal routes, or increase vulnerability of wetland species to exotic weed invasion or local extirpation?
Threshold 7:	Would the project interfere with ongoing maintenance of hydrological conditions in a water or wetland?
Threshold 8:	Would the project provide an adequate buffer for protecting the functions and values of existing waters or wetlands?

IMPACT BIO-3 IMPACTS TO POTENTIALLY JURISDICTIONAL WATERS/WETLANDS WITHIN THE BIOLOGICAL STUDY AREA WOULD BE SIGNIFICANT BUT MITIGATABLE.

Construction of the proposed eastern driveway would temporarily impact approximately 0.08 acre (281 linear feet) of streambed within RWQCB and CDFW jurisdiction, approximately 0.04 acre (281 linear feet) of wetland waters of the state within RWQCB jurisdiction, and approximately 0.04 acre (281 linear feet) of wetland and waters of the U.S. within USACE jurisdiction (Figure 4.3-3). Therefore, impacts to waters and wetlands would result from project implementation, which constitutes a potentially significant impact.

Indirect impacts to Grove's Place Drain to the east of the project site would be less than significant because proposed construction activities would occur more than 300 feet from the stream (Figure 4.3-2). This buffer would be adequate to attenuate indirect effects such as noise, dust, and human presence during construction, and the ecological function of the feature would not be affected. Additionally, the stream would not receive runoff from the project site because the land in the project site slopes down to the west and project construction would be required to adhere to the County's Stormwater Quality Management Ordinance No. 4142.

As discussed in the Setting, Arroyo Las Posas, a seasonal stream with associated riparian vegetation, occurs approximately 425 feet south of the project site. The project would not directly impact Arroyo Las Posas. Grove's Place Drain enters Arroyo Las Posas but does not receive flows from the project site. Therefore, sediment from the project site would not impact the riparian plant communities in Arroyo Las Posas. Arroyo Las Posas is located more than 500 feet from any proposed construction activity and is separated from the project site by SR 34 and a railroad track. This buffer would be adequate to attenuate indirect effects such as noise, dust, and human presence during construction, and the ecological function of Arroyo Las Posas would not be affected. As stated above, the project landscape plan does not include plant species identified as invasive by the Cal-IPC (Cal-IPC 2020). The project site is not adjacent to natural areas, and development of the project would not interrupt habitat contiguity or block seed dispersal routes. Therefore, no impacts to Arroyo Las Posas and its riparian plant communities and sensitive species would occur.

Construction and operation of the project would not alter the hydrology of the project site in a manner that would impact the flows of nearby waterways. Post-construction runoff from the project site would be treated in proposed on-site stormwater detention basins. Similar to existing

conditions, outflow from the proposed on-site basins would be released into the City of Camarillo storm drain system. No impact related to ongoing maintenance of hydrological conditions in waters/wetlands would occur.

Mitigation Measures

BIO-3 Jurisdictional Waters Mitigation Plan

The project applicant shall restore herbaceous wetland communities temporarily impacted by project activities, including Giant Scouring Rush and Bermuda Grass – Italian Wild Rye plant communities, at a minimum 1:1 mitigation to impact ratio (estimated at 0.09 acre total based on current design). The project applicant shall contract with a County-approved qualified biologist to prepare a Mitigation Plan that must include restoring these impacted communities occurring in the wetland features within the construction footprint. Planting palettes shall approximate existing species composition, except that non-native species such as Bermuda grass shall not be planted. The Mitigation Plan shall include, but not be limited to, the following components:

- A description of the purpose and goals of the mitigation plan, including the improvement of specific physical, chemical, and/or biological functions at the mitigation site.
- A description of the plant community type(s) and amount(s) that shall be provided by the mitigation and how the mitigation method shall achieve the mitigation project goals.
- A plant palette and methods of salvaging, propagating, and planting the site to be restored.
- Methods of soil preparation.
- Method and timing of irrigation.
- Best Management Practices (BMPs) that shall be utilized to avoid erosion and excessive runoff before plant establishment.
- Maintenance and monitoring necessary to ensure that the restored plant communities meet the success criteria.
- Schedule for restoration activities, including weed abatement, propagating and planting, soil preparation, irrigation, erosion control, qualitative and quantitative monitoring, and reporting to the County.
- Identification of measurable performance standards for each objective to evaluate the success of the compensatory mitigation.
- Identification of contingency and adaptive management measures to address unforeseen changes in site conditions or other components of the mitigation project.

The Jurisdictional Waters Mitigation Plan shall provide for monitoring to be conducted for five years or until the performance criteria are met, whichever occurs sooner. The success criteria are as follows:

- The mitigation site shall attain a native percent cover that reflects that of the target communities occurring in unimpacted reference sites;
- Non-native species shall comprise less than five percent cover and zero percent cover of species listed as “High” on the California Invasive Plant Council’s Invasive Plant Inventory Database (or its successor); and
- Irrigation of the native plantings shall cease no later than the end of the third year of restoration monitoring.

In addition, applicable permits shall be obtained from the appropriate federal, state and local agencies for work within Grove's Place Drain (W1) prior to project initiation. Conditions in these permits may augment or supersede Mitigation Measure BIO-3, if more stringent.

Significance After Mitigation

Impact BIO-3 would be less than significant with implementation of Mitigation Measure BIO-3.

Threshold 9:	Would the project remove habitat within a wildlife movement corridor?
Threshold 10:	Would the project isolate habitat?
Threshold 11:	Would the project construct or create barriers that impede fish and/or wildlife movement, migration or long-term connectivity or interfere with wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction?
Threshold 12:	Would the project intimidate fish or wildlife via the introduction of noise, light, development or increased human presence?

IMPACT BIO-4 NO DIRECT IMPACT TO LOCAL OR REGIONAL WILDLIFE MOVEMENT OR HABITAT CONNECTIVITY WOULD OCCUR. INDIRECT IMPACTS ASSOCIATED WITH INTIMIDATION OF WILDLIFE WOULD BE LESS THAN SIGNIFICANT.

As previously discussed, the project site is not located in a mapped wildlife corridor. Little wildlife movement is expected to occur in the project site due to the lack of native habitats and high level of disturbance. Grove's Place Drain is identified as a potential corridor for wildlife movement along the eastern edge of the survey area. However, Grove's Place Drain is located entirely outside the construction footprint (more than 300 feet from any proposed construction activity). The proposed project would not remove or alter any native habitats or impede wildlife movement at a level substantially greater than the existing conditions. Therefore, the project would not isolate habitat or interfere with wildlife movement patterns and no impact would occur.

During construction and operation of the project, the project site would have increased activity, human presence, and noise that could affect wildlife. Wildlife use of the project site is expected to be low under existing conditions, as the project site and vicinity are used for agriculture. Additionally, any animals occurring in the area are likely accustomed to the higher levels of noise and other disturbance from agricultural operations. The nearest natural habitat (in Arroyo Las Posas) is approximately 325 feet to the southeast of the biological survey area, across a busy roadway (SR 34) and a railroad track. Grove's Place Drain is located more than 300 feet from proposed construction activity. Due to the distance and high level of existing disturbance, the project would not substantially elevate noise, light, or human presence in the project area. Therefore, indirect impacts associated with intimidation of wildlife would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 13:	Would the project be inconsistent with the applicable General Plan Goals and Policies for "Biological Resources" in the Initial Study Assessment Guidelines?

IMPACT BIO-5 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would be consistent with the County General Plan goals and policies listed previously under Regulatory Setting. The project's consistency is analyzed in detail in Section 4.10, *Land Use and Planning*. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

4.3.2.3 Cumulative Impacts

The project area is highly disturbed by agricultural crop production and urbanized development (e.g., residential, commercial, and institutional uses). The cumulative projects included in Table 3-1 would result in minimal impacts to biological resources due to required implementation of regulatory requirements and mitigation measures related to sensitive biological resources. As discussed above, the proposed project would result in less than significant impacts to biological resources, with the exception of potential jurisdictional waters under Impact BIO-3. Mitigation for waters of the U.S./waters of the state would be similar to the minimum required for other cumulative projects that may result in impacts to such features. Therefore, the project would not result in a cumulatively considerable contribution to a cumulative biological resources impact.

4.4 Cultural Resources – Historic

This section evaluates potential impacts to cultural resources associated with the proposed project. This section is based in part on the Cultural Resources Assessment prepared by Rincon Consultants, Inc. (Rincon) and included in Appendix E.

4.4.1 Setting

4.4.1.1 Prehistoric Context

The prehistoric chronology for southern California is generally divided into the following periods: the Early Man Horizon (ca. 10,000-6,000 BCE), the Milling Stone Horizon (6,000-3,000 BCE), the Intermediate Horizon (3,000 BCE-CE 500), and the Late Prehistoric Horizon (CE 500-Historic Contact; Wallace 1955, 1978). The project site lies in the Santa Barbara Subregion of the Southern Coast (Archaeological) Region, one of eighteen organizational subdivisions of the state (Moratto 1984:Fig. 1).

Early Man Horizon (ca. 10,000-6,000 BCE)

Early Man Horizon sites are generally associated with a greater emphasis on hunting than later horizons. Recent data indicate that the Early Man economy was a diverse mixture of hunting and gathering, including a significant focus on aquatic resources in coastal areas (e.g., Jones et al. 2002) and on inland Pleistocene lakeshores (Moratto 1984). A warm and dry 3,000-year period called the Altithermal began around 6,000 BCE. The conditions of the Altithermal are likely responsible for the change in human subsistence patterns at this time, including a greater emphasis on plant foods and small game.

Milling Stone Horizon (6,000-3,000 BCE)

Wallace (1955:219) defined the Milling Stone Horizon as "marked by extensive use of milling stones and mullers, a general lack of well-made projectile points, and burials with rock cairns." The dominance of these artifact types indicate a subsistence strategy oriented around collecting plant foods and small animals. Lithic artifacts associated with Milling Stone Horizon sites are dominated by locally available tool stone. In addition to ground stone tools such as manos and metates, chopping, scraping, and cutting tools were very common during this period (Kowta 1969). The mortar and pestle, associated with acorns or other foods processed through pounding, were first used during the Milling Stone Horizon and increased dramatically in later periods (Wallace 1955, 1978; Warren 1968).

Intermediate Horizon (3,000 BCE-CE 500)

The Intermediate Horizon is characterized by a shift toward a hunting and maritime subsistence strategy, as well as greater use of plant foods. During the Intermediate Horizon, a noticeable trend occurred toward greater adaptation to local resources including a broad variety of fish, land mammal, and sea mammal remains along the coast. Tool kits for hunting, fishing, and processing food and materials reflect this increased diversity, with flake scrapers, drills, various projectile points, and shell fishhooks being manufactured. Mortars and pestles became more common during this transitional period, gradually replacing manos and metates as the dominant milling equipment

(e.g., Glassow et al. 1988; True 1993). Mortuary practices during the Intermediate Horizon typically included fully flexed burials oriented toward the north or west (Warren 1968:2-3).

Late Prehistoric Horizon (CE 500-Historic Contact)

During the Late Prehistoric Horizon, the diversity of plant food resources and land and sea mammal hunting increased even further than during the Intermediate Horizon. More classes of artifacts were observed during this period and high quality exotic lithic materials were used for small finely worked projectile points associated with the bow and arrow. Steatite containers were made for cooking and storage and an increased use of asphalt for waterproofing is noted. More artistic artifacts were recovered from Late Prehistoric sites and cremation became a common mortuary custom. Larger, more permanent villages supported an increased population size and social structure (Wallace 1955:223).

The period between 500 CE and European contact is divided into three regional patterns: the Chumash Tradition present mainly in the region of Santa Barbara and Ventura counties; the Takic or Numic Tradition present mainly in the Los Angeles and Orange Counties region; and the Yuman Tradition present mainly in the San Diego region (Warren 1968). After 500 CE, a wealth of ornaments, ceremonial, and artistic items characterize the Chumash Tradition (Warren 1968) along the central coast and offshore islands. Characteristic mortuary practices during the Chumash Tradition included burial in crowded cemeteries. Burials are normally flexed, placed face down, and oriented toward the north or west (Warren 1968:5).

4.4.1.2 Ethnographic Context

The project site lies in an area historically occupied by the Ventureño Chumash, so called after their historic period association with Mission San Buenaventura (Grant 1978a). The Chumash spoke six closely related Chumashan languages, which have been divided into three branches: Northern Chumash (consisting only of Obispeño); Central Chumash (consisting of Purisimeño, Ineseño, Barbareño, and Ventureño); and Island Chumash (Jones and Klar 2007:80). Groups neighboring Chumash territory included the Salinan to the north, the Southern Valley Yokuts and Tataviam to the east, and the Gabrielino-Tongva to the south.

Early Spanish accounts describe the Santa Barbara Channel as heavily populated at the time of contact. Estimates of the total Chumash population range from 8,000-10,000 (Kroeber 1925:551) to 18,000-22,000 (Cook and Heizer 1965: 21). The village of *šukuw* (or *shuku*), at Rincon Point, was encountered by Gaspar de Portola in 1769. This village had 60 houses and seven canoes, with an estimated population of 300 (Grant 1978b).

The *tomol*, or wooden plank canoe, was an especially important tool for the procurement of marine resources and for maintaining trade networks between Coastal and Island Chumash. Sea mammals were hunted with harpoons, while deep-sea fish were caught using nets and hooks and lines. Shellfish were gathered from beach sands using digging sticks, and mussels and abalone were pried from rocks using wood or bone wedges. The acorn was an especially important resource for many California tribes. Acorn procurement and processing involved the manufacture of baskets for gathering, winnowing, and cooking and the production of mortars and milling stones for grinding. Bow and arrow, spears, traps and other various methods were used for hunting (Hudson and Blackburn 1983). The Chumash also manufactured various other utilitarian and non-utilitarian items. Eating utensils, ornaments, fishhooks, harpoons, and other items were made using bone and shell. Olivella shell beads were especially important for trade.

The Spanish missions and later Mexican and American settlers dramatically altered traditional Chumash manners of life. Chumash population was drastically reduced by the introduction of European diseases. Nevertheless, many Chumash descendants still inhabit the region.

4.4.1.3 Historic Context

Post-European contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present).

Spanish Period (1769–1822)

Spanish exploration of California began when Juan Rodriguez Cabrillo led the first European expedition into the region in 1542. During this expedition, Cabrillo anchored in Malibu Lagoon and named the area Pueblo de las Canoas for the Chumash canoes. For more than 200 years after the initial expedition, Spanish, Portuguese, British, and Russian explorers sailed the California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). In 1769, Gaspar de Portolá and Franciscan Father Junipero Serra established the first Spanish settlement at Mission San Diego de Alcalá. This was the first of 21 missions erected by the Spanish in what was then known as Alta (upper) California between 1769 and 1823. Mission San Buenaventura was founded in 1782. It was during this time that initial Spanish settlement of the project vicinity began.

Mexican Period (1822-1848)

The Mexican Period commenced when news of the success of the Mexican Revolution (1810-1821) against the Spanish crown reached California in 1822. This period saw the privatization of mission lands in California with the passage of the Secularization Act of 1833. This Act enabled Mexican governors in California to distribute mission lands to individuals in the form of land grants. Successive Mexican governors made more than 700 land grants between 1822 and 1846, putting most of the state's lands into private ownership for the first time (Shumway 2007). About 20 land grants (ranchos) were located in Ventura County. The approximately 26,623-acre Rancho Las Posas, originally granted to Jose Carrillo in 1824 (or 1834, depending on the source) and later confirmed to Jose de la Guerra y Noriega (Mason 1883; Stork 1891; Westergaard 1920), includes the project site.

In 1846, the Mexican-American War was initiated following the annexation of Texas by the United States and a dispute over the boundary of the state between the United States and Mexico. On January 10, leaders of the pueblo of Los Angeles surrendered peacefully after Mexican General Jose Maria Flores withdrew his forces. Shortly thereafter, newly appointed Mexican Military Commander of California, Andrés Pico, surrendered all of Alta California to U.S. Army Lieutenant Colonel John C. Fremont in the Treaty of Cahuenga (Nevin 1978).

American Period (1848-Present)

The Mexican Period officially ended in February 1848 with the signing of the Treaty of Guadalupe Hidalgo, formally concluding the Mexican-American War. Per the treaty, the United States agreed to pay Mexico $15 million for conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico and Wyoming. California gained statehood in 1850, and this political shift set in motion a variety of factors that began to erode the rancho system.

In 1848, the discovery of gold in northern California led to the California Gold Rush, though the first gold was found in 1842 in San Francisquito slightly east of Ventura County (Workman 1935: 107; Guinn 1977). The presence of commercial grade oil in Ventura County was recognized in 1852 at Rancho Ojai (Franks and Lambert 1985).

By 1853, the population of California exceeded 300,000. Horticulture and livestock continued to dominate the southern California economy through 1850s. Despite a severe drought in the 1860s, which decimated cattle herds and drastically affected rancheros' source of income, thousands of settlers and immigrants continued to pour into the state after the completion of the transcontinental railroad in 1869. Property boundaries that were loosely established during the Mexican era led to disputes with new incoming settlers, problems with squatters, and lawsuits. Due to the initiation of property taxes, many southern California ranchers became encumbered by debt and the cost of legal fees to defend their property, and much of the rancho lands were sold or otherwise acquired by Americans. Most of these ranchos were subdivided into agricultural parcels or towns (Dumke 1944).

Ventura County was officially divided from Santa Barbara County in 1873. The Saugus to Santa Barbara Branch (or Santa Paula Branch) of the Southern Pacific Railroad was constructed in the mid-1880s, encouraging travel through, and settlement of the Santa Clara River Valley, as well as creating a large distribution network for its citrus and other products (Sperry 2006). In the 1880s, a dramatic boom arrived in southern California, fueled by various factors including increasingly accessible rail travel, agricultural development and improved shipment methods, and favorable advertisement (Dumke 1944). The first version of the Southern Pacific's Coast Line, between Los Angeles and Santa Barbara, was completed in 1900 through the Santa Clara Valley. A later version through Santa Susana Pass and bypassing the Saugus Branch was completed in 1904, offering a coastal alternative to the Central Valley mainline.

4.4.1.4 Local Context – Town of Somis

The town of Somis was developed on the lands of Rancho Las Posas. Thomas Bard and David T. Perkins, in pursuing land development, formed the Las Posas Land and Water Company in 1888 and leased Rancho Las Posas land to farmers who grazed sheep, and grew barley, wheat, beans, beets and walnuts, among other crops (Triem 1985; Gidney 1917; Storke 1891). The wharf in Hueneme served these farmers in shipping their products. In 1892 Thomas Bard had a survey completed and the town site laid out; its name is said to have come from the Chumash name for scrub oak spring (Triem 1985). Running through the center of the town was Central Avenue (today called Somis Road) and intersecting streets included North Street, and Rice Street and Bell Street, named after the farming families who owned the nearby land: Peter Rice and Robert Bell (Ventura County Recorder 1892). Sale of town lots carried a stipulation prohibiting the use of alcohol for manufacture, sale or consumption. In 1900, the Southern Pacific Railroad extended a branch line through Somis which was completed through Santa Susanna in 1904, improving local farmers' access to outside markets (Triem 1985).

Somis remained an agricultural community with slow growth, with a population of approximately 75 residents reported before World War II. Shortly after the war ended, subdivision of land created additional town lots, expanding the town size (Ventura County Recorder 1948 and 1953). Somis' population grew to 400 residents by 1992 (McClellan 1992). The current Somis population is approximately 3,000.

4.4.1.5 Cultural Resources Records Search

A records search of the California Historical Resources Information System (CHRIS) was conducted at South Central Coastal Information Center (SCCIC) at California State University, Fullerton on April 3, 2020 to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the project site and a 0.5-mile radius surrounding it. The National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historical Landmarks list, and Built Environment Resources Directory, as well as its predecessor the California State Historic Property Data File, were also reviewed. These records did not identify any cultural resources on the project site or immediate vicinity. Additionally, the Archaeological Determination of Eligibility list was reviewed. Results of the records search can be found in Appendix A of the Cultural Resources Assessment (Appendix E).

The SCCIC records search identified 14 previously conducted cultural resources studies within a 0.5-mile radius of the project site. Three studies (VN-00575, VN-00590, and VN-01838) include a portion of the project site and are summarized below.

VN-00575

Robert Lopez prepared VN-00575 as part of the Proposed Swepi Well Locations and Pipeline Routes in 1988. The study was for a proposed subdivision of a 129-acre parcel. This study included literature review and field reconnaissance of a 17.8-acre parcel and approximately 35 miles of pipeline. Robert Lopez observed three previously recorded cultural resources along portions of the proposed pipeline. None of these resources are on the project site or within the 0.5-mile buffer.

VN-00590

Robert Lopez prepared VN-00590, as part of the proposed Off-Campus Center Siting Study for the California State University in 1986. This study included background research and a field survey. No cultural resources were identified. Lopez analyzed five locations throughout Ventura County, totaling 1,624 total acres. The portion of VN-00590 within the cultural study area is negative for cultural resources and no other portions of VN-00590 are within 0.5 mile of the project site.

VN-01838

Robert Lopez prepared VN-00345, *An Archaeological Reconnaissance of the Area Involved in Parcel Map Waiver No. 970, Ventura County, California*, in 1999. The study was for a proposed subdivision of a 129-acre parcel. This study included a records search of the Ventura County Archaeological Society and the University of California, Los Angeles' Archaeological Information Center, literature review, and a field reconnaissance. Lopez observed no resources during any portion of the cultural study area.

4.4.1.6 Cultural Field Survey Results – Built Environment Resources

A qualified archaeologist and a qualified architectural historian conducted pedestrian surveys of the project site on April 28 and August 25, 2020. The built environment pedestrian survey consisted of a visual inspection of all built environment features over 45 years of age. Buildings and associated features were documented to assess their construction, alterations, overall condition and integrity, and to identify any potential character-defining features.

2789 Somis Road

The archival research and field survey identified a grouping of eight buildings sited in the southeastern portion of the project site with an associated address of 2789 Somis Road. Because this grouping contains buildings that are over 45 years of age and are historically associated with one another, it was recorded and evaluated for historical significance as a single resource on California Department of Parks and Recreation 523 Series Forms (DPR forms), which are included in Appendix C of the Cultural Resources Assessment (EIR Appendix E). Below is a summary of the property's existing conditions, developmental history, and eligibility for listing in the NRHP and CRHR and as a Ventura County Landmark.

Property Description

The property at 2789 Somis Road is used for agricultural production and is located adjacent to and west of Somis Road, slightly north of Las Posas Road, in unincorporated Ventura County. Originally part of a larger ranch, the site is currently 36.36 acres and includes a grouping of eight residential and support buildings at the southeast corner, otherwise surrounded by agricultural fields (Figure 4.4-1). Access is provided by an unpaved road (Bell Ranch Road) that branches off Somis Road and enters the property at east. The eight buildings are surrounded with mature plantings, grassy lawn areas, and accompanying gardens. A single mobile-home is located at the southern portion of the building grouping. There are three agricultural fields located to the south, west, and north of the building grouping respectively. See Figures 6 through 13 in the Cultural Resources Assessment (EIR Appendix E) for photographs of the project site buildings.

RESIDENCE NO. 1

The easternmost building on the project site is a one-story, rectangular-planned residence. The vernacular bungalow-style building sits on a concrete foundation, is clad in wooden lap siding, and exhibits original one-over-one wood sash windows of various sizes throughout. The primary entry to the building, a single, multi-panel wooden door that appears original, is offset on the north elevation. The building is topped with a low-pitched front-gabled roof with moderate overhanging eaves, which are enclosed and supported with three cantilevered exposed beams. Slatted wooden gable vents are present. A satellite dish has been mounted to the roof. Surrounding the residence inside a white picket fence is a lush lawn and mature plantings including palm and orange trees in addition to ornamentals. Although research limitations prevented definitively dating the building, based on visual observation, it appears to date to circa 1920. The building appears minimally altered and is in good condition.

RESIDENCE NO. 2

Sited roughly 30 feet west of Residence No. 1 and separated by a hedge row of mature plantings, Residence No. 2 is a one-story T-planned vernacular building also built in a bungalow style. The building is clad in wooden lap siding and features one-over-one wood sash windows of various size throughout in addition to a single-light picture window on the primary (north) elevation, also wood-framed. Two entrances to the building, single wooden multi-light doors, are accessible via a semicircular concrete patio at the front of the building. The building is topped with a low-pitched intersecting gabled roof with moderate overhanging eaves clad in asphalt shingles. Eaves are enclosed and supported with cantilevered exposed beams. Slatted wooden gable vents are present and the building features two brick and mortar chimneys. Surrounding the building inside a wooden horizontal fence is a lush lawn and mature plantings including palm, avocado and cypress trees in

Figure 4.4-1 Buildings Associated with 2789 Somis Road

addition to ornamentals. Although research limitations prevented definitively dating the building, based on visual observation, it appears to date to circa 1920. The building appears minimally altered and is in good condition.

RESIDENCE NO. 3

Sited roughly 60 feet west of Residence No. 2 and set back roughly 50 feet further south y, Residence No. 3 is a one-story, L-planned vernacular building built in a bungalow style. The building sits on a raised poured concrete perimeter foundation and is clad in wooden lap siding. Visual observation suggests its footprint was expanded westward following its initial construction, potentially more than one time. The original portion of the building features one-over-one wood sash windows, some which appear in pairs, while the apparent addition features aluminum and vinyl sliders. The building includes several entryways, two of which on the primary, north elevation are contained under gabled overhangs supported by wooden columns; these are accessible via two concrete steps.

In the western portion of the building is a passthrough that leads from the front to the rear of the building. Although contained under a single roof structure, the passthrough functionally divides the building into two individual interior spaces. The building is topped with a low-pitched, intersecting gabled roof clad in asphalt shingles. Exposed rafters and cantilevered decorative exposed beams support the roof. Slatted wooden gable vents are present, and no chimneys appear extant. The building is set back behind and surrounded by a lawn and decorative plantings including rose bushes. Surrounding the building inside a wooden horizontal fence is a lush lawn and mature plantings including palm, avocado and cypress in addition to ornamentals. Although research limitations prevented definitively dating the building, it appears to have been built before 1945. Aside from the aforementioned addition, the building appears minimally altered and is in good condition; it is currently being used as an office.

RESIDENCE NO. 4

Residence No. 4 is sited roughly 40 feet west of Residence No. 3. The vernacular bungalow-style residence is a one-story and features a rectangular footprint. The building sits on a raised concrete perimeter foundation and is clad in wooden lap siding. It features one-over-one wood sash windows that appear in pairs or groupings of three. Two entrances are included, one offset (to the north) on the east elevation and another offset (to the south) on the west. Both entrances feature a single wooden door accessible via a concrete step and small porch sheltered under a gabled overhang supported with square wooden columns. The door at rear is topped with a single-light wooden transom sash; that on the primary, east elevation is bracketed with windows. The building is topped with a low-pitched, gabled roof clad in asphalt shingles. Exposed rafters and cantilevered exposed beams (decorative) support the roof. Slatted wooden gable vents are present. A brick and mortar chimney featuring a stepped design is exposed on the north elevation. The building is set back behind and surrounded by a lawn and ornamental plantings including beds of lilies. Mature cypress and orange trees surround the building at rear. Although research limitations prevented definitively dating the building, based on visual observation, it appears to have been built before 1945. The building appears minimally altered and is in good condition; it is currently being used as an office.

RESIDENCE NO. 5

Sited just northwest of Residence No. 4, Residence No. 5 is a one-story residence exhibiting an L-shaped footprint. The vernacular building is clad in wooden board and batten siding and features

one-over-one wood sash windows of varying size. The building is topped with an intersecting, medium-pitched gabled roof clad in asphalt shingles with exposed rafters. A partial length concrete porch sheltered under the main roof structure lines the primary, east elevation. The building's primary entry, a single wooden door covered with a wooden screen door, is accessible via the porch. The building includes two secondary entrances on the north and west elevations, both accessible via steps and a concrete stoop. The door on the north elevation appears non-original while all other doors and windows appear original. The building is surrounded with mature vegetation, including cypress trees and rose bushes, to its south and west. Although research limitations prevented definitively dating the building, based on visual observation, it appears to predate the Residence Nos. 1 and 2 and is estimated to have been built earlier in the twentieth century. It appears minimally altered and is in good condition.

Barn No. 1

Barn No. 1 is a one-story, rectangular-planned utilitarian building sited adjacent to the west of Residence No. 4. The building is topped with a gabled roof with moderate overhangs and exposed rafters clad in rolled asphalt. It is clad in wooden lap siding and exhibits no window openings. Original barn doors on the north and south elevations have been removed and their large openings infilled with a combination of board and batten siding and solid, contemporary doors (two on each elevation). A small shed-like addition has been added to the building's northwest corner to provide covered storage. Compared with property residences, the building is surrounded with minimal vegetation. Although research limitations prevented definitively dating the building it appears to date to have been built before 1945. It appears relatively intact and in fair condition; it is currently used for storage.

Barn No. 2

Located roughly 25 feet south of Barn No. 1, Barn No. 2 is a monitor barn with an apparent addition on the north end, creating roughly a L-shaped plan. It is clad in corrugated vertical metal paneling. The building is topped with a gabled clerestory roof clad in corrugated metal paneling consistent with siding material. It exhibits limited window openings; those extant throughout are relatively small and include various types of metal window sash. Large door openings are featured on the south and west elevations of the building. An original sliding metal-clad barn door remains extant on the south elevation door opening; the door on the west elevation appears to be non-original. Compared with the property's residences, the building is surrounded with minimal vegetation. Although research limitations prevented definitively dating the building it appears to date to have been built before 1945. The building appears relatively intact and in fair condition; it is currently used as a workshop.

Barn No. 3

Barn No. 3 is located roughly 20 feet south of and sited trending west-east to face Barn No. 2. The utilitarian building is a one story in height and features a rectangular footprint. It is clad in vertical wooden siding (some areas are board-and-batten), painted red. The building is topped with an exaggerated shed roof clad in corrugated metal paneling with minimal overhang and exposed rafters. Minimal window openings are included but the primary (north) elevation is lined with large openings covered with wooden sliding barn doors that appear original. It is surrounded with minimal vegetation although two large eucalyptus trees are extant to its immediate rear (south). Although research limitations prevented definitively dating the building it appears to date to have

been built before 1945. The building appears minimally altered and is in fair condition; it is currently used for storage.

Property History

The built environment at 2789 Somis Road was once part of a larger ranch established in the 19th century. Known as Bell Ranch, it was initially developed in the 1870s by early and notable Ventura County settlers Peter Rice and Robert Bell, and subsequently operated by Thomas Bard's Berylwood Investment Company beginning in the early 20th century. As discussed further below, these individuals and entities made significant contributions to the early agricultural development in Ventura County.

Peter Rice was born in Pennsylvania in 1818 and moved to Ohio with his parents at the age of five. As an adult he worked in the purchase and sale of cattle, and in the fur business, at which he was very successful. Rice bought a farm in Richland County, Ohio and married Isabella Turbutt. In 1849 they set out for California and initially settled in the northern part of the state. Rice was involved in mining, lumber, stagecoach lines, and the building of bridges and turnpikes. Drawn by the discovery of silver, he went to Virginia City, Nevada and successfully engaged in the development of sawmills and ditches. In 1871 Rice made a trip to Ventura County where he invested in a 1,150-acre ranch on the Rancho Las Posas and eventually relocated his family to the ranch (Mason 1883).

Robert Bell also arrived in Ventura County in 1871 by way of Ohio and northern California. Born in Richland County Ohio in 1842, he initially settled in Yuba County where he worked as a ranchman for several seasons. He relocated to Ventura County in 1871, purchasing 300 acres of land in the Somis area and improving the land to a tillable condition and grew beans, beets and hay. In 1877 he married Peter Rice's daughter, Rebecca Lucretia Rice, and would subsequently have three children, Polly, Bertha and Walter (Guinn 1907).

Soon after their arrival in Ventura County, Peter Rice and Robert Bell established an agricultural partnership known as Rice & Bell in the mid 1870s. By the end of the decade, Rice & Bell were invested in a farm, which appears to have included the current project site, covering 1,130 acres, with up to 3,000 acres also cultivated in adjoining lands (Hampton 2002; Mason 1883). Records from the late 1870s describe Rice & Bell's ranch as having "more the appearance of a village than the homes of quiet farmers; these enterprising and well-known gentlemen farm on so large a scale, that to give anything like a description of their ranch would require more space than we can give at the present" (Hampton 2002). Although it is unclear whether any of these buildings remain within the current project site, Rice & Bell's ranch was described as containing an adobe ranch house, a barn, machinery storehouse, horse stables, a blacksmith shop, four granaries, cribs, and a yard and orange trees. The ranch produced barley, wheat and corn, and was used for hog-raising. In the 1890s, the Rice & Bell ranch was also reported to be growing beans and walnuts. Peter Rice died in 1890, but Bell and his wife Rebecca continued to maintain the farming business into the following decades (Hampton 2002; *Los Angeles Times* 1997). The Bell's 42-year tenure on the ranch established 2789 Somis Road's identity in the community through the following decades as the Bell Ranch.

Around 1920, Robert and Rebecca Lucretia Bell appear to have sold the ranch to the Berylwood Investment Company (*Oxnard Daily Courier* 1923; *Los Angeles Times* 1997). The Berylwood Investment Company was founded in 1911 by Thomas R. Bard, a prominent politician, businessman, and key figure in the development of Ventura County. Soon after its formation and under the direction of the Bard family, Berylwood Investment Company began improvements to properties in the Las Posas and Simi valleys. Thomas' son Richard Bard was appointed general manager in 1917

and various members of the Bard family would continue to oversee leadership roles in the company into the following decades. By the 1950s the company's holdings included nearly 2,000 acres of orchards, over 1,800 acres of beans and other irrigated row crops, and over 3,500 acres of open land and pasture, part of which was planted to barley and hay. This acreage was located at three ranches including the Bell Ranch, Hondo Ranch and Simi Ranch. The company's headquarters were once located in downtown Hueneme but in 1950 moved to a hilltop overlooking Somis, and their original office building became Port Hueneme City Hall (*Oxnard Press Courier* 1957).

Following the transfer of management to the Berylwood Investment Company circa 1920, the ranch became known as the B.I. Bell Ranch, the "B.I." a reference to the ranch's new management (Robertson, n.d.). Although the extant buildings on the property could not be definitively dated due to research limitations, Residence Nos. 1, 2 and 5 were constructed prior to 1927 as demonstrated by an aerial photograph from that year. Residence No. 5 may predate the other buildings. However, it is unclear whether Residences Nos. 1 and 2 were constructed during the property's association with Rice & Bell or the Berylwood Investment Company. The additional extant buildings described above appear to date to the post 1940s per historic aerial photographs (UCSB Map & Imagery Lab, various). Rebecca Lucretia Bell died in 1928 and Robert Bell died in 1930; however, it is unclear where they were living at this time (R.L. Polk & Co. 1956; Hampton 2002; Find a Grave 2020).

In the 1940s the majority of the Bell Ranch (which included the project site and surrounding lands) was planted with orchard rows (UCSB Map & Imagery Lab, various). By the 1950s additional orchards had been planted closer to the hill to the north, and the land south of the ranch complex was planted with lower-scale row crops (UCSB Map & Imagery Lab 1959). It appears subdivision of the ranch land adjacent to Las Posas Road began by the 1960s and continued through the 1970s. By the 1960s some of the former orchard land fronting Las Posas Road (slightly west of the project site) had been developed with various uses that appear to include office, commercial and industrial (NETRonline 1967).

The company Kaiser Aetna purchased the Bell Ranch property from Berylwood Investment Company in 1969 (*Oxnard Press Courier* 1971a). Kaiser Aetna had an Agricultural Services division which provided management services for agricultural properties and conducted real estate development. During its ownership of the Bell Ranch, the company replanted orchards to replace poor performing and diseased trees, installed new irrigation, and planted new citrus and avocado acreage. The Bell Ranch served as headquarters for Kaiser Aetna's Agricultural Services and its Agricultural Operations Division (*Oxnard Press Courier* 1971a and 1977).

Online Ventura County Recorder and Assessor records indicate that by 1970, Kaiser Aetna began surveying the property for subdivision. The project site was included in a tract called the Peter Rice Tract, and the T.R. Bard Tract was mapped adjacent to the north (Ventura County 1970. Record of Survey, 37RS64). Another tract map made in 1974 created several parcels, of which the 112.9-acre Parcel 1 included the subject property (Parcel Map 16PM 98).

In the early 1970s Kaiser Aetna formulated a 10,000-acre master planned, multi-use development for a portion of the project site. At the time, Bell Ranch was described as encompassing 1,200 acres (*Oxnard Press Courier* 1971b). However, the master plan was never fully realized and newspaper accounts state the development area was reduced in size (*Oxnard Press Courier* 1975). The company sold 2+ acre homesites planted with avocado trees near Los Angeles Avenue, and developed properties fronting Las Posas Avenue (which today include a medical building and a school) (*Oxnard Press Courier* 1971a; NETRonline 1967, 1969 and 1978).

In 1977, a new corporation formed by five former employees of Kaiser Aetna and called Ag Land Services Inc. purchased Kaiser Aetna's Agricultural Services Division (*Oxnard Press Courier* 1977). Located at 2789 Somis Road, it appears Ag Land Services Inc. has remained at that location through present day. The company is involved in agricultural consulting and management of numerous ranches in the Somis, Camarillo, Moorpark and Ventura areas (Citrus Pest & Disease Prevention Program 2020).

Since this time, the larger ranch property continued to be further subdivided and developed with new uses. By 1978 St. John's Pleasant Valley Hospital was developed slightly north of Las Posas Road (*Oxnard Press Courier* 1971a; NETRonline 1967, 1969 and 1978). In 1979 the Peter Rice Tract was subdivided leading to the development of a police station, medical offices, and commercial businesses (NETRonline 1989; Google Earth).

The Oxnard Union High School District developed a new high school on a portion of the Bell Ranch property which opened in 2015. Located slightly west of the project site, the new school was named "Rancho Campana," which translates to "Bell Ranch" in Spanish, in honor of the family who once owned the land (Leung 2013; Oxnard Union High School District 2017 and 2020). Records on file with the Ventura County Assessor and Recorder show in 2019 a 40.22-acre parcel was split into two parcels that included the 36.4-acre project site and a smaller 4.64-acre parcel that is now owned by the City of Camarillo.

Historic Evaluation

Based on information available at the time of this study, the project site appears to possess significant associations with the early agricultural history of Ventura County and may be presumed eligible for listing in the CRHR and as a Ventura County Landmark. The exact construction dates of the buildings on the ranch property were unable to be definitively determined due to in-person research constraints resulting from COVID-19 considerations. However, available information indicates the ranch was historically associated with two notable nineteenth century pioneering entities which were influential in Ventura County's agricultural history, Rice & Bell ranch and the Bard family's Berylwood Investment Company. Residence Nos. 1 and 2 appear to have been built circa 1920, around the time the Berylwood Investment Company assumed ownership of the ranch. Residence No. 5 appears to have been built earlier, but further research would be necessary to substantiate. It is unclear what if any extant buildings on the site are associated with the Rice & Bell period. However, the Berylwood Investment Company maintained a noteworthy presence in Ventura County's growth during and after this period, supported in part by the project site. Further, the buildings on the property are largely intact and representative of early twentieth century agricultural practices within Ventura County and embody the distinctive characteristics of this period of architectural history. For these reasons, the portion of the project site located at 2789 Somis Road appears to be eligible under CRHR Criteria 1 and 3, and Ventura County Landmark Criteria 1, 2, and 5. The original Bell Ranch has been continually subdivided and a number of buildings and structures have been removed and replaced; however, the ranch still retains multiple buildings from the early twentieth century and maintains its historic character such that it retains sufficient integrity to convey its significant associations.

Although the ranch property is associated with Peter Rice and Robert Bell, their association with the extant buildings cannot be definitively documented at this time. Further, while Thomas R. Bard and other members of the Bard family who founded and led the Berylwood Investment Company have are associated with the property, this association is tangential, and the subject property is not directly illustrative of any significance these individuals may have. For this reason, the portion of the

project site that contains the grouping of buildings at 2789 Somis Road does not appear to be eligible for state or local designation under CRHR Criterion 2 or Ventura County Landmark Criterion 3. Lastly, the CHRIS records search results and archaeological field survey do not indicate that any portion of the project site is eligible for state or local designation under CRHR Criterion 4 or Ventura County Landmark Criterion 4.

4.4.1.7 Regulatory Setting

Federal Regulations

National Register of Historic Places

Cultural resources are considered during federal undertakings chiefly under Section 106 of the National Historic Preservation Act of 1966 (as amended) through one of its implementing regulations, 36 Code of Federal Regulations (CFR) 800 (Protection of Historic Properties), as well as the National Environmental Policy Act. Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of the National Historic Preservation Act. Other federal laws include the Archaeological and Historic Preservation Act of 1974, the American Indian Religious Freedom Act of 1978, the Archaeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1989, among others.

Section 106 of the National Historic Preservation Act (16 United States Code 470f) requires federal agencies to take into account the effects of their undertakings on any district, site, building, structure, or object included in or eligible for inclusion in the NRHP, and to give the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings (36 CFR 800.1). Under Section 106, the significance of any adversely affected cultural resource is assessed and mitigation measures are proposed to reduce any impacts to an acceptable level. Significant cultural resources are those listed in or eligible for listing in the NRHP per the criteria listed below (36 CFR 60.4).

Certain properties are usually not considered for eligibility for the NRHP. These include ordinary cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or use for religious purposes, moved or reconstructed structures, properties primarily commemorative in nature, or properties that have become significant within the last 50 years. These types of properties can qualify if they are an integral part of a district that does meet the criteria, or if they fall within certain specific categories relating to architecture or association with historically significant people or events. The vast majority of archaeological sites that qualify for listing do so under Criterion D, Research Potential.

State Regulations

California Register of Historical Resources

The CRHR was created by Assembly Bill 2881, which was established in 1992. The CRHR is an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change (Public Resources Code, 5024.1(a)). The criteria for eligibility for the CRHR are consistent with the NRHP criteria but have been modified for state use in order to include a range of historical resources that better reflect the history of California (Public Resources Code, 5024.1(b)). Certain properties are

determined by the statute to be automatically included in the CRHR by operation of law, including California properties formally determined eligible for, or listed in, the NRHP.

The CRHR consists of properties that are listed automatically and those that must be nominated through an application and public hearing process. The CRHR automatically includes the following:

Criterion 1: Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage

Criterion 2: Is associated with the lives of persons important in our past

Criterion 3: Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

Criterion 4: Has yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting one or more of the above criteria, the CRHR requires sufficient time to have passed to allow a "scholarly perspective on the events or individuals associated with the resource." Fifty years is a general estimate of the time needed to understand the historical importance of a resource, according to the state Office of Historic Preservation. The CRHR also requires a resource to possess integrity, defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association." Archaeological resources can sometimes qualify as "historical resources" (CEQA Guidelines, Section 15064.5[c][1]).

According to CEQA, all buildings constructed over 50 years ago and that possess architectural or historical significance may be considered potential historic resources. Most resources must meet the 50-year threshold for historic significance, but resources less than 50 years in age may be eligible for listing on the CRHR if it can be demonstrated that sufficient time has passed to understand their historical importance.

If a project can be demonstrated to cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a], [b], and [c]).

PRC Section 21083.2(g) defines a *unique archaeological resource* as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

Criterion 1: Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information

Criterion 2: Has a special and particular quality such as being the oldest of its type or the best available example of its type

Criterion 3: Is directly associated with a scientifically recognized important prehistoric or historic event or person

The state administers two other programs: California Historical Landmarks and California Points of Historical Interest. California Historical Landmarks are buildings, sites, features, or events of statewide significance with anthropological, cultural, military, political, architectural, economic,

scientific or technical, religious, experimental, or other historical value. California Points of Historical Interest are buildings, sites, features, or events local (county or city) significance with anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other historical value.

Local Regulations

Ventura County Cultural Heritage Ordinance

Ventura County Ordinance No. 4225, known as the Cultural Heritage Ordinance, delineates the criteria utilized to assess the eligibility of a potential Cultural Heritage Site, and the manner by which Cultural Heritage Sites are designated. An improvement, natural feature or site may become a designated Cultural Heritage Site if it meets the following applicable criteria:

A. **Landmark** – Satisfy one of the following criteria:
   1. It exemplifies or reflects special elements of the County's social, aesthetic, engineering, architectural or natural history;
   2. It is associated with events that have made a significant contribution to the broad patterns of Ventura County or its cities, regional history or the cultural heritage of California or the United States;
   3. It is associated with the lives of persons important to Ventura County or its cities, California or national history;
   4. It has yielded, or has the potential to yield, information important to the prehistory or history of Ventura County or its cities, California or the nation.
   5. It embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of a master or possesses high artistic values;
   6. Integrity. Establish the authenticity of the resource's physical identity by evidence of lack of deterioration and significant survival of the characteristics that existed during its period of importance. This shall be evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling and association.

B. **Sites of Merit** – Satisfy the following criteria:
   1. Sites of historical, architectural, community or aesthetic merit which have not been designated as a landmark or point of interest, but which are deserving of special recognition; and
   2. County approved surveyed sites with a National Register status code of 5 or above.

C. **Points of Interest** – Satisfy any one the following criteria:
   1. That is the site of a building, structure or object that no longer exists, but was associated with historic events, important persons or embodied a distinctive character or architectural style; or
   2. That it has historical significance, but has been altered to the extent that the integrity of the original workmanship, materials or style has been substantially compromised; or
   3. That the site of a historic event which has no distinguishable characteristics other than that a historic event occurred at that site, and the site is not of sufficient historical significance to justify the establishment of a landmark.

D. **District** – Satisfy the following criteria:
   1. Possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.
   2. Has precisely mapped and defined exterior boundaries, which requires a description of what lies immediately on the edge of the district to allow rational exclusion of adjoining areas.
   3. Has at least one of the criteria for significance of Section 1365-5.a. 1-8
   4. Complies with the criteria for integrity contained in Section 1365-5.a.6.

In addition to meeting the criteria in Sec. 1365-5 et seq., all the following standards must be met before a site becomes a designated Cultural Heritage Site:

A. It shall have historic, aesthetic or special character or interest for the general public, and not be limited in interest to a special group of persons;
B. Its designation shall not require the expenditure by the County of Ventura of any amount of money not commensurate with the value of the object to be preserved; and
C. Its designation shall not infringe upon the rights of a private owner thereof to make any and all reasonable uses thereof which are not in conflict with the purposes of this Article.

Ventura County General Plan

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goal 1.6.1-1 and Policies 1.6.2-1 and 1.6.2-6 pertain to historic resources.

- **Goals**
  - **1.8.1-1.** Identify, inventory, preserve, and protect the paleontological and cultural resources of Ventura County (including archaeological, historical, and Native American resources) for their scientific, educational, and cultural value.
  - **1.8.1-1.** Enhance cooperation with cities, special districts, other appropriate organizations, and private landowners in acknowledging and preserving the County's paleontological and cultural resources.
- **Policies**
  - **1.8.2-1.** Discretionary developments shall be assessed for potential paleontological and cultural resource impacts, except when exempt from such requirements by CEQA. Such assessments shall be incorporated into a Countywide paleontological and cultural resource data base.
  - **1.8.2-2.** Discretionary development shall be designed or re-designed to avoid potential impacts to significant paleontological or cultural resources whenever possible. Unavoidable impacts, whenever possible, shall be reduced to a less than significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical or paleontological consultants, depending on the type of resource in question.
  - **1.8.2-3.** Mitigation of significant impacts on cultural or paleontological resources shall follow the Guidelines of the State Office of Historic Preservation, the State Native American

Heritage Commission, and shall be performed in consultation with professionals in their respective areas of expertise.

- **1.8.2-4.** Confidentiality regarding locations of archaeological sites throughout the County shall be maintained in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.
- **1.8.2-5.** During environmental review of discretionary development, the reviewing agency shall be responsible for identifying sites having potential archaeological, architectural or historical significance and this information shall be provided to the County Cultural Heritage Board for evaluation.
- **1.8.2-6.** The Building and Safety Division shall utilize the State Historic Building Code for preserving historic sites in the County.

4.4.2 Impact Analysis

4.4.2.1 Significance Thresholds

Per the Initial Study Assessment Guidelines (County 2011), impacts related to historical resources would be potentially significant if the proposed project would:

1. Demolish or materially alter in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources;
2. Demolish or materially alter in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code;
3. Demolish or materially alter in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA;
4. Demolish, relocate, or alter an historical resource such that the significance of the historical resource will be impaired [Public Resources Code, Sec. 5020(q)]; and/or
5. Be inconsistent with the applicable General Plan Goals and Policies for "Cultural Resources – Historic" in the County's Initial Study Assessment Guidelines.

According to the County's Initial Study Assessment Guidelines and Section 15064.5 of the CEQA Guidelines, a project with an effect that may cause a substantial adverse change in the mandatory significance, presumptive significance or discretionary significance of an historical resource is a project that may have a significant effect on the environment. Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historic resource would be materially impaired. If a historical resource is deemed not significant, the effects of the project on that resource shall be considered a less than significant effect on the environment.

4.4.2.2 Project Impacts and Mitigation Measures

Threshold 1:	Would the project demolish or materially alter in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources?
Threshold 2:	Would the project demolish or materially alter in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code?
Threshold 3:	Would the project demolish or materially alter in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA?
Threshold 4:	Would the project demolish, relocate, or alter an historical resource such that the significance of the historical resource will be impaired [Public Resources Code, Sec. 5020(q)]?

IMPACT CUL-1 THE PROJECT WOULD NOT DEMOLISH, RELOCATE, OR ALTER IN AN ADVERSE MANNER THE PHYSICAL CHARACTERISTICS OF HISTORICAL RESOURCES ON THE PROJECT SITE. IMPACTS TO HISTORICAL RESOURCES WOULD BE LESS THAN SIGNIFICANT.

As discussed in the Setting, available information suggests that the grouping of buildings at 2789 Somis Road is eligible for listing in the CRHR and as a Ventura County Landmark. This portion of the project site is therefore presumed to be a historical resource under CEQA.

The proposed project would not involve demolition or direct alteration of any of the buildings at 2789 Somis Road. The proposed continued agricultural use parcel would retain the existing residential and agricultural buildings and remain in agricultural production. In addition, the proposed housing complex would include a landscaped buffer to separate it from the existing buildings.

Under Section 15064.5(b) of the CEQA Guidelines, a significant impact to a historical resource would occur if the physical characteristics of the resource that convey its historical significance and justify its eligibility for inclusion in the CRHR. Although the project would result in the subdivision of the project site, the historical boundaries of the ranch at 2789 Somis Road were once much larger and the ranch has been continually subdivided in the post-World War II era. Further, the buildings and agricultural activity on this portion of the site would be retained. The proposed residential development would change aspects of the project site's surroundings; however, its setting has already largely changed since the historical period due to ongoing subdivision and new construction. The proposed development is consistent with these non-historical elements and would not further diminish the setting. Additionally, the proposed housing complex development would be further buffered and distinguished from the historic buildings through landscaping. Therefore, the project would result in a less than significant impact to historical resources under CEQA.

Mitigation Measures

No mitigation is required.

Threshold 5:	Would the project be inconsistent with the applicable General Plan Goals and Policies for "Cultural Resources – Historic" in the County's Initial Study Assessment Guidelines?

IMPACT CUL-2 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would be consistent with the County General Plan goals and policies listed previously under Regulatory Setting. The project would not preclude the County from implementing goals applicable to historic resources, including "identify[ing], inventory, preserv[ing], and protect[ing]…cultural resources of Ventura…for their scientific, educational, and cultural value" (Goal 1.8.1-1) and "enhance[ing] cooperation with cities, special districts, other appropriate organizations, and private landowners in acknowledging and preserving the County's…cultural resources" (Goal 1.8.1-2). With completion of the Cultural Resources Assessment (Appendix E), the project is in compliance with Policies 1.8.2-1 through 1.8.2-6.

With implementation of state and County regulations outlined above in the section, the project would be consistent with the General Plan goals and policies pertaining to historic resources. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

4.4.2.3 Cumulative Impacts

Impacts to historic and archaeological resources are generally site-specific. For cumulative projects listed in Table 3-1 that would result in significant impacts to historical resources, conditions and mitigation measures would be required through site-specific investigations and surveys as well as the assessment of potential impacts and prescription of appropriate mitigation. As with the project, other cumulative development that would result in potential impacts to historical resources would also be subject to applicable federal, state, and local regulations and ordinances for historical resources. Accordingly, as required under applicable laws and regulations, potential impacts associated with cumulative developments would be addressed on a case-by-case basis.

As described in Impact CUL-1, the project would not result in the loss of any significant identified historical resources. Therefore, the project would not contribute considerably to the cumulative loss of historical resources in the vicinity.

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4.5 Noise and Vibration

This section discusses the project's potential impacts relating to noise and vibration. It considers both the temporary impacts relating to construction activities and potential long-term impacts associated with project operation.

4.5.1 Setting

4.5.1.1 Noise Overview

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

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz (Hz) and less sensitive to frequencies around and below 100 Hz (Kinsler et al. 1999). Decibels are measured on a logarithmic scale, which quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as a doubling of traffic volume, would increase the noise level by 3 dB; similarly, dividing the energy in half would result in a decrease of 3 dB (Crocker 2007).

Human perception of noise has no simple correlation with sound energy; the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not "sound twice as loud" as one source. It is widely accepted the average healthy ear can barely perceive an increase (or decrease) of up to 3 dBA in noise levels (i.e., twice [or half] the sound energy); a change of 5 dBA is readily perceptible (8 times the sound energy); and an increase (or decrease) of 10 dBA sounds twice (or half) as loud (10.5 times the sound energy) (Crocker 2007).

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in sound level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of noise source (e.g., point or line), the path the sound will travel, site conditions, and obstructions. Noise levels from a point source (e.g., construction, industrial machinery, ventilation units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (FHWA 2011). Structures can substantially reduce occupants' exposure to noise as well. The FHWA's guidelines indicate modern building construction generally provides an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows.

The time of day when noise occurs and the duration of the noise are also important. Most noise lasting for more than a few seconds is variable in its intensity. Consequently, a variety of noise

descriptors have been developed. One of the most frequently used noise metrics is the equivalent noise level (L_{eq}), which considers both duration and sound power level. L_{eq} is defined as the single steady A-weighted level equivalent to the same amount of energy contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, L_{eq} is summed over a one-hour period (1H). L_{max} is the highest root mean squared (RMS) sound pressure level within the sampling period, and L_{min} is the lowest RMS sound pressure level within the measuring period (Crocker 2007). Normal conversational levels are in the 60 to 65 dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise occurring at night tends to be more disturbing than noise occurring during the day. Community noise is usually measured using Day-Night Average Level (L_{dn}), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.). Community noise can also be measured using Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013). Noise levels described by L_{dn} and CNEL usually differ by about 1 dBA. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 CNEL, while areas near arterial streets are in the 50 to 60+ CNEL range.

4.5.1.2 Vibration Overview

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent structures. The number of cycles per second of oscillation makes up the vibration frequency, described in terms of Hz. The frequency of a vibrating object describes how rapidly it oscillates. The normal frequency range of most groundborne vibration that can be felt by the human body starts from a low frequency of less than 1 Hz and goes to a high of about 200 Hz (Crocker 2007).

While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hz), or when foundations or utilities, such as sewer and water pipes, physically connect the structure and the vibration source (FTA 2018). Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses.

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. High-frequency vibrations diminish much more rapidly than low frequencies, so low frequencies tend to dominate the spectrum at large distances from the source. Discontinuities in the soil strata can also cause diffractions or channeling effects that affect the propagation of vibration over long distances (Caltrans 2020). When a building is impacted by vibration, a ground-to-foundation coupling loss will usually reduce the overall vibration level. However, under rare circumstances, the ground-to-foundation coupling may actually amplify the vibration level due to structural resonances of the floors and walls.

Vibration amplitudes are usually expressed in peak particle velocity (PPV) or RMS vibration velocity. The PPV and RMS velocity are normally described in inches per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings (Caltrans 2020).

4.5.1.3 Ambient Noise Levels

The project site is located in an urban area with the primary sources of noise in the project vicinity being vehicles (e.g., automobiles, buses, and trucks) along Somis Road (Highway 34) and Las Posas Road, as well as agricultural operations and noise generated from Rancho Campana High School. Motor vehicle noise is characterized by a high number of individual events, which often create sustained noise levels. Ambient noise levels would be expected to be highest during the daytime and rush hour unless congestion slows speeds substantially. According to the County of Ventura General Plan Hazards Appendix, noise levels generated by traffic on Highway 34 at the project site are between 50 and 55 dBA CNEL (County of Ventura 2013b).

The County of Ventura General Plan Noise Element defines noise-sensitive receivers as residences, schools, hospitals, nursing homes, churches, and libraries (County of Ventura 2010). The closest noise-sensitive receivers include Rancho Campana High School to the west of the Project site at a distance of approximately 350 feet to the nearest structure, the Church of Jesus Christ of Latter-day Saints to the south of the project at a distance of approximately 500 feet, single-family residences located approximately 460 feet southeast of the Project site, and the Camarillo Public Library approximately 950 feet to the southwest of the Project site.

The airport nearest to the project site, the Camarillo Airport, is located approximately 4.1 miles to the southwest. The project site is not located within the noise contours of the airport (Airport Comprehensive Land Use Plan for Ventura County 2000).

4.5.1.4 Regulatory Setting

Federal Regulations

Federal Transit Administration Ground borne Vibration Guidelines

Sections 5 and 6 of the Transit Noise and Vibration Impact Assessment Manual, adopted by the FTA in September 2018, addresses the federal guidelines used to evaluate a project for potential vibration impacts. The vibration impact analysis is a multi-step process used for determining vibration analysis level, determining vibration impact criteria, and evaluating vibration impact. FTA guidelines state that the threshold of perception for humans is approximately 65 vibration decibels (VdB). A vibration level of 85 VdB can result in strong annoyance, and a vibration level of 100 VdB is the threshold of potential damage (FTA 2018). Construction activity can result in varying degrees of ground vibration depending on the equipment and methods employed, and older and more fragile buildings must receive special consideration. These guidelines are advisory and should be used to assess the impacts of ground borne vibrations created from transit and construction sources.

State Regulations

California Building Code

CCR Title 24, Building Standards Administrative Code, Part 2, and the California Building Code codify the state noise insulation standards. These noise standards apply to new construction in California to control interior noise levels as they are affected by exterior noise sources. The regulations specify that interior noise levels for residential and school land uses should not exceed 45 CNEL.

California General Plan Guidelines

The California General Plan Guidelines, published by the Governor's Office of Planning and Research, indicate acceptable, specific land use types in areas with specific noise exposure. The guidelines also offer adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. These guidelines are advisory, and local jurisdictions, including the County of Ventura, have the responsibility to set specific noise standards based on local conditions.

Local Regulations

County of Ventura General Plan

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goal 2.16.1 and Policies 2.16.2-1 through 2.16.2-3 pertain to noise and vibration.

- **Goals**
  - **2.16.1.** To protect the health, safety, and general welfare of County residents by elimination or avoidance of adverse noise impacts on existing and future noise sensitive uses.
- **Policies**
  - **2.16.2-1.** All discretionary development shall be reviewed for noise compatibility with surrounding uses. Noise compatibility shall be determined from a consistent set of criteria based on the standards listed below. An acoustical analysis by a qualified acoustical engineer shall be required of discretionary developments involving noise exposure or noise generation in excess of the established standards. The analysis shall provide documentation of existing and projected noise levels at on-site and off-site receptors, and shall recommend noise control measures for mitigating adverse impacts.
  - **2.16.2-2.** Discretionary development which would be impacted by noise, or generate project related noise which cannot be reduced to meet the standards prescribed in Policy 2.16.2-1, shall be prohibited. This policy does not apply to noise generated during the construction phase of a project.
  - **2.16.2-3.** The priorities for noise control shall be as follows:
    (1) Reduction of noise emissions at the source.
    (2) Attenuation of sound transmission along its path, using barriers, landforms modification, dense plantings, and the like.
    (3) Rejection of noise at the reception point via noise control building construction, hearing protection or other means.

The County of Ventura General Plan states noise-generating facilities constructed near noise sensitive receivers shall not generate outdoor noise levels at nearby sensitive receivers exceeding the following standards, as measured at the exterior wall of the building:

- L_{eq}[1H] of 55 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.
- L_{eq}[1H] of 50 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.
- L_{eq}[1H] of 45 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.

This analysis utilizes these standards to evaluate the significance of the project's operational noise impacts.

The General Plan also states that noise sensitive uses proposed to be located near highways, truck routes, heavy industrial activities and other relatively continuous noise sources shall incorporate noise control measures so that:

- Indoor noise levels in habitable rooms do not exceed 45 CNEL.
- Outdoor noise levels do not exceed 60 CNEL or Leq[1H] of 65 dBA during any hour.

4.5.2 Impact Analysis

4.5.2.1 Significance Thresholds

Methodology

Construction Noise

Construction noise was estimated using the FHWA Roadway Construction Noise Model (RCNM) (FHWA 2006). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Using RCNM, construction noise levels were estimated at noise sensitive receivers near the project site. RCNM provides reference noise levels for standard construction equipment, with an attenuation of 6 dBA per doubling of distance for stationary equipment.

Variation in power imposes additional complexity in characterizing the noise source level from construction equipment. Power variation is accounted for by describing the noise at a reference distance from the equipment operating at full power and adjusting it based on the duty cycle of the activity to determine the L_{eq} of the operation (FHWA 2018). Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase. Each phase also has its own noise characteristics; some will have higher continuous noise levels than others, and some have high-impact noise levels.

Construction noise would typically be higher during the heavier periods of initial construction (i.e., site preparation and grading work) and would be lower during the later construction phases (i.e., interior building construction). Typical heavy construction equipment during project grading and site preparation would include dozers and backhoes. It is assumed that diesel engines would power all construction equipment. Construction equipment would not all operate at the same time or location. In addition, construction equipment would not be in constant use during the 8-hour

operating day. A dozer and backhoe were analyzed together for construction noise impacts due to their likelihood of being used in conjunction with one another and therefore a conservative scenario for the greatest noise generation during construction. Using RCNM to estimate noise associated with a dozer and backhoe, noise levels are calculated to be 79.1 dBA L_{eq} (1-hour) at 50 feet (RCNM calculations are included in Appendix F).

Groundborne Vibration

Operation of the proposed project would not include any substantial vibration sources associated with operation. Therefore, construction activities have the greatest potential to generate ground-borne vibration affecting nearby receivers. The greatest vibratory source during construction within the project vicinity would be from a dozer. Neither blasting nor pile driving would be required for construction of the proposed project. Construction vibration estimates are based on vibration levels reported by Caltrans and the FTA (Caltrans 2020, FTA 2018). Table 4.5-1 shows typical vibration levels for various pieces of construction equipment used in the assessment of construction vibration (FTA 2018).

Table 4.5-1 Vibration Levels Measured during Construction Activities

Equipment	PPV at 25 ft. (in/sec)
Large Bulldozer	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer	0.003

Source: FTA 2018

Vibration limits used in this analysis to determine a potential impact to local land uses from construction activities, such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation, are based on information contained in the FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018), as identified in Table 4.5-2.

Table 4.5-2 FTA Construction Vibration Damage Criteria

Building/Structural Category	Limiting Velocity (PPV in./sec.)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Building extremely susceptible to vibration damage.	0.12

Source: FTA 2018

Operational Noise Sources

Noise sources associated with operation of the proposed project would consist of low speed on-site vehicular noise, landscaping maintenance, general conversations, and mechanical equipment (e.g., heating, ventilation, and air conditioning [HVAC] units and CWWTF equipment). Due to the distances and low noise levels associated with general site activities, on-site traffic, and landscape maintenance, these sources are not considered substantial and are not analyzed further.

On site-noise sources were modeled with algorithms from the SoundPLAN three-dimensional noise model (SoundPLAN), Version 8.2. Propagation of modeled stationary noise sources was based on ISO Standard 9613-2, "Attenuation of Sound during Propagation Outdoors, Part 2: General Method of Calculation." The assessment methodology assumes that all receptors would be downwind of stationary sources. This is a worst-case assumption for total noise impacts since, in reality, only some receivers would be downwind at any one time.

Each HVAC unit would contain a screened split system HVAC unit located on the ground. In the modeling, the units were placed in a likely location (i.e., on the rooftop of each unit). The unit used in this analysis is a typical to larger-sized residential condenser, a Carrier 38HDR060 split system condenser (see Appendix F for specification sheets). The manufacturer's noise data is provided below in Table 4.5-3. All HVAC units were modeled as being three feet above roof elevation. For a conservative scenario, the units were assumed to operate at 100 percent of an hour for 24 hours and were not modeled with screening.

Table 4.5-3 HVAC Noise Levels

Noise Levels in dB[1] Measured at Octave Frequencies							Overall Noise Level in A-weighted Scale (dBA)[1]
125 Hz	250 Hz	500 Hz	1 KHz	2 KHz	4 KHz	8 KHz	
63.0	61.5	64.0	66.5	66.0	64.5	55.5	72.0

[1] Noise Levels for a Carrier 38HDR060 split system condenser (see Appendix F for specification sheets).

Hz = Hertz; KHz = kilohertz

The stationary noise impacts associated with the proposed project's CWWTF would include pump and blower equipment and a backup emergency generator. Noise would occur from the pump and blower equipment operating during the normal treatment process. The lift station pump and motor sets would be submerged and therefore would result in imperceptible noise. The manufacturers specification sheet for the anticipated blower associated with the project reports a noise level of 79.6 dB at one meter (see Appendix F for specification sheets). For a potential backup emergency generator, a Caterpillar 200 kW (60 Hz) diesel generator was modeled based upon Rincon experience with similar facilities and project applicant input. This generator would have a sound power level of 96 dBA. See Appendix F for backup generator specifications. The CWWTF will be enclosed by an approximate 8-foot masonry block wall. For modeling purposes, it was assumed that the generator and blower would be operating simultaneously.

TRAFFIC NOISE

Noise levels affecting the proposed project site would be primarily influenced by traffic from State Route 34. Future noise levels affecting the compatibility of the project site were estimated using the FHWA's Traffic Noise Model (TNM) traffic noise-reference levels and SoundPLAN. Traffic noise-model inputs to SoundPLAN include the three- dimensional coordinates of the roadways, noise receivers, and topographic features or planned barriers that would affect noise propagation; vehicle volumes and speeds, by type of vehicle; and absorption factors.

Traffic volumes used for the noise analysis are shown in Table 4.5-4. The traffic counts used average daily trips (ADT) information provided in the project's Traffic Study (Associated Transportation Engineers 2020).

Table 4.5-4 Existing and Future Traffic Volumes

Roadway	Traffic Counts (Average Daily Trips)			
	Existing	Existing + Project	Cumulative	Cumulative + Project
State Route 34, south of Los Angeles Avenue	14,500	15,870	15,200	16,570
State Route 118, east of Somis Road	19,500	20,159	21,450	22,109
State Route 118, west of Somis Road	12,200	12,911	13,400	14,111
Balcom Canyon Road, north of Los Angeles Avenue	3,000	3,132	3,300	3,432
Broadway, west of Grimes Canyon Road	2,300	2,432	2,500	2,632
Central Avenue, west of U.S. Highway 101	17,000	17,132	18,700	18,832
Grimes Canyon Road, north of Los Angeles Avenue	3,500	3,895	3,900	4,295
Las Posas Road, south of Pleasant Valley Road	10,100	10,232	11,100	11,232
Lewis Road, south of Pleasant Valley Road	19,700	19,832	21,700	21,832
Pleasant Valley Road, west of Las Posas Road	16,200	16,332	17,800	17,932
Rose Avenue, south of Los Angeles Avenue	9,100	9,232	10,000	10,132

Source: Associated Transportation Engineers 2020

To determine the vehicle classification mix for modeling, the vehicle mix from Caltrans traffic counts were used, which observed 86 percent automobiles, 5 percent medium trucks (2-axle), and 9 percent heavy trucks (3-axle+) (Caltrans 2019). Peak hour traffic was assumed to be approximately 10 percent of the roadway's total ADT in the model as 10 percent peak hour traffic noise level is considered equivalent to CNEL.

Exterior traffic noise levels at the residential building facades of potential first, second, and third floors were calculated, with the first-floor receivers placed at 5 feet above ground level and second floor and third floor receivers placed at approximately 15 feet and 25 feet above ground level, respectively.

Significance Thresholds

Per the Initial Study Assessment Guidelines (County 2011), impacts related to noise and vibration would be potentially significant if the proposed project would:

1. Either individually or when combined with other recently approved, pending, and probable future projects, produce noise in excess of the standards for noise in the Ventura County General Plan Goals, Policies, and Programs (Section 2.16 of the Ventura County General Plan);
2. Either individually or when combined with other recently approved, pending, and probable future projects, include construction activities, involving blasting, pile-driving, vibratory

compaction, demolition, and drilling or excavation which exceed the threshold criteria provided in the Transit Noise and Vibration Impact Assessment;

3. Result in a transit use located within any of the critical distances of the vibration-sensitive uses listed in Table 1, *Screening Distances for Vibration Assessment*, in Section 21 of the Initial Study Assessment Guidelines;
4. Generate new heavy vehicle (e.g., semi-truck or bus) trips on uneven roadways located within proximity to sensitive uses that have the potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria of the Transit Use Thresholds for rubber-tire heavy vehicle uses (Table 1, *Screening Distances for Vibration Assessment*, in Section 21 of the Initial Study Assessment Guidelines);
5. Involve blasting, pile-driving, vibratory compaction, demolition, drilling, excavation, or other similar types of vibration-generating activities which have the potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria provided in the Section 12.2 of the Transit Noise and Vibration Impact Assessment (Hanson et al. 2006); and/or
6. Be inconsistent with the applicable General Plan Goals and Policies for "Noise and Vibration" of the County's Initial Study Assessment Guidelines.

Any project that produces noise in excess of the standards for noise in the Ventura County General Plan Goals, Policies, and Programs has the potential to cause a significant noise impact. Specifically, noise associated with the project would potentially significant if it would exceed the following criteria:

Construction

Per Policy 2 in Section 2.16.2 of the County General Plan, the Noise policies do not apply to noise generated during the construction phase of a project. The County's Noise Ordinance (Ordinance 4124) is intended to protect residential communities from loud or raucous nighttime noise. No person shall create within any residential zone of the County any loud or raucous noise that is audible to the human ear during the hours of 9:00 p.m. to 7:00 a.m. of the following day, at a distance of 50 feet from the property line of the noise source or 50 feet from any such noise source if the noise source is in a public right-of-way.

Permanent

Non-construction-related noise significance thresholds are presented in Section 2.16.2 of the County General Plan (County 2019), Transit Noise and Vibration Impact Assessment (Hanson et al. 2006), Initial Study Assessment Guidelines (County 2011). Operational noise would be significant if the noise levels exceed:

- 55 dBA L_{eq} (1H) or ambient noise level plus 3 dBA, whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.
- 50 dBA L_{eq} (1H) or ambient noise level plus 3 dBA, whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.
- 45 dBA L_{eq} (1H) or ambient noise level plus 3 dBA, whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.

For project residences, indoor noise levels in habitable rooms would be significant if they exceed 45 CNEL and outdoor noise levels at the exterior use areas would be significant if they exceed 60 CNEL or of 65 dBA L_{eq} (1H).

For traffic-related noise, impacts would be considered significant if project-generated traffic would result in exposure of sensitive receptors to an unacceptable increase in noise levels. For purposes of this analysis, a significant impact would occur if project-related traffic increases the ambient noise environment of noise-sensitive locations by 3 dBA or more if the locations are subject to noise levels in excess of 60 CNEL for exterior areas or 45 CNEL for interior noise levels, or by 5 dBA or more if the locations are not subject to noise levels in excess of the aforementioned standards.

Any project that either individually or when combined with other recently approved, pending, and probable future projects, includes construction activities involving blasting, pile-driving, vibratory compaction, demolition, and drilling or excavation which exceed the threshold criteria provided in Table 4.5-2 is considered to have a potentially significant impact.

4.5.2.2 Project Impacts and Mitigation Measures

Threshold 1:	Would the project, either individually or when combined with other recently approved, pending, and probable future projects, produce noise in excess of the standards for noise in the Ventura County General Plan Goals, Policies, and Programs?
Threshold 2:	Would the project, either individually or when combined with other recently approved, pending, and probable future projects, include construction activities, involving blasting, pile-driving, vibratory compaction, demolition, and drilling or excavation which exceed the threshold criteria provided in the Transit Noise and Vibration Impact Assessment?

IMPACT N-1 CONSTRUCTION NOISE AND STATIONARY NOISE AND OFF-SITE TRAFFIC NOISE FROM OPERATION OF THE PROJECT WOULD NOT EXCEED VENTURA COUNTY STANDARDS AT THE NEARBY NOISE-SENSITIVE RECEPTORS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction

The Ventura County Construction Noise Threshold and Control Plan defines noise-sensitive receivers according to their typical sensitive time period. Residential uses are considered sensitive during the evening and nighttime hours (7:00 p.m. to 7:00 a.m.), while schools, churches, and libraries are considered sensitive during the daytime hours when in use (7:00 a.m. to 7:00 p.m.). Project construction would only occur during the daytime hours; therefore, no noise-sensitive residences would be exposed to construction noise. Over the course of a typical construction day, construction equipment would be located as close as 350 feet to the nearest daytime noise-sensitive receiver structure at the Rancho Campana High School to the west. Construction equipment would be located as close as 500 feet and 950 feet to the Church of Jesus Christ of Latter-day Saints to the south and to the Camarillo Public Library to the southwest, respectively. In addition, construction of the eastern driveway would occur as close as 400 feet from the single-family residences to the south.

As required by Section 2.16.2 of the County General Plan (County 2019), the County's Noise Ordinance (Ordinance 4124), and the County's Transit Noise and Vibration Impact Assessment Guidelines (Hanson et al. 2006), project construction would be limited to the daytime hours of 7:00

a.m. to 7:00 p.m. to ensure that noise impacts at nearby noise-sensitive receptors during project construction would be less than significant.

Operation

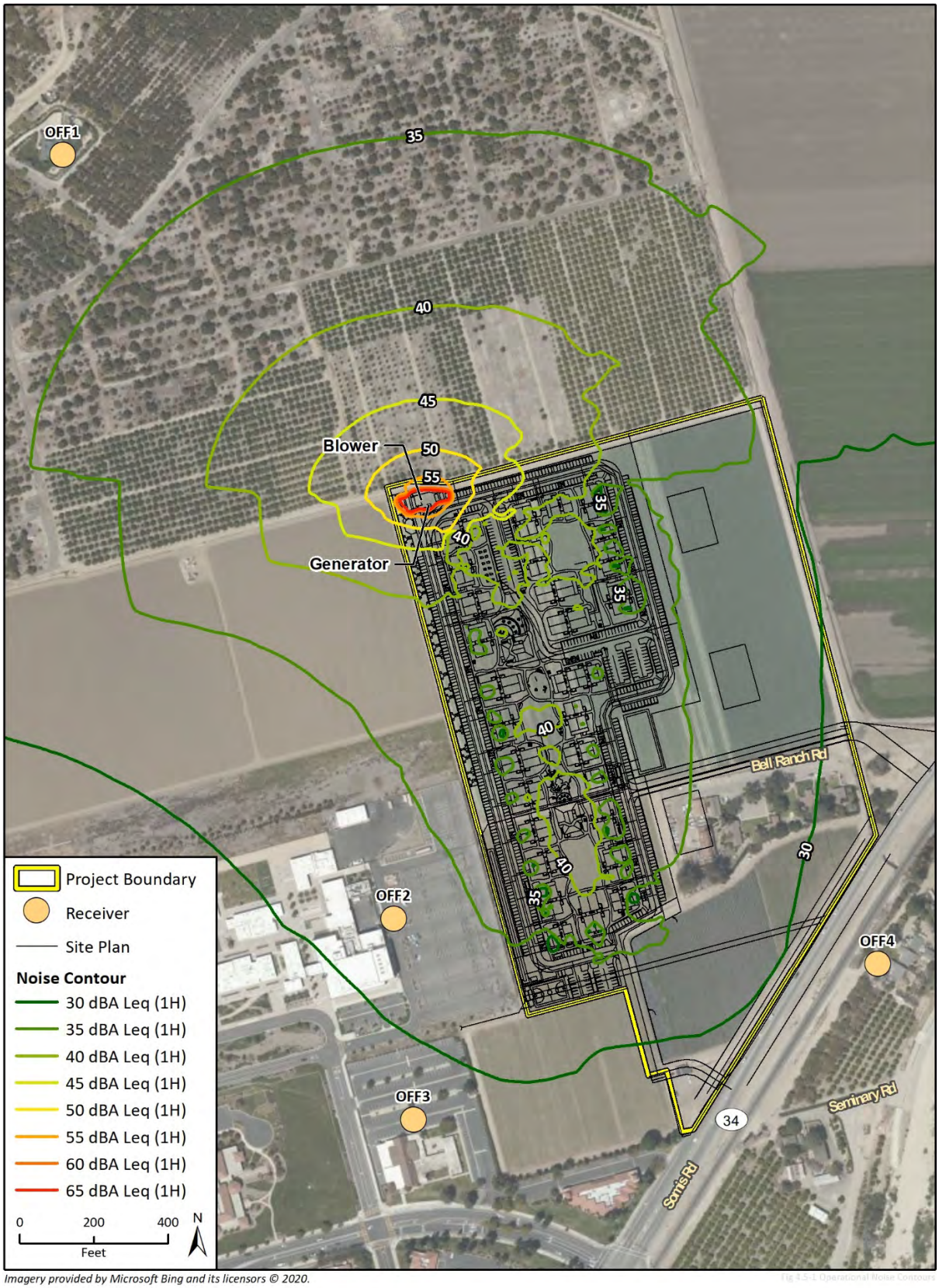
The proposed residences would be a new source of noise sources that may be audible at nearby properties, which include single-family residences, Rancho Campana High School, and the Church of Jesus Christ of Latter-day Saints. These receivers may periodically be subject to noise from stationary noise from HVAC, the emergency generator and blower of the lift station, and increased traffic noise from project vehicles. Noise levels at adjacent properties are shown in Table 4.5-5 and displayed in Figure 4.5-1 as receivers OFF1 through OFF4. As shown in Table 4.5-5, noise levels would not exceed County noise limits from stationary sources. Operational noise contours are also shown in Figure 4.5-1. Noise levels from project operation would result in less than significant impacts.

Table 4.5-5 Operational Noise Levels at Off-site Receivers

		dBA L_{eq} (1H)			
Receiver	**Description**	**HVAC**	**Lift Station**	**Combined**	**Exceed Threshold?[1]**
OFF1	Single-family Residence	20	32	33	No
OFF2	High School	31	26	32	No
OFF3	Church	27	22	28	No
OFF4	Single-family Residence	27	11	27	No

[1] The applicable noise threshold is: L_{eq}[1H] of 55 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.; L_{eq}[1H] of 50 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.; and L_{eq}[1H] of 45 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.

Figure 4.5-1 Off-site Receivers and Operational Noise Contours



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Off-site Traffic Noise

The project would generate new vehicle trips that would increase noise levels on nearby roadways. These trips would occur primarily on Scott Road. Project-generated traffic noise increases are shown in Table 4.5-6. As shown in the tables, traffic noise increases would reach as high as approximately 1 dBA, which would not exceed the 3 dBA criteria for off-site traffic noise impacts. Impacts would be less than significant.

Table 4.5-6 Off-site Traffic Noise Increases

	Noise Increase (dBA L_{eq})					
Roadway/Segment	Existing	Existing + Project	Increase	Cumulative	Cumulative + Project	Increase
State Route 34, south of Los Angeles Avenue	70	71	1	70	71	1
State Route 118, east of Somis Road	73	73	<1	74	74	<1
State Route 118, west of Somis Road	71	71	<1	72	72	<1
Balcom Canyon Road, north of Los Angeles Avenue	64	65	1	65	65	<1
Broadway, west of Grimes Canyon Road	63	64	1	64	64	<1
Central Avenue, west of U.S. Highway 101	71	71	<1	72	72	<1
Grimes Canyon Road, north of Los Angeles Avenue	66	66	<1	66	67	1
Las Posas Road, south of Pleasant Valley Road	71	71	<1	72	72	<1
Lewis Road, south of Pleasant Valley Road	73	73	<1	74	74	<1
Pleasant Valley Road, west of Las Posas Road	73	73	<1	74	74	<1
Rose Avenue, south of Los Angeles Avenue	71	71	<1	71	71	<1

Land Use Compatibility

Following the methodology and reference noise levels discussed under Methodology, noise levels at the project's apartments and outdoor areas were modeled. Building façade noise levels were modeled at ground-level and at the potential 2nd and 3rd floors of the residences, as shown in Table 4.5-7 as Receivers ON1 through ON26, and shared exterior use areas are shown as ON27 through ON31. Receiver locations and roadway noise contours are shown on Figure 4.5-2. As shown in Table 4.5-7, exterior noise levels from traffic noise at the potential outdoor areas of each residence and the project's shared outdoor areas would not exceed 60 CNEL. Therefore, noise levels at exterior areas of project residences would not exceed the County's 60 CNEL exterior noise standard for residences and would not conflict with the County General Plan.

Standard construction techniques for wood-frame construction buildings required under the California Building Code typically achieve a minimum 25-dBA reduction from exterior sources at

interior locations when the windows are in a closed position. Therefore, if building façade noise levels exceeded 70 CNEL for the residences, interior noise levels for the project would potentially exceed the County's interior noise standard of 45 CNEL.

As shown in Table 4.5-7, building façade noise levels do not exceed 70 CNEL at the proposed residences. Therefore, interior noise levels would not exceed 45 CNEL, and the project would be consistent with the interior noise level standards of the County General Plan.

Figure 4.5-2 On-site Receivers and Roadway Noise Contours

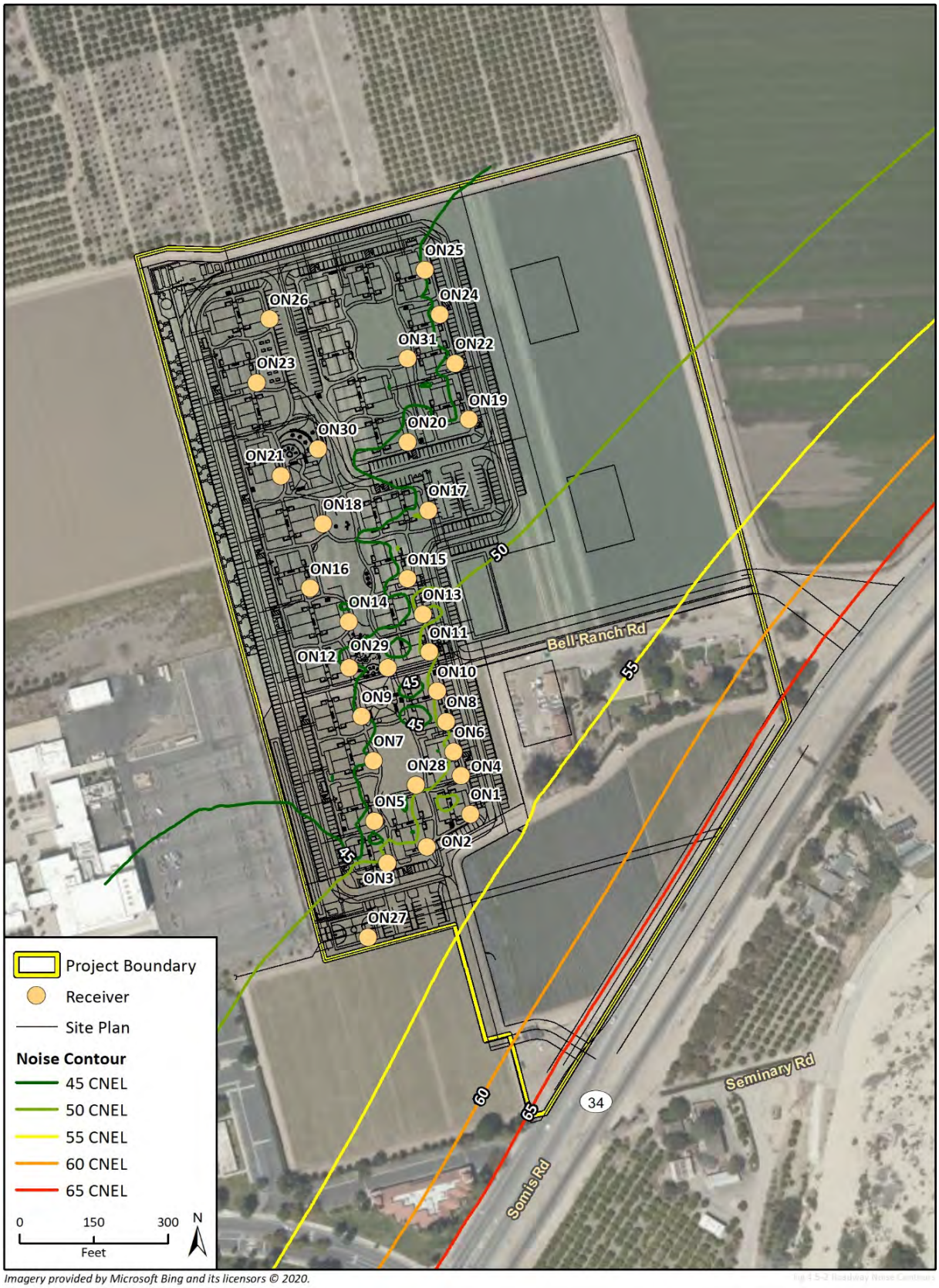

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Table 4.5-7 Traffic Noise Levels

Receiver	Description	Noise Level (CNEL)			Exceed Exterior Threshold?[1]	Exceed Interior Threshold?[1,2]
		Ground Level/ 1st Floor	2nd Floor	3rd Floor		
ON1	Project Residence	55	58	60	No	No
ON2	Project Residence	54	57	59	No	No
ON3	Project Residence	52	56	58	No	No
ON4	Project Residence	52	56	58	No	No
ON5	Project Residence	47	50	52	No	No
ON6	Project Residence	53	56	58	No	No
ON7	Project Residence	47	51	53	No	No
ON8	Project Residence	52	55	57	No	No
ON9	Project Residence	45	48	50	No	No
ON10	Project Residence	51	55	57	No	No
ON11	Project Residence	50	54	56	No	No
ON12	Project Residence	45	47	50	No	No
ON13	Project Residence	50	53	55	No	No
ON14	Project Residence	44	46	48	No	No
ON15	Project Residence	49	52	55	No	No
ON16	Project Residence	43	45	47	No	No
ON17	Project Residence	49	52	54	No	No
ON18	Project Residence	44	46	48	No	No
ON19	Project Residence	48	51	53	No	No
ON20	Project Residence	47	50	52	No	No
ON21	Project Residence	43	45	47	No	No
ON22	Project Residence	47	50	52	No	No
ON23	Project Residence	38	39	40	No	No
ON24	Project Residence	47	50	51	No	No
ON25	Project Residence	46	49	51	No	No
ON26	Project Residence	38	37	39	No	No
ON27	Exterior Use Area	53	N/A	N/A	No	N/A
ON28	Exterior Use Area	48	N/A	N/A	No	N/A
ON29	Exterior Use Area	46	N/A	N/A	No	N/A
ON30	Exterior Use Area	43	N/A	N/A	No	N/A
ON31	Exterior Use Area	43	N/A	N/A	No	N/A

[1] The Ventura County General Plan states the following limits for new noise sensitive land uses: Indoor noise levels in habitable rooms shall not exceed 45 CNEL; outdoor noise levels shall not exceed 60 CNEL.

[2] Standard construction techniques for wood-frame construction buildings required under the California Building Code typically achieve a minimum 25-dBA reduction from exterior sources at interior locations when the windows are in a closed position; therefore, a 25 dBA reduction was assumed for noise levels to compare to the interior noise standard of 45 CNEL.

Mitigation Measures

No mitigation is required.

Threshold 3:	Would the project result in a transit use located within any of the critical distances of the vibration-sensitive uses listed in Table 1, *Screening Distances for Vibration Assessment*, in Section 21 of the Initial Study Assessment Guidelines?
Threshold 4:	Would the project generate new heavy vehicle (e.g., semi-truck or bus) trips on uneven roadways located within proximity to sensitive uses that have the potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria of the Transit Use Thresholds for rubber-tire heavy vehicle uses (Table 1, Screening Distances for Vibration Assessment, in Section 21 of the Initial Study Assessment Guidelines)?
Threshold 5:	Would the project involve blasting, pile-driving, vibratory compaction, demolition, drilling, excavation, or other similar types of vibration-generating activities which have the potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria provided in the Section 12.2 of the Transit Noise and Vibration Impact Assessment (Hanson et al. 2006)?

IMPACT N-2 PROJECT-RELATED VIBRATION WOULD NOT RESULT IN EXCESSIVE GROUND-BORNE VIBRATION OR NOISE. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction activities known to generate excessive ground-borne vibration, such as pile driving, would not be conducted by the project. The greatest anticipated source of vibration during general project construction activities would be from a dozer, which may be used within 350 feet of the nearest off-site structures (Rancho Campana High School) to when accounting for setbacks. A dozer would create approximately 0.089 in/sec PPV at a distance of 25 feet (Caltrans 2020). This would equal a vibration level of 0.0049 in/sec PPV at a distance of 350 feet.[5] This would be lower than is the strictest FTA construction vibration damage criterion of 0.12 in/sec PPV for buildings extremely susceptible to vibration damage. Therefore, temporary impacts associated with the dozer (and other potential equipment) would be less than significant.

Operation of the project would not include any substantial vibration sources. Therefore, operational vibration impacts would be less than significant.

Mitigation Measures

No mitigation is required.

[5] $PPV_{Equipment} = PPV_{Ref}(25/D)^n$ (in/sec), PPV_{Ref} = reference PPV at 25 feet, D = distance ,and n = 1.1

Threshold 6:	Would the project be inconsistent with the applicable General Plan Goals and Policies for "Noise and Vibration" of the County's Initial Study Assessment Guidelines?

IMPACT N-3 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would be consistent with the County General Plan goals and policies listed previously under Regulatory Setting The project's consistency is analyzed in detail in Section 4.10, *Land Use and Planning*. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

4.5.2.3 Cumulative Impacts

Construction noise and vibration are localized and rapidly attenuate within an urban environment. Although some of the cumulative projects listed in Table 3-1 may be under construction at the same time as the proposed project, these projects are not located in close enough proximity to the project site such that noise and vibration from construction activities would impact the same sensitive receivers and structures. Therefore, no cumulative construction noise and vibration impacts would occur.

Some of the cumulative projects listed in Table 3-1 would include similar operational noise sources as the proposed project (e.g., parking activities, HVAC equipment, and outdoor use areas). Similar to construction noise and vibration, operational noise from these sources is localized and rapidly attenuates within an urbanized setting due to the effects of intervening structures and topography that block the line of sight and other noise sources closer to receivers that obscure project-related noise. Given the distance of the cumulative projects from the project site, these projects are not located in close enough proximity to the project site such that operational noise would impact the same sensitive receivers. Therefore, no cumulative operational noise impacts would occur.

4.6 Public Health

This section analyzes the potential for the proposed project to cause significant impacts to human health related issues such as, but not limited to, vectors, bioaerosols, and other pathogens or environmental factors that may pose a substantial present or potential hazard to public health. The primary human health issues of the project would be related to the community wastewater treatment facility (CWWTF) from on-site treatment and storage of project wastewater, recycled water, and activated sludge. This section also addresses long-term regulatory requirements associated with the distribution and storage of Title 22 Recycled Water and the disposal of activated sludge. This section relies in part on information from the Preliminary On-Site Wastewater Treatment System Design Report by WREA (Appendix B) and the Seepage Pit Performance Test prepared by Earth Systems Pacific (Appendix G). Impacts related to biosolids generated at the CWWTF are discussed in Section 4.8, *Waste Treatment and Disposal Facilities – Solid Waste Facilities.*

4.6.1 Setting

4.6.1.1 Onsite Wastewater Treatment Systems

The proposed CWWTF is classified as an Onsite Wastewater Treatment System (OWTS), or an "alternate private sewage disposal system" as defined by the County's Building Code, Article 6, Amendments to the California Plumbing Code.

"Recycled water" refers to water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource (State Water Resources Control Board [SWRCB] 2018). Uniform Statewide Recycling Criteria (California Code of Regulations [CCR], Title 22, Division 4, Chapter 3) contains requirements for recycled water quality and wastewater treatment requirements for the various types of allowed uses.

The allowable use of recycled water is based on the level of recycled water treatment. "Non-potable recycled water" refers to recycled water that is treated for non-potable use pursuant to the uniform statewide recycling criteria in CCR Title 22. Non-potable recycled water uses include, but are not limited to, irrigation, industrial or commercial cooling, supply for recreational impoundment, toilet flushing, and dust control. For non-potable reuse applications, there are four types of recycled water based on levels of treatment: non-disinfected secondary, disinfected secondary, and disinfected tertiary. Non-disinfected secondary recycled water is water with the lowest level of treatment, whereas disinfected tertiary recycled water goes through higher levels of treatment, sufficient for applications with more public exposure (SWRCB 2018).

The CWWTF product water would be classified as "disinfected tertiary recycled water" meeting Los Angeles Regional Water Quality Control Board (RWQCB) water quality waste discharge requirements (WDR) and water reclamation requirements (WRR).

"Activated sludge treatment" refers to a wastewater treatment process in which predominantly biodegradable pollutants in wastewater are absorbed by a suspended mass of living aerobic organisms called "activated sludge," according to CCR Title 23, Division 3, Chapter 26.

"Seepage pits" are underground drilled pits filled with drain rock, through which wastewater effluent is distributed via a central perforated pipe extending the full depth of the pit (Ventura

County 2020). Effluent seeps through the bottom and sides of the pit into the surrounding soil. Seepage pits are used when soil conditions near the ground surface are unsatisfactory for leach fields (Ventura County 2020). Typically, seepage pits are used with septic tank systems, which provide a moderate level of wastewater treatment via settling and anaerobic processes before discharging effluent to the pits.

4.6.1.2 Recycled Water Use

Recycled water is used for agricultural irrigation applications throughout California. Beginning with the first use of recycled water for landscape irrigation about 100 years ago, agencies across California have continued to innovate and improve the process to treat and beneficially reuse their wastewater (WateReuse 2019). The SWRCB establishes general policies governing the permitting of recycled water projects, develops uniform water recycling criteria appropriate to particular uses of water, reviews and approves Title 22 engineering reports for recycled water use, and allocates and disperses funding for recycled water projects consistent with its roles of protecting water quality, public health, and sustaining water supplies. When used in compliance with the Water Quality Control Policy for Recycled Water (Recycled Water Policy), Title 22, and other applicable state and federal water quality laws, the SWRCB "finds that recycled water is safe for approved uses, and strongly supports recycled water as a safe alternative to fresh water or potable water for such approved uses" (SWRCB 2018).

4.6.1.3 Vectors

A "vector" is any insect, arthropod, rodent, or other animal of public health significance that can cause human discomfort or injury, or is capable of harboring or transmitting disease. Disease causing microorganisms can be carried by a vector, such as a flea, tick, or mosquito, that transfers the disease agent from its source in nature to a human host. In Ventura County, the most substantial vector populations include mosquitoes and rodents. Vector sources occur where site conditions provide habitat suitable for breeding. Within a new development, such as the proposed housing complex, ponding of water and other water storage features could result in aquatic habitat suitable for mosquitoes and other vector species.

4.6.1.4 Regulatory Setting

State Regulations

Water Quality Control Policy for Recycled Water (Recycled Water Policy)

The Recycled Water Policy (SWRCB 2018) outlines policies for safe use of recycled water. The Policy requires annual reporting of recycled water projection and reuse to the SWRCB, including annual volume of treated wastewater distributed for beneficial use (e.g., agricultural irrigation). The Recycled Water Policy identifies three goals:

- **Goal 3.1.1.** Increase the use of recycled water from 714,000 acre-feet per year (AFY) in 2015 to 1.5 million AFY by 2020 and to 2.5 million AFY by 2030.
- **Goal 3.1.2.** Reuse all dry weather direct discharges of treated wastewater to enclosed bays, estuaries and coastal lagoons, and ocean waters that can be viably put to a beneficial use. For the purpose of this goal, treated wastewater does not include discharges necessary to maintain beneficial uses and brine discharges from recycled water facilities or desalination facilities.

- **Goal 3.1.3.** Maximize the use of recycled water in areas where groundwater supplies are in a state of overdraft, to the extent that downstream water rights, instream flow requirements, and public trust resources are protected.

California Code of Regulations Water Recycling Criteria (Uniform Statewide Recycling Criteria)

Title 22 of the CCR, Division 4, *Environmental Health*, Chapters 1 through 3 outline California's health requirements related to recycled water. The intent of Title 22 is to ensure protection of public health associated with the use of recycled water. The regulations establish acceptable levels of constituents in recycled water for a range of uses and assurance of reliability in the production of recycled water. The SWRCB governs the permitting of recycled water projects, develops uniform water recycling criteria, and reviews and approves Title 22 engineering reports for recycled water use.

Title 22 lists 40 specific uses allowed with disinfected tertiary recycled water (such as irrigating parks), 24 specific uses allowed with disinfected secondary recycled water (such as irrigating animal feed and other unprocessed crops), and seven specific uses allowed with undisinfected secondary recycled water (such industrial uses). Irrigation of food crops is an allowed use of disinfected recycled water under Title 22.

See Section 4.9, *Water Resources – Surface Water Quality*, of this EIR for requirements related to the discharge of water pursuant to the Porter-Cologne Water Quality Control Act (California Water Code, Division 7, Section 13000 et seq.).

California Building Code

The California Building Code (CBC), which is codified in Title 24 of the CCR Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, egress facilities, and general building stability. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all building and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. It includes voluntary tiers to encourage building practices that improve public health, safety, and general welfare by promoting a more sustainable design. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

California Health and Safety Code, Vector Control

Sections 116110 through 116112 of the California Health and Safety Code establishes mosquito abatement and vector control districts, which are charged to protect California residents and their communities against the threats of vector-borne diseases.

Local Regulations

Ventura County General Plan

The following Ventura County General Plan goals and policies are related to public health.

- **Goals**
  - **4.4.1-1.** Ensure the provision of adequate individual and public sewage/waste collection, treatment, and disposal facilities to meet the County's current and future needs in a manner which will protect the natural environment and ensure protection of the public's health, safety, and welfare.
- **Policies**
  - **4.4.2-1.** Community sewage treatment facilities and solid waste disposal sites shall be deemed consistent with the General Plan only if they are designated on the Public Facilities Map. On-site septic systems (i.e., individual sewage disposal systems), on-site wastewater treatment facilities, waste transfer stations, off-site waste treatment facilities, and on-site storage facilities are consistent with the General Plan if they conform to the goals, policies, and programs of the General Plan.
  - **4.4.2-2.** Any subdivision, or discretionary change in land use having a direct effect upon the volume of sewage, shall be required to connect to a public sewer system. Exceptions to this policy to allow the use of septic systems may be granted in accordance with County Sewer Policy. Installation and maintenance of septic systems shall be regulated by the County Environmental Health Division in accordance with the County's Sewer Policy, County Building Code, and County Service Area 32.
  - **4.4.2-3.** In order to reduce the need for additional wastewater treatment capacity, the County shall require new discretionary development to utilize water-conserving design features.
  - **4.4.2-5.** Waste treatment and disposal operations shall be designed and conducted in a manner that is compatible with surrounding land uses such that the potential impacts are mitigated to less than significant levels, or, where no feasible mitigation measures are available, a statement of overriding considerations consistent with CEQA shall be adopted. At the end of such operations, the site shall be restored to a use compatible with surrounding land uses.

Vector Control Program

The Vector Control Program within the County's Environmental Health Division is responsible for performing mosquito monitoring and control activities at more than 2,000 potential mosquito breeding sources to prevent and minimize the exposure of the public to mosquito-borne diseases, such as West Nile Virus, other types of encephalitis, and malaria. The Vector Control Program also monitors unincorporated county areas for plague, lyme disease, and hantavirus to prevent and minimize exposure of the public to such diseases.

4.6.2 Impact Analysis

4.6.2.1 Significance Thresholds

Per the Initial Study Assessment Guidelines (County 2011), impacts related to public health would be potentially significant if the proposed project would:

1. Result in impacts to public health from environmental factors as set forth in the "Public Health" section of the County's Initial Study Assessment Guidelines.

2. Be inconsistent with the applicable General Plan Goals and Policies for "Public Health" in the County's Initial Study Assessment Guidelines.

The County's Initial Study Assessment Guidelines require an assessment to determine whether the project is in compliance with applicable state regulations related to human health, the Ventura County Building Code, and other applicable guidelines and policies.

Additionally, projects proposing to utilize groundwater in any capacity are required by the County to test the groundwater for perchlorate and trichloroethylene (TCE). The County also requires testing of the soil for perchlorate and TCE for projects that would result in an increase in density to determine the degree of potential threat of off-site contamination of soil.

A determination of a less than significant impact to public health can be made if the project is in compliance with applicable state regulations.

The project site is not located within two miles of a former and/or current rocket engine testing facility and, therefore, is not required to comply with additional requirements included in the Initial Study Assessment Guidelines specific to projects within two miles of a rocket engine testing facility.

4.6.2.2 Project Impacts and Mitigation Measures

Threshold 1:	Would the project result in impacts to public health from environmental factors as set forth in the "Public Health" section of the County's Initial Study Assessment Guidelines?

IMPACT PH-1 OPERATION OF THE CWWTF WOULD REQUIRE ROUTINE TRANSPORT, STORAGE, USE, AND DISPOSAL OF HAZARDOUS MATERIALS FOR PURPOSES OF TREATMENT OF WASTEWATER AND SOLIDS. FACILITY OPERATION WOULD BE SUBJECT TO EXISTING AND FUTURE FEDERAL, STATE, AND LOCAL HEALTH AND SAFETY REQUIREMENTS, INCLUDING THOSE ESTABLISHED FOR THE HANDLING, STORAGE, TRANSPORTATION, AND DISPOSAL OF HAZARDOUS MATERIALS. THEREFORE, IMPACTS WOULD BE LESS THAN SIGNIFICANT.

An OWTS that is undersized, improperly installed, failing, or poorly maintained has the potential to create a public nuisance and/or contaminate groundwater. Wastewater from an OWTS can contain contaminants such as nitrates, bacteria, chemicals, and viruses. If an OWTS is designed incorrectly or is not constructed in conformance with applicable building codes and construction practices, contaminants can enter the groundwater supply or streams and may result in the ponding of sewage aboveground, causing direct exposure to people and animals.

The Ventura Regional Sanitation District would operate and maintain the CWWTF on the project site in compliance with mandatory laws and regulations. As discussed below, with adherence to state and local OWTS regulations and proper maintenance of tanks and seepage pits, the proposed project would not result in significant public health impacts from environmental factors as set forth in the "Public Health" section of the County's Initial Study Assessment Guidelines.

Operation of the CWWTF would require routine transport, storage, use, and disposal of hazardous materials (e.g., chlorine, sodium hypochlorite, hydrogen peroxide) for purposes of treatment of wastewater. Treatment materials would be transported to the project site via truck. Truck deliveries would access the CWWTF site via the two access connections to Somis Road, as shown in Figure 2-3b in Section 2, *Project Description*. Chemical supplies not actively in use in CWWTF treatment equipment may be stored in the maintenance storage shed at the CWWTF. The maintenance storage shed is a secure location, located inside the locked gate around the facility.

Facility operation would be subject to existing and future federal, state, and local health and safety requirements for the handling, storage, transportation, and disposal of hazardous materials, including requirements found in the following regulations and guidelines:

- Ventura County OWTS Technical Manual
- Ventura County Building Code
- California Plumbing Code
- State Water Resources Control Board Order No. R4-2019-0024 – General Waste Discharge Requirements for Advanced Onsite Wastewater Treatment Systems
- State Water Resources Control Board Order WQ 2016-0068-DDW – Water Reclamation Requirements for Recycled Water Use

Regulatory compliance would ensure that chemicals are properly stored and handled to minimize spills and protect public health such that impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 1:	Would the project result in impacts to public health from environmental factors as set forth in the "Public Health" section of the County's Initial Study Assessment Guidelines?

IMPACT PH-2 THE CWWTF WOULD TREAT WASTEWATER TO TERTIARY TREATMENT STANDARDS AND PRODUCE RECYCLED WATER FOR AGRICULTURAL IRRIGATION. EXCESS RECYCLED WATER AND TREATED WASTEWATER EFFLUENT FROM THE CWWTF NOT MEETING RECYCLED WATER QUALITY STANDARDS WOULD BE DISPERSED THROUGH A SERIES OF UNDERGROUND SEEPAGE PITS. REGULATORY COMPLIANCE WOULD MINIMIZE PUBLIC HEALTH RISKS ASSOCIATED WITH RECYCLED WATER USE AND EFFLUENT DISPERSAL. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Recycled Water Agricultural Irrigation

As described in Section 2, *Project Description*, the recycled water produced at the CWWTF would be used to provide agricultural irrigation to approximately 70 acres of off-site orchards located adjacent to the project site.

Surface water quality issues are analyzed in detail in Section 4.9, *Water Resources – Surface Water Quality*. As discussed therein, the project applicant would be required to submit a Title 22 Report for "Production, Distribution, and Use of Recycled Water" to the State Water Resources Control Board for review and approval. The County's Building and Safety Division also has approval authority over the CWWTF. The Los Angeles Regional Quality Control Board would regulate the operation of the facility. As required by water discharge requirements and water reclamation requirements, constituents (pollutants) in the recycled water would be tested daily, weekly, and/or monthly.

The recycled water used for agricultural irrigation would be subject to compliance with CCR Title 22, Division 4, *Environmental Health*, Chapter 3, which includes water recycling criteria for the treatment of recycled water used for surface irrigation and includes separate treatment standards depending on whether recycled water will come into contact with the edible portion of food crops eaten raw by humans. Per Section 60321, recycled water generated at the CWWTF would be sampled at least once daily for total coliform bacteria. In addition, recycled water would be

continuously sampled for turbidity using a continuous turbidity meter and recorder. Per Section 60310, no impoundment of disinfected tertiary recycled water shall occur within 100 feet of any domestic water supply well. Per Section 60335, alarm devices would be installed at the CWWTF to warn the facility operator of loss of power from the normal power supply or failure of various treatment processes.

The CWWTF would also comply with all applicable water reclamation requirements for recycled water use established by SWRCB Order WQ 2016-0068-DDW (Water Reclamation Requirements for Recycled Water Use). The Order prohibits recycled water from being applied for irrigation during periods when soils are saturated and restricts runoff of applied irrigation water in order to protect surface water quality and potable water systems.

Standards for non-potable reuse are designed to be protective of human and environmental health. When used in compliance with the Recycled Water Policy, the Uniform Statewide Recycling Criteria, and applicable water quality laws, the SWRCB finds that recycled water is safe for approved uses, including agricultural irrigation. Compliance with applicable regulations would protect public health. Therefore, impacts related to recycled water agricultural irrigation would be less than significant.

Effluent Dispersal

Excess recycled water and any treated wastewater effluent not meeting recycled water quality standards would be dispersed through a series of underground seepage pits on the west side of the project site. As previously described, seepage pits are underground, rock-filled pits that receive wastewater effluent and disperse it through the bottom and sides of the pit into the surrounding soil. Seepage pits are not open to the air.

According to seepage pit field tests performed and detailed in the Seepage Pit Performance Test Report (Appendix G), the minimum absorption rate of soils in the seepage pit area is 3.4 gallons of water per square foot per day (Earth Systems Pacific 2019). Based on the minimum absorption rate per performance testing, the project would require approximately 60 seepage pits for dispersal of excess recycled water under full buildout conditions. Seepage pits would be approximately five feet in diameter and 50 vertical feet, spread across a 21,600-square-foot effluent dispersal field on the west side of the project site (WREA 2019).

The seepage pits would be located entirely underground and, therefore, would not provide a vector-related public health hazard (e.g., mosquito breeding habitat).

Seepage pits are typically used for septic tank systems, which provide basic treatment for domestic wastewater flows. The project's CWWTF would provide a higher level of treatment than is typically offered by septic systems before discharging treated effluent to the seepage pits in the dispersal field. The CWWTF design, including seepage pit design, would be subject to review and approval from the County of Ventura Environmental Health Division and the CWWTF would be constructed in conformance with applicable building codes and construction practices. The Ventura County Building Code (2019) identifies minimum setbacks between seepage pits and buildings, property lines, surface waters, domestic water wells and pipelines, and property lines. The Code also contains seepage pit sizing requirements and requirements pertaining to rock and sand fill.

Public health impacts related to seepage pits would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 2:	Would the project be inconsistent with the applicable General Plan Goals and Policies for "Public Health" in the County's Initial Study Assessment Guidelines?

IMPACT PH-3 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The County's Initial Study Assessment Guidelines does not list any specific County General Plan goals or policies with which a project should be consistent. Nonetheless, the project would be consistent with the County General Plan goals and policies listed previously under Regulatory Setting. The project's consistency is analyzed in detail in Section 4.10, *Land Use and Planning*. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

4.6.2.3 Cumulative Impacts

The geographic scope for cumulative public health impacts is the Somis area. This geographic scope is appropriate for public health because public health impacts are localized and specific to the area in which public health hazards exist. Cumulative development within this geographic scope includes the cumulative projects summarized in Table 3-1.

Cumulative development would generally increase density in the Somis area. The project's CWWTF would be designed to accommodate the full buildout of the project's housing complex, and would not serve other existing or future development. Therefore, any public health risks associated with operation of the project would not increase with cumulative development, nor would it exacerbate public health risks associated with cumulative development. In addition, cumulative development would also be required to adhere to all applicable federal, state, and local regulations designed to protect public health.

Therefore, cumulative impacts would be less than significant. Consequently, the proposed project would not have a cumulatively considerable contribution to a significant cumulative impact related to public health.

4.7 Transportation

This section analyzes the potential for the proposed project to cause significant impacts to the existing transportation and circulation facilities in project area. The analysis in this section is based in part on a Traffic Study prepared for the project by Associated Transportation Engineers (ATE) on February 21, 2020. The full study is provided in Appendix H.

It is noted that this EIR does not include a discussion or analysis of traffic with regard to roadway segment or intersection level of service (LOS) as such is no longer a requirement under CEQA. However, LOS is discussed in detail in the Traffic Study (ATE 2020; Appendix F). LOS is also discussed in Section 4.10, *Land Use and Planning*, in terms of whether the proposed project complies with General Plan policies relating to LOS.

4.7.1 Setting

4.7.1.1 Roadway Network

The study-area circulation system is comprised of U.S. Highway 101, State Route 118, State Route 34, Las Posas Road-Upland Road, Flynn Road, Adolfo Road, Daily Drive, Ventura Boulevard, Balcom Canyon Road and Grimes Canyon Road which serve as the major arterials, and collector streets. The following text provides a brief discussion of the primary components of the study-area street network.

U.S. Highway 101, located south of the site, is a multi-lane freeway that serves as a major arterial for the City of Camarillo and is the principal inter-city route along this portion of the Pacific Coast. The segment of U.S. Highway 101 in the study-area is 6-lanes with auxiliary on-off ramp lanes. Primary access between the freeway and the project site is provided via the signalized hook ramps at Daily Drive and Ventura Boulevard.

State Route 118 (Los Angeles Avenue), located north of the project site, is a 2- to 6-lane highway that extends from the State Route 126 (Santa Paula Freeway) in the City of Ventura to State Route 210 (Foothill Freeway) east of the City of San Fernando. State Route 118 is signalized at Somis Road.

State Route 34 (Somis Road/Lewis Road) in the study-area is a 2-lane north-south primary arterial. State Route 34 connects Somis to the City of Camarillo and City of Oxnard. The State Route 118 (Los Angeles Avenue)/State Route 34 (Somis Road) intersection provides regional access to the project site.

Las Posas Road-Upland Road is a 4-lane secondary arterial roadway that extends south to Pleasant Valley Road. The roadway extends east from Ponderosa Drive to Lewis Road as Las Posas Road. The roadway continues east from Lewis Road to Santa Rosa Road as Upland Road. South of Ponderosa Road, Las Posas is primary arterial. Las Posas Road-Upland Road serves residential, and commercial land uses in the study-area. The intersections of Las Posas Road/Camino Alvarez, Las Posas Road-Upland Road/Lewis Road and Upland Road/Flynn Road are signalized.

Daily Drive, located south of the site, is a 2-lane east-west collector roadway that provides access to the commercial and residential area located along the northern frontage of U.S. Highway 101 between Las Posas Road and Lewis Road. The U.S. Highway 101northbound/Daily Drive ramp intersection and Daily Drive/Lewis Road intersections are controlled by traffic signals.

Ventura Boulevard, located south of the site, is a 2- to 4-lane east-west secondary roadway that extends from Lewis Road to Wood Road west of the Camarillo Town Center. Ventura Boulevard provides access to the commercial and residential area located along the southern frontage of U.S. Highway 101. The U.S. Highway 101 southbound/Ventura Boulevard ramp intersection and Ventura Boulevard/Lewis Road intersections are controlled by traffic signals.

Adolfo Road is a 4-lane secondary arterial roadway that extends east from Ponderosa Drive to its terminus at the Conejo Creek. Adolfo Road serves residential, commercial and industrial land uses in the study area. The Lewis Road/Adolfo Road intersection is signalized.

Santa Clara Avenue is a 2-lane secondary arterial roadway that extends south from State Route 118 to U.S. Highway 101. Santa Clara Avenue serves agricultural residential and industrial land uses in the study-area. The State Route 118/Santa Clara Avenue intersection is signalized.

Flynn Road is a 4-lane secondary arterial/industrial collector roadway that extends south from Upland Road to Mission Oaks Boulevard. Flynn Road serves residential, commercial and industrial land uses in the study area. The Upland Road/Flynn Road intersection is signalized.

Balcom Canyon Road is a 2-lane rural roadway that extends north from State Route to Bradley Road. Balcom Canyon Road serves agricultural and residential land uses in the study area. The State Route 118/Balcom Canyon Road intersection is signalized.

Grimes Canyon Road is a 2-lane rural roadway that extends north from State Route 118 to Broadway. Grimes Canyon Road serves agricultural and residential land uses in the study area. The State Route 118/Grimes Canyon Road intersection is signalized.

4.7.1.2 Regulatory Setting

State Regulations

Senate Bill 743 – Transportation Impacts

Adopted in 2013, Senate Bill (SB) 743 required the Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address transportation impact metrics under CEQA. Section 15064.3 was added to the State CEQA Guidelines requiring transportation impact analysis be based on VMT, instead of a congestion metric (such as LOS) and stating that a project's effect on automobile delay shall not constitute a significant environmental impact, as previously required. In December 2018, OPR published a Technical Advisory on Evaluating Transportation Impacts, including guidance for VMT analysis (OPR 2018). The Office of Administrative Law approved the updated CEQA Guidelines and lead agencies were given until July 1, 2020 to implement the updated guidelines for VMT analysis.

Assembly Bill 1266 – Traffic Control Devices: Bicycles (2019)

Assembly Bill (AB) 1266 requires Caltrans to provide guidance on the ways in which to notify bicyclists that they are allowed to traverse straight through an intersection when a right-turn-only lane requires vehicles to turn. Caltrans will be required to develop standards on lane striping, regulatory signage, and pavement markings in these scenarios.

Local Regulations

Ventura County Non-Coastal Zoning Ordinance

SECTION 8108-4.8.1 – REDUCTIONS IN NUMBER OF MOTOR VEHICLE PARKING SPACES REQUIRED

Discusses an applicant's ability to reduce the minimum number of parking spaces required with a new development. This may be accomplished by an applicant funded parking study, a Transportation Demand Management Plan, the provision of affordable or senior housing, as well as other means. The applicant's ability to fund and prepare a Transportation Demand Management Plan to reduce vehicle trips to the land use could contribute to reduced VMT, encourage a shift to non-vehicular travel modes and support a more vibrant regional multimodal transportation network.

SEC. 8108-5 – MOTOR VEHICLE PARKING DESIGN STANDARDS; SEC. 8108-6 BICYCLE PARKING DESIGN STANDARDS; AND SEC. 8108-8 – LOADING AREAS

These sections establish design standards to guide the development of safe parking and loading access for all modes and users.

Sec. 8109-0.7 – Transportation Demand and Trip Reduction Measures

This section discusses the minimum requirements of the applicant prior to the approval of discretionary development as it relates to standards for transportation demand management and trip reduction measures. These standards provide an opportunity to reduce VMT and encourage mode shift to non-vehicular travel modes.

Article 6: Parking and Loading Requirements

Article 6 discusses the requirements for the amount, location, and design of parking and loading access for motor vehicles and bicycles. Requirements and standards within this section intends to promote a balanced, safe, and accessible, and environmentally sound multimodal transportation network.

Draft Ventura County 2040 General Plan

Circulation, Transportation, and Mobility Element

The following policies from the Draft Ventura County 2040 General Plan Circulation, Transportation, and Mobility Element are applicable to the proposed project.

- **Policy CTM-1.1: Vehicle Miles Traveled (VMT) Standards and CEQA Evaluation.** The County shall require evaluation of County General Plan land use designation changes, zone changes, and discretionary development for their individual (i.e., project-specific) and cumulative transportation impacts based on Vehicle Miles Traveled (VMT) under the California Environmental Quality Act (CEQA) pursuant to the methodology and thresholds of significance criteria set forth in the County Initial Study Assessment Guidelines.
- **Policy CTM-1.2: Projects with Significant Transportation Impacts.** County General Plan land use designation changes, zone changes, and discretionary development that would cause an individual (i.e., project-specific) or cumulative significant transportation impact based on Vehicle

Miles Traveled (VMT) under the California Environmental Quality Act (CEQA) shall be prohibited unless:

1. There are no feasible mitigation measures available that would reduce the impact to a less than significant level; and
2. The County's decision-making body, after balancing, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of the project against its unavoidable transportation impact and any other environmental risks, determines that the benefits of the project outweigh the unavoidable adverse environmental impacts and adopt a statement of overriding considerations pursuant CEQA.

- **Policy CTM-1.3: County Level of Service (LOS) Standards.** The County shall maintain LOS standards for use as part of the County's transportation planning including the traffic impact mitigation fee program, and the County's review and consideration of proposed land use legislation and discretionary development. For purposes of County transportation planning and review and consideration of proposed land use legislation and discretionary development, the County shall use the following minimum acceptable Level of Service (LOS) for road segment and intersection design standards within the Regional Road Network and all other County-maintained roadways:
  a. LOS 'C' for all Federal functional classification of Minor Collector (MNC) and Local roadways (L); and
  b. LOS 'D' for all Federal functional classifications except MNC and L, and Federal and State highways in the unincorporated area, except as otherwise provided in subparagraph (c and d;
  c. LOS 'E' for State Route 33 between the northerly end of the Ojai Freeway and the city of Ojai, Santa Rosa Road, Moorpark Road north of Santa Rosa Road, State Route 34 north of the city of Camarillo, and State Route 118 between Santa Clara Avenue and the city of Moorpark;
  d. LOS 'F' for Wendy Drive between Borchard Drive to Lois Avenue; and
  e. The LOS prescribed by the applicable city for all federal highways, state highways, city thoroughfares and city-maintained local roads located within that city, if the city has formally adopted and is implementing a General Plan policy, ordinance, or a reciprocal agreement with the County regarding development in the city that is intended to improve the LOS of County-maintained local roads and federal and state highways located within the unincorporated area of the county.
  f. At any intersection between two or more roads, each of which has a prescribed minimum acceptable LOS, the lower LOS of the roads shall be the minimum acceptable LOS for that intersection.
- **Policy CTM-1.4: Level of Service (LOS) Evaluation.** County General Plan land use designation changes and zone changes shall be evaluated for their individual (i.e., project-specific) and cumulative effects, and discretionary developments shall be evaluated for their individual effects, on Level of Service (LOS) on existing and future roads, to determine whether the project:
  a. Would cause existing roads within the Regional Road Network or County-maintained roadways that are currently functioning at an acceptable LOS to function below an acceptable LOS;

b. Would add traffic to existing roads within the Regional Road Network or County-maintained roadways that are currently functioning below an acceptable LOS; and

c. Could cause future roads planned for addition to the Regional Road Network or County maintained roadways to function below an acceptable LOS.

d. The Level of Service (LOS) evaluation shall be conducted based on methods established by the County.

- **Policy CTM-1.5: Projects with Unacceptable Level of Service (LOS).**

1. County General Plan land use designation changes and zone changes that would cause any cumulative unacceptable LOS as determined pursuant to Policies CTM-1.3 and CTM-1.4 shall be prohibited unless the Board of Supervisors imposes all feasible conditions of approval to address all unacceptable LOS effects and, after balancing, as applicable, the project's economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, against the project's unacceptable LOS effects, determines that the benefits of the project outweigh the project's unacceptable LOS effects.
2. County General Plan land use designation changes, zone changes, and discretionary development that would individually (i.e., project-specific) cause an unacceptable LOS effect as determined pursuant to Policies CTM-1.3 and CTM-1.4 shall be prohibited unless the improvements to the roadway and intersections are included in the Public Works Agency, Transportation Department Strategic Master Plan with a funding mechanism identified and the project is conditioned on the payment of a fee proportional to the project's fair share of unacceptable LOS effects.
3. The following are exempt from this Policy:
    a. Farmworker Housing Complexes and other housing exclusively for lower-income households. Affordable housing developments, pursuant to Article 16 of the Non-Coastal Zoning Ordinance, where such developments are served by roads that are currently operating at LOS "E" or better;
    b. Additional dwellings and lots on Cultural Heritage Sites as permitted in the Non-Coastal Zoning Ordinance;
    c. Agriculture and Agricultural Operations as permitted in the Coastal and Non-Coastal Zoning Ordinances, where such developments are served by roads that are currently operating at LOS "E" or better;
    d. The unacceptable LOS exists on a City-maintained road or federal or state highway located within a city unless the applicable city has formally adopted and is implementing a general plan policy, ordinance, or a reciprocal traffic impact mitigation fee agreement with the County regarding development in the city that is intended to improve the LOS of County-maintained local roads and federal and state highways located within the unincorporated area of the county;
    e. Allow LOS "F" for Wendy Drive and maintain as two-lane road; and
    f. If the LOS effects of a County-approved Specific/Area Plan are determined acceptable pursuant to Policies CTM-1.3 and CTM-1.4, the LOS effects of any subsequent development that is consistent with the approved Specific/Area Plan shall be exempt from this Policy.

- **Policy CTM-1.7: Pro Rata Share of Improvements.** The County shall require discretionary development that would generate additional traffic pays its pro rata share of the cost of added

vehicle trips and the costs of necessary improvements to the Regional Road Network pursuant to the County's Traffic Impact Mitigation Fee Ordinance.

- **Policy CTM-2.3: County Road Access.** The County shall require discretionary development with access onto a County road to have the access point(s) designed and built to County standards.
- **Policy CTM-2.18: Complete Streets Standards in Existing Communities.** The County shall require discretionary development in designated Existing Communities to construct roadways to urban standards and Complete Streets principles, including curb, gutter, sidewalks, and bike lanes when there is a nexus for improvement. The County shall rely on the guidelines and design standards for Complete Streets design established by the California Manual on Uniform Traffic Control Devices (CAMUTCD), Caltrans in the Highway Design Manual, and Complete Streets Guidelines (pursuant to Deputy Directive-64-R2), Federal Highway Administration, American Association of State Highway and Transportation Officials (AASHTO).
- **Policy CTM-2.20: Safe Pedestrian Crossings.** The County shall improve pedestrian safety at intersections and mid-block locations in Existing Communities through approved features consistent with the California Manual on Uniform Traffic Control Devices (CAMUTCD), Highway Design Manual, Federal Highway Administration, American Association of State Highway and Transportation Officials (AASHTO), and the National Cooperative Highway Research Program Report 498 (Application of Pedestrian Crossing Treatments for Streets and Highways).
- **Policy CTM-2.27: Discretionary Development and Conditions of Approval to Minimize Traffic Impacts.** The County shall require that discretionary development be subject to permit conditions of approval, where feasible, to minimize traffic impacts by incorporating pedestrian and bicycle pathways, bicycle racks and lockers, ridesharing programs, transit improvements (bus turnouts, shelters, benches), and/or transit subsidies for employees or residents of the proposed development.
- **Policy CTM-3.5: Bicycle Routes in Rural Areas.** The County shall plan for bicycle network connectivity in rural, agricultural, and open space areas in a way that supports and complements business and agricultural activities in those areas.
- **Policy CTM-3.10: Bicycle Storage Facilities.** The County shall require adequate bicycle storage facilities (e.g., bicycle racks, lockers) for discretionary development as determined by allowable land uses at a given site.
- **Policy CTM-6.3: Permeable Pavement.** As part of new roadway planning and design as part of discretionary development, the County shall promote the use of permeable paving and other passive drainage features such as bioswales to prevent flooding, particularly in urban areas.
- **Policy CTM-6.5: Electric Vehicle Charging Stations.** The County shall support the installation of electric vehicle charging stations, where feasible, at County facilities, parking lots, park-and-ride lots, truck stops, and new development.

4.7.2 Impact Analysis

4.7.2.1 Significance Thresholds

Methodology

Vehicle Miles Traveled

As implemented under Section 15064.3 of the CEQA Guidelines states that a project's effect on automobile delay shall not constitute a significant environmental impact, as previously required, and VMT is the required metric to be used for identifying CEQA impacts and mitigation, instead of a congestion metric (such as LOS). While some jurisdictions may choose to retain LOS standards as a project's condition of approval, CEQA impacts and/or mitigation measures are no longer based on changes to LOS.

VMT was chosen as the primary metric to better integrate land use and multimodal transportation choices, and to encourage alternative transportation, greater efficiency, and reduced GHG emissions. OPR's Technical Advisory on Evaluating Transportation Impacts provides technical recommendations regarding assessment of VMT, thresholds of significance and mitigation measures (OPR 2018). OPR offers a generalized recommendation of a 15 percent reduction below existing VMT as a threshold of CEQA significance. Trip- or tour-based VMT analysis is recommended over boundary-based VMT analysis as the established and most appropriate methodology for analyzing VMT impacts under CEQA. Trip-based assessment of VMT captures the full extent of the vehicle trip length, including the portion that extends beyond the jurisdictional boundary. VMT impacts are assessed by quantifying trips to or from a jurisdiction, which start or end within the jurisdiction. Conversely, a boundary-based assessment of VMT impacts is quantified by the length of the vehicle trips that occur within the boundaries of a jurisdiction.

As noted in the current CEQA Guidelines, agencies are directed to choose metrics that are appropriate for their jurisdiction to evaluate the potential impacts of a project in terms of VMT. The guidance provided thus far relative to VMT significance criteria is focused on residential, office, and retail uses. For rural land uses, OPR guidance states that fewer options may be available for reducing VMT for projects in rural areas outside of a metropolitan planning organization and significance thresholds may be best determined on a case-by-case basis. The County is in the process of adopting formal thresholds of significance under SB 743. In lieu of formally adopted thresholds of significance, VMT thresholds consistent with OPR's final technical guidance for the analysis of transportation impacts under CEQA were applied in the analysis presented in this EIR.

Roads and Highways – Safety and Design of Public Roads

A project that affects public roadways or intersections would have a less-than-significant impact on the design of the public road system and/or intersections only if the existing public road/intersection complies with the County Road Standards and the proposed public road/intersection improvement/encroachment complies with the County Road Standards.

Pedestrian/Bicycle Facilities

The evaluation of impacts to pedestrian and bicycle facilities typically involves pedestrian and bike routes to and from schools, commercial centers, and transit stops. The impact analysis considers both existing and planned pedestrian and bicycle facilities. A project that would cause actual or potential barriers to existing or planned pedestrian/bicycle facilities may have a significant impact.

In addition, projects that generate or attract pedestrian/bicycle traffic volumes meeting requirements for protected highway crossings or pedestrian and bicycle facilities, such as pedestrian overcrossings, traffic signals, and bikeways, may have a significant impact (County 2011).

Bus Transit

Existing planning and transportation analysis tools currently available are not sophisticated enough to quantify with accuracy specific project impacts on bus transit from most development projects. Because the proposed project is expected to generate more than 100 daily vehicle trips, an analysis of potential impacts to bus transit facilities and/or routes is required. A project would typically result in a significant impact on bus transit if the project would substantially interfere with existing bus transit facilities or routes, or if the project would create a substantial increased demand for additional or new bus transit facilities/services (County 2011).

Significance Thresholds

Per the Initial Study Assessment Guidelines (County 2011), impacts related to transportation would be potentially significant if the proposed project would:

1. Have an adverse, significant project-specific or cumulative impact to the safety and design of roads or intersections within the RRN or LRN;
2. If a private road or private access is proposed, will the design of the private road meet the adopted Private Road Guidelines and access standards of the VCFPD as listed in the Initial Study Assessment Guidelines;
3. Be inconsistent with the applicable General Plan Goals and Policies for "Transportation & Circulation – Roads & Highways – Safety & Design of Private Access" in the County's Initial Study Assessment Guidelines;
4. Involve a road or access, public or private, that complies with VCFPD adopted Private Road Guidelines;
5. Be inconsistent with the applicable General Plan Goals and Policies for "Transportation & Circulation – Roads & Highways – Tactical Access" in the County's Initial Study Assessment Guidelines;
6. Have an adverse, significant project-specific or cumulative impact to pedestrian and bicycle facilities within the RRN or LRN;
7. Generate or attract pedestrian/bicycle traffic volumes meeting requirements for protected highway crossings or pedestrian and bicycle facilities;
8. Be inconsistent with the applicable General Plan Goals and Policies for "Transportation & Circulation – Pedestrian/Bicycle Facilities" in the County's Initial Study Assessment Guidelines;
9. Substantially interfere with existing bus transit facilities or routes, or create a substantial increase in demand for additional or new bus transit facilities/services; and/or
10. Be inconsistent with the applicable General Plan Goals and Policies for "Transportation & Circulation – Bus Transit" in the County's Initial Study Assessment Guidelines.
11. In addition to significance thresholds in the County's Initial Study Assessment Guidelines, impacts related to transportation would be potentially significant if the proposed project would:
12. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b); and/or

13. Conflict or be inconsistent with the VMT reduction goals of the OPR's Technical Advisory on Evaluating Transportation Impacts, including guidance for determining the potential VMT impacts of affordable residential units.

Transportation and circulation impacts related to railroads, airports, harbors, and pipelines are discussed in Section 4.10, *Impacts Found Not to be Significant*.

4.7.2.2 Project Impacts and Mitigation Measures

Threshold 12:	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?
Threshold 13:	Would the project conflict or be inconsistent with the VMT reduction goals of the OPR's Technical Advisory on Evaluating Transportation Impacts, including guidance for determining the potential VMT impacts of affordable residential units?

IMPACT T-1 IMPLEMENTATION OF THE PROJECT WOULD NOT RESULT IN A SUBSTANTIAL INCREASE IN VMT BECAUSE THE PROJECT WOULD PROVIDE 100 PERCENT AFFORDABLE RESIDENTIAL UNITS AND WOULD BE CONSISTENT WITH THE COUNTY NCZO FARMWORKER EMPLOYMENT CRITERIA. THEREFORE, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The County has not yet adopted a methodology or threshold for VMT analyses. As described in Section 4.7.3(a), OPR's Technical Advisory on Evaluating Transportation Impacts provides technical recommendations regarding assessment of VMT, thresholds of significance and mitigation measures (OPR 2018). OPR offers a generalized recommendation of a 15 percent reduction below existing VMT as a threshold of CEQA significance for residential projects. OPR's Technical Advisory also recommends that projects that include affordable residential units may factor the effect of the affordability on VMT into the assessment of VMT. This analysis discusses the project's anticipated VMT based on the guidance available in OPR's Technical Advisory and the project's consistency with the VMT reduction goals of the Southern California Association of Governments' (SCAG) Regional Transportation Plan-Sustainable Communities Strategy (RTP-SCS).

Vehicle Miles Traveled

According to the SCAG RTP-SCS, average daily VMT per capita in Ventura County is anticipated to be 20.2 miles per capita per day in 2040 (SCAG 2016). New VMT that would result from the proposed project were estimated using the California Emissions Estimator Model (CalEEMod), a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant emissions associated with a variety of land use projects. The input data for the proposed project are discussed in detail in Section 4.1, *Air Quality*. CalEEMod output files for the project are included in Appendix C to this report.

Based on the CalEEMod results, the project would result in approximately 7,286,223 annual VMT, or approximately 19,962 daily VMT (Appendix C). The project could add 1,120 additional people to the area; therefore, this is approximately 17.8 daily VMT per capita. The project would therefore yield a daily VMT per capita of approximately 12 percent less than the Ventura County 2040 average of 20.2 miles per capita per day. In addition, this reduction does not account for the fact that the project is an affordable housing project and is therefore presumed to have a less-than-significant impact.

Affordable housing generates less VMT than market-rate housing and generally improves the jobs-housing match, shortening commutes and reducing VMT (OPR 2018). According to OPR's Technical Advisory on Evaluating Transportation Impacts, evidence supports a presumption of a less than significant impact for a 100 percent affordable residential development in infill locations. The project site is not located in what would ordinarily be defined as an infill location, but it would provide 100 percent affordable multi-family housing for farmworkers and the project site is in an agricultural area near where site residents would likely work. The project also would be consistent with Section 8107-41.1 of the County NCZO farmworker employment criteria; potential residents would be required to demonstrate that they either: (1) earn at least 51 percent of their annual income from qualifying agriculture; and/or (2) are employed in agriculture for at least 51 percent of the total days employed on an annual basis.

The affordable housing components and agricultural location of the project are also consistent with the VMT reduction goals of the SCAG RTP-SCS, which concludes that lower income residents generate lower VMT and demonstrate the largest relative VMT reductions with location efficiency. Therefore, the project would not result in a VMT impact consistent with the VMT reduction goals of the OPR's Technical Advisory on Evaluating Transportation Impacts and would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

Mitigation Measures

No mitigation is required.

Threshold 1:	Would the project have an adverse, significant project-specific or cumulative impact to the safety and design of roads or intersections within the RRN or LRN?
Threshold 2:	Would the project if a private road or private access is proposed, will the design of the private road meet the adopted Private Road Guidelines and access standards of the VCFPD as listed in the Initial Study Assessment Guidelines?
Threshold 4:	Would the project involve a road or access, public or private, that complies with VCFPD adopted Private Road Guidelines?

IMPACT T-2 THE PROJECT WOULD NOT MODIFY OR OTHERWISE IMPACT THE DESIGN OF ANY PUBLIC ROADS OR INTERSECTIONS. DIRECT ACCESS TO THE PROJECT WILL BE PROVIDED VIA TWO SHARED ACCESS CONNECTIONS THAT WILL BE DESIGNED TO MEET THE COUNTY FIRE DEPARTMENT DESIGN STANDARDS TO PROVIDE EMERGENCY VEHICLES ACCESS. THEREFORE, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The project would not modify or otherwise impact the design of any public roads or intersections. Regional access to the project is provided by U.S. Highway 101 and State Route 118. Direct access to the project would be provided via two shared access connections to Somis Road (State Route 34) with the North Pleasant Valley Groundwater Desalter Facility. The City of Camarillo will construct a new access connection to Somis Road and improve an existing connection to Somis Road as part of the North Pleasant Valley Groundwater Desalter Facility, approximately 700 feet southwest of where the eastern driveway would intersect with Somis Road at a T-intersection. A shared access agreement allowing the project to utilize the two driveway connections has been established. The segment of Somis Road adjacent to the site access is relatively straight and level, providing good sight distance. The City of Camarillo will be required to construct the access connections to Somis Road to County of Ventura and Caltrans design standards. The two access connections to Somis Road will be designed to meet the County Fire Department design standards to provide emergency

vehicles access. Therefore, the project would result in a less than significant impact associated with public roadway or intersection design and private access.

Mitigation Measures

No mitigation is required.

Threshold 6:	Would the project have an adverse, significant project-specific or cumulative impact to pedestrian and bicycle facilities within the RRN or LRN?
Threshold 7:	Would the project generate or attract pedestrian/bicycle traffic volumes meeting requirements for protected highway crossings or pedestrian and bicycle facilities?

IMPACT T-3 IMPLEMENTATION OF THE PROJECT WOULD NOT MODIFY OR BLOCK EXISTING OR PLANNED PEDESTRIAN/BICYCLE FACILITIES OR OTHERWISE HAVE AN ADVERSE IMPACT ON EXISTING PEDESTRIAN OR BICYCLE FACILITIES. THEREFORE, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Figure 2-3b in Section 2, *Project Description*, shows the proposed housing complex site plan, which includes two shared access connections to Somis Road with a bicycle/pedestrian pathway on the southern access connection. The two access connections to Somis Road would be designed to meet the County Fire Department design standards for the provision of emergency vehicles access. The project also includes a network of meandering pedestrian walkways to provide pedestrian circulation throughout the housing complex. In addition, 379 bicycle parking spaces would be available throughout the housing complex. The project would not modify or block existing or planned pedestrian/bicycle facilities or otherwise have an adverse impact on existing pedestrian or bicycle facilities. Therefore, the project would result in a less than significant impact with respect to pedestrian/bicycle facilities.

Mitigation Measures

No mitigation is required.

Threshold 9:	Would the project substantially interfere with existing bus transit facilities or routes, or create a substantial increase in demand for additional or new bus transit facilities/services?

IMPACT T-4 THE PROJECT'S AFFORDABLE FARMWORKER HOUSING WOULD NOT INTERFERE WITH EXISTING BUS TRANSIT FACILITIES OR ROUTES OR CREATE A SUBSTANTIAL INCREASE IN DEMAND FOR ADDITIONAL OR NEW BUS TRANSIT FACILITIES/SERVICES. THEREFORE, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The project site is located approximately 1 mile southwest of the Somis stop on the Cross Country Limited (Route 77) Ventura County Transportation Commission (VCTC) bus service. The project would provide affordable farmworker housing that would improve the jobs-housing match, shortening commutes to and from the agricultural portions of the County. As a result, the project would not directly affect the Somis stop. Additionally, some farmworkers may use bus service but not in sufficient numbers to overburden the line. Therefore, the project would result in a less than significant impact to bus transit facilities.

Mitigation Measures

No mitigation is required.

Threshold 3:	Would the project be inconsistent with the applicable General Plan Goals and Policies for "Transportation & Circulation – Roads & Highways – Safety & Design of Private Access" in the County's Initial Study Assessment Guidelines?
Threshold 5:	Would the project be inconsistent with the applicable General Plan Goals and Policies for "Transportation & Circulation – Roads & Highways – Tactical Access" in the County's Initial Study Assessment Guidelines?
Threshold 8:	Would the project be inconsistent with the applicable General Plan Goals and Policies for "Transportation & Circulation – Pedestrian/Bicycle Facilities" in the County's Initial Study Assessment Guidelines?
Threshold 10:	Would the project be inconsistent with the applicable General Plan Goals and Policies for "Transportation & Circulation – Bus Transit" in the County's Initial Study Assessment Guidelines?

IMPACT T-5 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would be consistent with the County General Plan goals and policies listed previously under Regulatory Setting. The project's consistency is analyzed in detail in Section 4.10, *Land Use and Planning*. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

4.7.2.3 Cumulative Impacts

Cumulative development would generally increase VMT and demand for transit facilities in the Somis area. According to the SCAG RTP-SCS, average daily VMT per capita in Ventura County is anticipated to be 20.2 miles per capita per day in 2040 (SCAG 2016). The VMT analysis in this section is cumulative in nature, in that it accounts for anticipated future development. As previously discussed, based on the CalEEMod results, the project would result in approximately 7,286,223 annual VMT, or approximately 19,962 daily VMT (Appendix C). The project could add 1,120 additional people to the area; therefore, this is approximately 17.8 daily VMT per capita. Thus, the project would yield a daily VMT per capita of approximately 12 percent less than the Ventura County 2040 average of 20.2 miles per capita per day. In addition, this reduction does not account for the fact that the project is an affordable housing project and is therefore presumed to have a less than significant impact, and cumulative VMT impacts would be less than significant.

Like the proposed project, cumulative development projects would be subject to public safety requirements from County Fire Department, City of Camarillo, County of Ventura, and Caltrans design standards. Consequently, cumulative impacts related to the safety of roads would be less than significant.

Two cumulative development projects (Project Nos. 42 and 44, as shown in Figure 3-1) are located within 0.5 mile of the project site. Project No. 42 is the North Pleasant Valley Groundwater Desalter Facility, which would not generate or attract pedestrian, bicycle, or bus transit demands that would interfere with local facilities. Project No. 44 is a 281-unit residential facility. Development of the proposed project and Project No. 44 would increase demand on local pedestrian, bicycle, and bus transit facilities. However, as described above, the proposed project would not modify or block

existing or planned pedestrian/bicycle facilities or otherwise have an adverse impact on existing pedestrian or bicycle facilities. In addition, the project would provide affordable farmworker housing that would improve the jobs-housing match, shortening commutes to and from the agricultural portions of the County. As a result, the project would not directly affect the Somis stop. Additionally, some farmworkers may use bus service but not in sufficient numbers to overburden the line. Therefore, cumulative impacts to pedestrian, bicycle, and bus transit facilities would be less than significant.

Mitigation Measures

No mitigation is required.

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4.8 Waste Treatment and Disposal Facilities – Solid Waste Facilities

This section assesses potential impacts associated with the proposed project, including the community wastewater treatment facility (CWWTF). In accordance with the County's Initial Study Assessment Guidelines, the analysis in this section focuses on impacts related to biosolids generated and temporarily stored at the CWWTF. The analysis in this section is based in part on the Preliminary On-Site Wafstewater Treatment System Design Report by WREA dated October 2019 (Appendix B). Impacts related to solid waste management (e.g., landfill disposal capacity) are discussed in Section 4.11, *Less Than Significant Environmental Effects*.

4.8.1 Setting

4.8.1.1 Project Site

The project site is currently undeveloped and used for growing row crops. No biosolids are currently generated or stored on-site.

4.8.1.2 Regulatory Setting

State Regulations

California Health and Safety Code, Division 104, Part 13, Chapter 4, Article 7

The California Health and Safety Code, Division 104, Part 13 (Environmental Health) contains regulations for garbage and onsite sewage disposal in California. Chapter 4 (Waste and Waste Disposal), Article 7 (Solid Waste Handling and Disposal) requires the department to prepare and submit minimum standards for solid waste handling and disposal for the protection of the public health.

California Code of Regulations, Title 14, Division 7

CCR Title 14, Division 7 pertains to the California Department of Resources Recycling and Recovery (CalRecycle). Chapter 3 includes minimum standards for solid waste handling and disposal.

California Code of Regulations, Title 27, Division 2

CCR Title 27 (Environmental Protection), Division 2 includes regulations for the treatment, storage, processing, and disposal of solid waste. This division includes criteria for all waste management units, facilities, and disposal sites.

California Public Resources Code, Division 30

In 1989, the California legislature enacted this division as the California Integrated Waste Management Act of 1989. One of the key provisions of this division is to encourage the reduction, recycling, and reuse of solid waste generated in the state.

Local Regulations

Ventura County Ordinance Code, Division 4, Chapter 7

The Ventura County Ordinance Code, Division 4, Chapter 7 includes regulations for solid waste storage, collection, disposal, transfer, resource recovery, and environmental health permits and fees. Section 4706 prohibits maintenance, handling, and storage of solid waste in a manner in which the solid waste: (a) is carried or deposited by the natural elements, such as wind or rain, onto or into any public street, sidewalk, waterway, or other public property; (b) is carried or deposited by the natural elements, such as wind or rain, onto or into any private property owned, leased, or controlled by another person; (c) harbors or breeds any vectors including rats, other rodents, flies, or harmful insects; or (d) pollutes surface or groundwater.

Ventura County General Plan

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goals 4.4.1-1 and 4.4.1-2 and Policies 4.4.2-1, 4.4.1-4, and 4.4.1-6 pertain to solid waste facilities. However, Policies 4.4.2-1 and 4.4.2-4 are not applicable to the proposed project as those policies pertain to projects that are community sewage or solid waste facilities.

- **Goals**
  - **4.4.1-1.** Ensure the provision of adequate individual and public sewage/waste collection, treatment, and disposal facilities to meet the County's current and future needs in a manner which will protect the natural environment and ensure protection of the public's health, safety, and welfare.
  - **4.4.1-2.** Ensure continuous waste disposal capacity to meet the County's current and projected waste disposal needs.
- **Policies**
  - **4.4.2-6.** Applicants for discretionary development shall be encouraged to employ practices that reduce the quantities of wastes generated and shall be requested to engage in recycling activities to further reduce the volume of waste disposed of in landfills.

4.8.2 Impact Analysis

4.8.2.1 Significance Thresholds

Impacts related to solid waste facilities would be potentially significant if the proposed project would:

1. Comply with applicable state and local requirements as set forth in the "Waste Treatment & Disposal Facilities – Solid Waste Facilities" section of the Initial Study Assessment Guidelines; and/or
2. Be inconsistent with the applicable General Plan Goals and Policies for "Waste Treatment & Disposal Facilities – Solid Waste Facilities" in the County's Initial Study Assessment Guidelines.

4.8.2.2 Project Impacts and Mitigation Measures

Threshold 1:	Would the project comply with applicable state and local requirements as set forth in the "Waste Treatment & Disposal Facilities – Solid Waste Facilities" section of the Initial Study Assessment Guidelines?

IMPACT SW-1 THE CWWTF DESIGN WOULD BE SUBJECT TO REVIEW BY AND APPROVAL FROM THE ENVIRONMENTAL HEALTH DIVISION OF THE RESOURCE MANAGEMENT AGENCY OF THE COUNTY OF VENTURA. THE PROJECT WOULD COMPLY WITH APPLICABLE STATE AND LOCAL REQUIREMENTS AS SET FORTH IN THE "WASTE TREATMENT & DISPOSAL FACILITIES – SOLID WASTE FACILITIES" SECTION OF THE INITIAL STUDY ASSESSMENT GUIDELINES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project site is located more than 200 feet from the closest existing Camarillo Sanitary District facilities and is outside both the Camarillo city limits and the Camarillo Sanitary District limits. For these reasons, the Camarillo Sanitary District on-site wastewater treatment would be required for the proposed housing complex.

As described in Section 2, *Project Description,* the proposed project would include construction and operation of a CWWTF that would treat all domestic wastewater generated at the project site to tertiary treatment standards. At full occupancy of the housing complex, the CWWTF would treat an estimated average daily flow of 99,000 gallons of wastewater per day (WREA 2019). Wastewater treatment processes would generate both treated wastewater effluent and biosolid waste. The term "biosolids" refers to solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment plant, also referred to as sewage sludge. "Activated sludge" refers to aerated sewage containing aerobic microorganisms, which help to decompose and break down raw sewage. The CWWTF would not discharge effluent or solid waste into either the County or City of Camarillo sewer systems.

Recycled water would be applied as irrigation water on adjacent agricultural lands. Excess treated wastewater effluent would be dispersed via underground seepage pits. Potential water quality impacts related to the proposed project's recycled water and seepage pits are analyzed in Section 4.10, *Water Resources – Surface Water Quality*.

Biosolids would be temporarily stored on-site and then transported for disposal off-site. Section 4706 of the Ventura County Ordinance Code, Division 4, Chapter 7, prohibits maintenance, handling, and storage of solid waste in a manner in which the solid waste: (a) is carried or deposited by the natural elements, such as wind or rain, onto or into any public street, sidewalk, waterway, or other public property; (b) is carried or deposited by the natural elements, such as wind or rain, onto or into any private property owned, leased, or controlled by another person; (c) harbors or breeds any vectors including rats, other rodents, flies, or harmful insects; or (d) pollutes surface or groundwater.

Sludge wasting pumps would remove a portion of the activated sludge (biosolids) from the CWWTF treatment process to two approximately 12,000-gallon sludge storage tanks until the biosolids are transported for disposal at a facility licensed to accept this type of waste (WREA 2019). Biosolids stored in the sludge storage tanks would not be open to the air, and would therefore not be susceptible to being carried away by natural elements, support any vector habitat, or pollute surface or groundwater.

As discussed in Section 4.10.37, *Waste Treatment and Disposal Facilities – Solid Waste Management*, both the Simi Valley Landfill and Recycling Center and the Toland Road Landfill accept sludge (biosolids) waste and have capacity to accommodate the proposed project's solid waste.

The CWWTF design would be subject to review and approval from the Environmental Health Division of the Resource Management Agency of the County of Ventura. The Environmental Health Division has been designated as the Local Enforcement Agency (LEA) by the County and the incorporated cities within Ventura County, and certified as the LEA by provisions set forth in state minimum standards. The LEA is responsible for the enforcement of State statutes and regulations relative to the storage, transfer, processing, handling, and disposal of solid waste. "State Minimum Standards" refer to the standards and regulations amended and adopted by the state regulatory agency under the California Integrated Waste Management Act of 1989 governing how, when, where, and under what conditions any person may operate or conduct any solid waste operation or facility, solid waste processing, solid waste composting, solid waste handling, or any other solid waste activity, including without limitation the design of any facility or site where such activities may occur.

As the designated LEA for the area, the Environmental Health Division is responsible for the enforcement of State statutes and regulations related to the storage, transfer, processing, handling, and disposal of solid waste. The Environmental Health Division's review process would ensure compliance with applicable state and local requirements pertaining to the storage and transport of biosolids in the project's Conditions of Approval.

Impacts related to compliance with applicable state and local requirements as set forth in the "Waste Treatment & Disposal Facilities – Solid Waste Facilities" section of the Initial Study Assessment Guidelines would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 2:	Would the project be consistent with the applicable General Plan Goals and Policies for "Waste Treatment & Disposal Facilities – Solid Waste Facilities" in the County's Initial Study Assessment Guidelines?

IMPACT SW-2 THE PROJECT WOULD BE CONSISTENT WITH THE APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would be consistent with the County General Plan goals and policies listed previously under Regulatory Setting. The project's consistency is analyzed in detail in Section 4.10, *Land Use and Planning*. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

4.8.2.3 Cumulative Impacts

Table 3-1 in Section 3, *Environmental Settings,* identifies currently planned and pending projects in the vicinity of the project site. Project PL19-0026, located at 1122 Cawelti Road, would involve the development of an agricultural storage yard. The project would include the installation of two

aboveground liquid waste holding tanks (6,000 gallons each) and a loading/spill containment area for temporarily storing liquid waste from portable toilets located on Marz Farms' properties only.

Cumulative development would generally increase density in the Somis area, but would not increase density on the project site beyond the full build-out analyzed in this EIR. The proposed project's CWWTF would be designed to accommodate the full buildout of the project's housing complex, and would not serve other existing or future development. Therefore, the burden on the solid waste facility (i.e., biosolids handling and transport associated with operation of the CWWTF) would not intensify by projects other than the proposed project. Similarly, Project PL19-0026 would temporarily store liquid waste from portable toilets located on its property. Neither the proposed project nor Project PL19-0026 would serve as a permanent solid waste disposal facility. Further cumulative development would not intensify the solid waste storage burdens on these two projects. Consequently, cumulative impacts related to solid waste facilities would be less than significant.

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4.9 Water Resources – Surface Water Quality

This section analyzes the potential impacts on surface water quality that could result from implementation of the proposed project.

This section relies in part on information from the Preliminary Hydrology Memo prepared by Jensen Design and Survey (Appendix I) and the Seepage Pit Performance Test prepared by Earth Systems Pacific (Appendix G).

4.9.1 Setting

4.9.1.1 Calleguas Creek Watershed

The project site is located in the Calleguas Creek Watershed, as shown in Figure 4.9-1. The Calleguas Creek Watershed is located in the southeastern potion of Ventura County and drains an approximately 220,000-acre area. Approximately 85 percent of the rainfall in the watershed occurs from November to March. The Santa Susana and Oak Ridge Mountains form the northern boundary of the watershed, while the southern boundary is delineated by the Simi Hills and Santa Monica Mountains. The watershed includes the cities of Oxnard, Port Hueneme, Camarillo, Moorpark, Simi Valley, and Thousand Oaks, in addition to portions of unincorporated Ventura County (Ventura 2020a).

The greater Calleguas Creek Watershed is made up of seven sub-watersheds at the 12-digit hydrologic unit code (HUC) scale. Land uses vary throughout the watershed, with approximately 50 percent undeveloped land, 25 percent urban areas, and 25 percent agricultural areas (County 2020a)

4.9.1.2 Surface Waters

Major surface water features in the Calleguas Creek Watershed are discussed below and include Lake Bard, Arroyo Simi/Arroyo Las Posas/Calleguas Creek system, Conejo Creek system, Honda Barranca/Beardsley Wash/Revolon Slough, and Mugu Lagoon. Surface waters in the vicinity of the project site are shown in Figure 4.9-1.

Regional

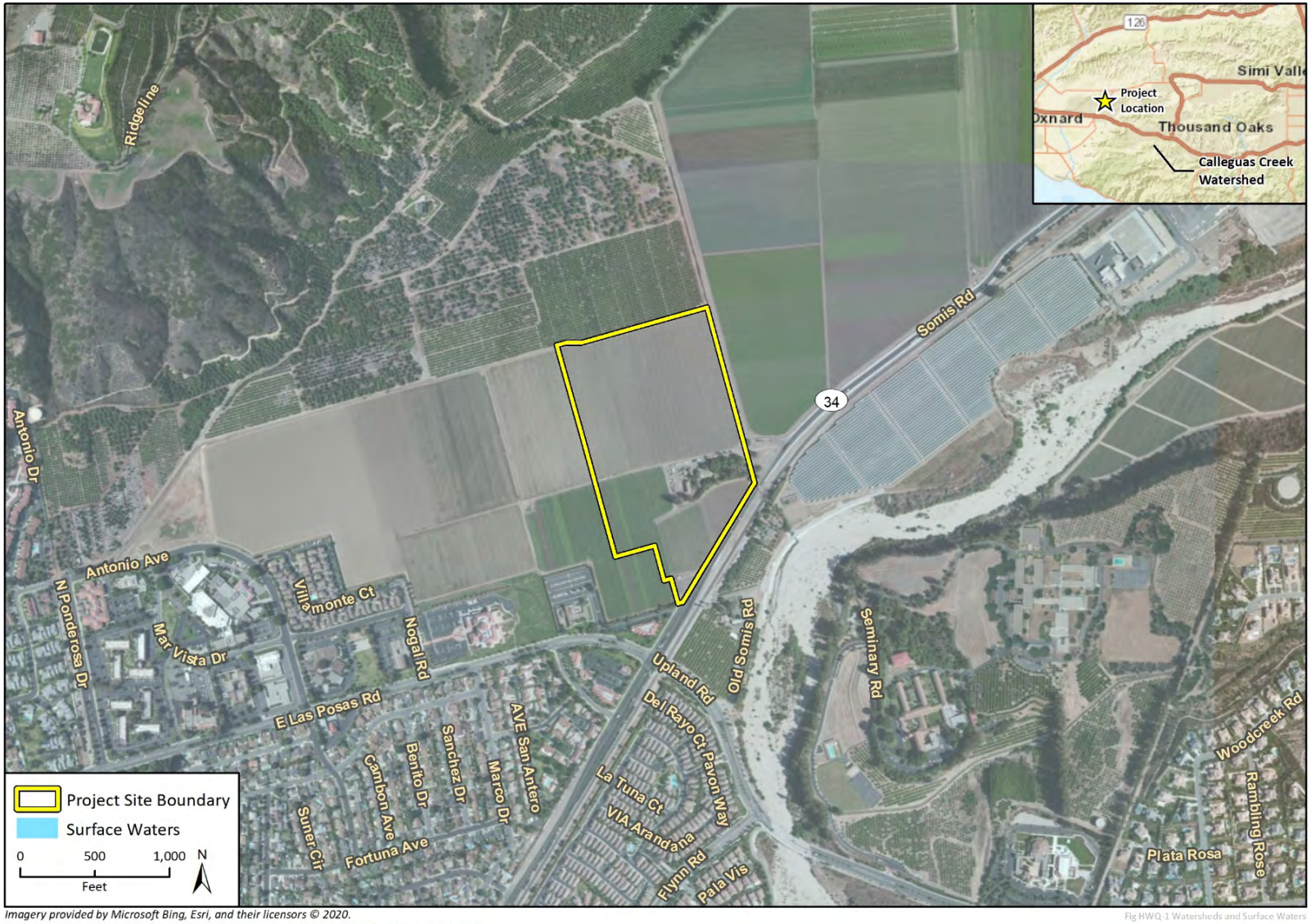
Lake Bard

Lake Bard is an approximately 10,500-acre-foot (AF) surface water reservoir constructed to store treated water from the Metropolitan Water District of Southern California. This water is used to meet emergency demands. Lake Bard is operated by Calleguas Municipal Water District (County 2020a).

Arroyo Simi/Arroyo Las Posas/Calleguas Creek System

This series of creeks drain precipitation and urban runoff from Simi Valley, the eastern Las Posas Valley, much of Pleasant Valley, and the eastern portion of the Oxnard Plain. In addition, Arroyo Simi Creek conveys discharges from a series of dewatering wells operated by the City of Simi Valley, as well as treated effluent from the Simi Valley Water Quality Control Plant. Calleguas Creek also conveys discharge effluent from the Ventura County Waterworks District No. 1's Moorpark

Figure 4.9-1 Watersheds and Surface Waters in the Project Area



Imagery provided by Microsoft Bing, Esri, and their licensors © 2020.
Hydrology data provided by U.S. Geological Survey, 2019, and U.S. Fish & Wildlife Service, 2020.

Fig HWQ-1 Watersheds and Surface Waters

Wastewater Treatment and the Camrosa Water District Water Reclamation Facility under certain conditions (County of Ventura 2020a). The project site is located approximately 800 feet northwest of Arroyo Las Posas Creek.

Conejo Creek System

The Arroyo Santa Rosa, Arroyo Conejo, and Conejo creeks make up the Conejo Creek system. The Santa Rosa Valley, portions of Pleasant Valley, Tierra Rejada Valley, and the City of Thousand Oaks are drained by this system. This system conveys precipitation, agricultural runoff, and effluent from the Hill Canyon Wastewater Treatment Plant and Camarillo Sanitary District Wastewater Reclamation Plant (County of Ventura 2020a).

Honda Barranca/Beardsley Wash/Revolon Slough

The western portion of Las Posas Valley, portions of Pleasant Valley, and portions of the Oxnard Plain are drained by the Honda Barranca/Beardsley Wash/Revolon Slough system. The majority of flow conveyed by this slough comes from agricultural and storm water drainage (County of Ventura 2020a).

Mugu Lagoon

Mugu Lagoon, located at the mouth of the Calleguas Creek Watershed, is a saltwater wetland habitat. Agricultural fields on the Oxnard Plain drain into the Mugu Lagoon via Calleguas Creek and its tributaries (State Water Resources Control Board [SWRCB] 2020).

Project Site

The project site is currently undeveloped and used for growing row crops. The site drains from north to south/southwest at an average slope of less than one percent. Stormwater flow from the project site is directed towards a drainage channel along the west side of the site. The drainage channel flows south to the edge of the Rancho Campana High School parking lot and turns west between the neighboring Rancho Campana High School and Church of Latter-Day Saints properties. The drainage channel conveys flows into an inlet structure 300 feet west of the project site. From here, a City of Camarillo storm drain system carries the stormwater runoff flow to Calleguas Creek (Jensen 2019).

4.9.1.3 Water Quality

Water quality impairments in the Calleguas Creek and its tributaries include ammonia, boron, copper, bacteria, nitrogen, nitrate, selenium, and sulfate, as well as insecticides and pesticides such as dichloro-diphenyl-trichloroethane (DDT), dieldrin, and toxaphene. The Channel Islands Harbor area is impaired by lead and zinc in sediments, and several Oxnard area beaches are impaired by bacteria (County 2020a).

4.9.1.4 Regulatory Setting

Federal Regulations

Clean Water Act

The federal Clean Water Act (CWA), enacted by Congress in 1972 and amended several times, is the primary federal law regulating water quality in the United States. The CWA established the basic

structure for regulating discharges of pollutants into jurisdictional waters of the United States and forms the basis for several state and local laws throughout the country. The CWA gives the United States Environmental Protection Agency (U.S. EPA) the authority to implement federal pollution control programs, such as setting water quality standards for contaminants in surface water, establishing wastewater and effluent discharge limits for various industry contaminants in surface water, establishing wastewater and effluent discharge limits for various industry categories, and imposing requirements for controlling nonpoint-source pollution. At the federal level, the CWA is administered by the U.S. EPA and United States Army Corps of Engineers (USACE). At the state and regional levels in California, the CWA is administered and enforced by the California SWRCB and the nine Regional Water Quality Control Boards (RWQCBs). The project site is located within the jurisdiction of the Los Angeles RWQCB.

Clean Water Act Section 303(d): List of Impaired Water Bodies

Section 303(d) of the CWA requires states, territories, and tribes to identify water bodies that do not meet the water quality objectives (WQOs) for their designated beneficial uses. Each state must submit an updated biennial list of water quality impaired water bodies, called the 303(d) list, to the U.S. EPA. The 303(d) list also identifies the pollutant(s) or stressor(s) causing water quality impairment and establishes a priority for developing a control plan to address the impairment. If a water body is designated as "impaired," then a Total Maximum Daily Load (TMDL) is developed and identified for the affected water body. A TMDL establishes the maximum daily amount of a pollutant allowed in an identified water body and is used as a planning tool in addressing water quality impairments and improving water quality.

Water bodies of the Calleguas Creek Watershed that have been listed under Section 303(d) as impaired are listed in Table 4.9-1 (2014-2016 approved 303(d) list).

Table 4.9-1 Impaired Waters of the Calleguas Creek Watershed in the Vicinity of the Project Site

Water Body	Water Quality Impairments
Mugu Lagoon (Calleguas Creek, Reach 1)	Chlordane, copper, DDT, dieldrin, endosulfan, mercury, nickel, nitrogen, PCBs, sediment toxicity, sedimentation/siltation, toxaphene, zinc
Calleguas Creek, Revolon Slough, Arroyo Simi, Arroyo Las Posas (Calleguas Creek Reaches 2-8)	Ammonia, Chem A, chlordane, copper, DDT, dieldrin, endosulfan, fecal coliform, nitrogen, PCBs, sediment toxicity, siltation, toxaphene, trash, chloride, nitrate and nitrite, total dissolved solids, chlorpyrifos, diazinon, selenium, toxicity, sulfates, boron, indicator bacteria, organophosphorus pesticides

Source: SWRCB 2016

PCBs: polychlorinated biphenyls

Clean Water Act Section 404

Under Section 404 of the CWA, proposed discharges of dredged or fill material into waters of the U.S. require USACE authorization. Waters of the U.S. generally include tidal waters, lakes, ponds, rivers, streams (including intermittent streams), and wetlands (with the exception of isolated wetlands). The USACE identifies wetlands using a multi-parameter approach, which requires positive wetland indicators in three distinct environmental categories: hydrology, soils, and vegetation. According to the USACE (1987) Wetlands Delineation Manual, except in certain situations, all three parameters must be satisfied for an area to be considered a jurisdictional wetland. Applications for CWA Section 404 permits must show the applicant has:

- Taken steps to avoid impacts to wetlands or waters of the U.S. where practicable;
- Minimized unavoidable impacts on waters of the U.S. and wetlands; and
- Provided mitigation for unavoidable impacts.

State Regulations

Clean Water Act Section 401

Under Section 401 of the CWA, the State RWQCBs have regulatory authority over actions in waters of the U.S. and the State of California through the issuance of water quality certifications, which are issued in conjunction with any federal permit (i.e., the federal permit will not be issued unless and until the State issues the required water quality certification). Some of the major federal licenses and permits subject to Section 401 include CWA Section 402 (described below) and CWA Section 404 (described above) permits issued by the USACE. Section 401 of the CWA provides the SWRCB (and the RWQCBs) with the regulatory authority to waive, certify, or deny any proposed activity that could result in a discharge to surface waters. To waive or certify an activity, the SWRCB and RWQCB must determine that the proposed discharge would comply with State water quality standards, including those protecting beneficial uses and water quality, as defined in the applicable Water Quality Control Plan(s) (described below, under *Porter-Cologne Water Quality Control Act*). If the SWRCB/RWQCB denies a proposed activity, the federal permit cannot be issued. As noted with respect to the CWA Section 404, a CWA Section 401 water quality certification is required for projects involving the discharge of dredge or fill material to wetlands or other bodies. Jurisdictional streambeds and associated riparian habitat are also regulated by the California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code.

Clean Water Act Section 402: National Pollutant Discharge Elimination System

In 1987, amendments to the CWA added Section 402, which established the National Pollutant Discharge Elimination System (NPDES) program. This is a framework to protect water quality by regulating industrial, municipal, and construction-related sources of pollutant discharges to waters. In accordance with Section 402, the CWA prohibits discharges of stormwater from construction projects unless the discharge is in compliance with an NPDES permit.

In California, the NPDES program is administered by the SWRCB through the nine RWQCBs. The SWRCB has adopted an NPDES *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (*Construction General Permit*) (Order 2009-0009, as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). Compliance with the *Construction General Permit* is required for projects that result in more than one acre of ground disturbance, including through clearing, grading, grubbing, excavating, stockpiling, and removing or replacing existing facilities. The *Construction General Permit* requires the landowner and/or contractor to file permit registration documents prior to commencing construction and pay a fee annually throughout the duration of construction. These documents include a notice of intent, risk assessment, site map, stormwater pollution prevention plan (SWPPP), and signed certification statement. The *Construction General Permit* specifies minimum Best Management Practice (BMP) requirements for stormwater control based on the risk level of the site. The SWPPP must include measures to ensure the following:

- All pollutants and their sources are controlled;
- Non-stormwater discharges are identified and eliminated, controlled, or treated;

- Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges; and
- BMPs installed to reduce or eliminate pollutants post-construction are completed and maintained.

The proposed project would be subject to the NPDES *Construction General Permit* and would require development and implementation of a SWPPP for project construction.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code) is the primary statute addressing surface water quality in California. Under Porter-Cologne, the SWRCB has the ultimate authority over the State's water quality policy. The SWRCB administers surface water rights, water pollution control, and water quality functions throughout the state, while the nine RWQCBs conduct planning, permitting, and enforcement activities. The RWQCBs also regulate water quality under Porter-Cologne through the regulatory standards and objectives set forth in Water Quality Control Plans (also referred to as "Basin Plans") prepared for each region.

The project is located in the jurisdiction of the Los Angeles RWQCB, which includes coastal drainages from Rincon Point (western boundary of Ventura County) to the eastern Los Angeles County boundary. Per the requirements of the CWA and the California Porter-Cologne Act, the Los Angeles RWQCB has prepared a Water Quality Control Plan (Basin Plan) for the watersheds under its jurisdiction, also referred to as the "Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties." The Basin Plans from all nine of the RWQCBs and the California Ocean Plan (prepared and implemented by SWRCB) collectively constitute the State Water Quality Control Plan.

The Los Angeles RWQCB Basin Plan has been designed to support the intentions of the CWA and the Porter-Cologne Act by: (1) characterizing watersheds within the Los Angeles Region; (2) identifying beneficial uses that exist or have the potential to exist in each water body; (3) establishing water quality objectives for each water body to protect beneficial uses or allow their restoration, and; (4) providing an implementation program that achieves water quality objectives. Implementation program measures include monitoring, permitting, and enforcement activities. Per the requirements of CWA Section 303(c), the Basin Plan is reviewed every three years and revised as necessary to update the plan and meet new legislative requirements.

The Basin Plan identifies beneficial uses of surface water bodies within its jurisdiction, which are used to establish WQOs as discussed above for Section 303(d), and to set discharge prohibitions to protect water quality as discussed above for Section 404 (regulates discharges to waters of the U.S.) and Section 402 (establishes the NPDES program). Table 4.9-2 lists the beneficial uses of surface waters in the Calleguas Creek Watershed.

As previously discussed, regarding Section 303(d) of the CWA, WQOs are the limits or levels of pollutant constituents or the characteristics of a water body that are established by the Los Angeles RWQCB for the reasonable protection of beneficial uses of water. WQOs are numeric limits and narrative objectives designed to ensure that bodies of water in the state can support their designated beneficial uses. At concentrations equal to or greater than the numeric objectives, constituents (or pollutants) are considered to have impaired the beneficial uses of the state's water. In some cases, objectives are narrative (qualitative), rather than numerical.

Table 4.9-2 Beneficial Uses for Surface Waters of the Calleguas Creek Watershed

Water Body	Beneficial Uses
Mugu Lagoon	Navigation, water-contact recreation (potential), non-water contact recreation, commercial and sport fishing, estuarine habitat, marine habitat, wildlife habitat, preservation of biological habitats, rare, threatened or endangered species habitat, migration of aquatic organisms, spawning habitat, shellfish harvesting, wetland habitat
Calleguas Creek (Arroyo Simi, Arroyo Las Posas)	Municipal water supply (potential), industrial water supply, industrial process supply, agricultural supply, groundwater replenishment, water-contact recreation, non-water contact recreation, warm freshwater habitat, wildlife habitat, wetland habitat
Conejo Creek	Municipal water supply (potential), industrial water supply, industrial process supply, agricultural supply, groundwater replenishment, water-contact recreation, non-water contact recreation, warm freshwater habitat, wildlife habitat
Arroyo Conejo	Municipal water supply (potential), groundwater replenishment (intermittent), freshwater replenishment (intermittent), water-contact recreation (intermittent), non-water contact recreation (intermittent), warm freshwater habitat (intermittent), wildlife habitat

Source: Los Angeles RWQCB 2020

Policy for Water Quality Control for Recycled Water (Recycled Water Policy)

The purpose of the Recycled Water Policy (SWRCB 2018) is to increase the use of recycled water from municipal wastewater sources meeting the definition in California Water Code Section 13050(n) in a manner that implements state and federal water quality laws. The Recycled Water Policy provides goals for recycled water use in California, guidance for use of recycled water that considers protection of water quality, criteria for streamlined permitting of recycled water projects, and requirements for monitoring recycled water for constituents of emerging concern.

The Recycled Water Policy was adopted in 2009, amended in 2013, and amended again in 2018. The 2018 amendment included the following:

1. Removal of statewide recycled water mandates;
2. Addition of narrative goals for the production and use of recycled water;
3. Establishment of treated wastewater and recycled water reporting requirements statewide;
4. Clarification of the process for recycled water project proponents to comply with California Water Code Section 1211 for wastewater change petitions;
5. Updates to requirements for salt and nutrient management planning;
6. Improvement of consistency in permitting of recycled water projects by encouraging the use of statewide water reclamation requirements for non-potable recycled water use, removing streamlined permitting criteria for landscape irrigation recycled water projects, and adding permitting guidance for reservoir augmentation projects;
7. Updates to monitoring requirements for constituents of emerging concern in recycled water used for groundwater recharge and reservoir water augmentation, and
8. Incorporation of other substantive and non-substantive changes.

The proposed project incorporates recycled water and is subject to compliance with the State's Recycled Water Policy.

California Code of Regulations Water Recycling Criteria

California Code of Regulations Title 22, Division 4, *Environmental Health*, Chapters 1 through 3 outline California's health laws related to recycled water. The intent of these regulations is to ensure protection of public health associated with the use of recycled water. The regulations establish acceptable levels of constituents in recycled water for a range of uses and assurance of reliability in the production of recycled water.

Local Regulations

Ventura County Municipal Separate Storm Sewer System (MS4) Permit

Polluted stormwater runoff commonly flows through municipal separate storm sewer systems (MS4s) and discharged into local water bodies. To prevent harmful pollutants from flowing or being dumped into MS4s, certain operators are required to obtain NPDES permits and develop stormwater management programs. Ventura County has an MS4 Permit (NPDES No. CAS004002) that applies to the unincorporated areas of Ventura County and the Ventura County Watershed Protection District. In accordance with the Ventura County MS4 Permit, all new development projects equal to one acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area are required to control pollutants, pollutant loads, and runoff volume emanating from impervious surfaces through infiltration, storage for reuse, evapotranspiration, or bioretention/ biofiltration.

The Ventura County Stormwater Program implements the Ventura County MS4 Permit through review of proposed land development projects for compliance with water quality requirements. The Ventura County Stormwater Program's review process generally focuses on the following areas:

- Post-construction impact of new development and redevelopment projects on stormwater runoff;
- Construction, demolition, or soil disturbance impact on stormwater runoff;
- Proposed land use impact on surface water quality;
- Compliance with the County General Plan and Area Plans as related to surface water and stormwater quality;
- Potential impact of stormwater discharge from material storage areas, vehicle or equipment fueling areas, vehicle or equipment maintenance (including washing) areas, waste handling areas, hazardous materials handling or storage areas, delivery areas or loading docks, or other outdoor work areas;
- Potential of stormwater discharge to impair the beneficial uses of the receiving waters;
- Potential impact of stormwater discharge to cause significant harm on the biological integrity of the waterways and waterbodies;
- Potential for significant changes in the flow velocity or volume of storm water runoff to cause harm to or impair the beneficial uses of natural drainage systems; and
- Potential for significant increases in erosion at the project site or surrounding areas (County 2020b).

Ventura County Stormwater Quality Management Ordinance for Unincorporated Areas

Code No. 4450 protects the stormwater quality in the County's unincorporated area. The ordinance requires new development projects to submit a Post-Construction Stormwater Management Plan

(PCSMP) to the County, demonstrating how post-construction stormwater runoff control measures will be implemented. This ordinance supplements implementation of the Ventura County MS4 Permit.

Ventura County General Plan

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goals 1.3.1-1 through 1.3.1-3 and 1.3.1-6 and Policies 1.3.2-1, 1.3.2-2, 1.3.2-4, 1.3.2-6, and 1.3.2-10 pertain to surface water quality. However, Policies 1.3.2-6 and 1.3.2-10 are not applicable to the proposed project as those policies pertain to use of Santa Clara River and new golf courses, respectively.

- **Goals**
  - **1.3.1-1.** Inventory and monitor the quantity and quality of the County's water resources.
  - **1.3.1-2.** Effectively manage the water resources of the County by adequately planning for the development, conservation, and protection of water resources for present and future generations.
  - **1.3.1-3.** Maintain and, where feasible, restore the chemical, physical, and biological integrity of surface and groundwater resources.
  - **1.3.1-6.** Promote reclamation and reuse of wastewater for recreation, irrigation and to recharge aquifers.
- **Policies**
  - **1.3.2-1.** Discretionary development which is inconsistent with the goals and policies of the County's Water Management Plan (WMP) shall be prohibited, unless overriding considerations are cited by the decision-making body.
  - **1.3.2-2**. Discretionary development shall comply with all applicable County and State water regulations.
  - **1.3.2-4**. Discretionary development shall not significantly impact the quantity or quality of water resources within watersheds, groundwater recharge areas, or groundwater basins.

4.9.2 Impact Analysis

4.9.2.1 Significance Thresholds

Per the Initial Study Assessment Guidelines (County 2011), impacts related to surface water quality would be potentially significant if the proposed project would:

1. Individually or cumulatively degrade the quality of surface water, causing it to exceed water quality objectives as contained in Chapter 3 of the three Basin Plans.
2. Directly or indirectly cause storm water quality to exceed water quality objectives or standards in the applicable MS4 Permit or any other NPDES Permits.
3. Be inconsistent with the applicable General Plan Goals and Policies for "Water Resources – Surface Water Quality" in the County's Initial Study Assessment Guidelines.

4.9.2.2 Project Impacts and Mitigation Measures

Threshold 1:	Would the project individually or cumulatively degrade the quality of surface water causing it to exceed water quality objectives as contained in Chapter 3 of the three Basin Plans?
Threshold 2:	Would the project directly or indirectly cause storm water quality to exceed water quality objectives or standards in the applicable MS4 Permit or any other NPDES Permits?

IMPACT WQ-1 CONSTRUCTION AND OPERATION OF THE PROPOSED PROJECT WOULD INCREASE CONTAMINANTS IN STORMWATER RUNOFF DUE TO GROUND DISTURBANCE AND CHANGES IN GROUND COVER. HOWEVER, WITH REGULATORY COMPLIANCE, PROJECT IMPACTS TO SURFACE WATER QUALITY FROM CONSTRUCTION AND OPERATION OF THE PROJECT WOULD BE LESS THAN SIGNIFICANT.

Construction

As stormwater flows over a construction site, it can pick up sediment, debris, and chemicals, and transport them to receiving water bodies. Temporary site preparation, grading, and building construction activities associated with the project may result in soil erosion. If precautions are not taken to contain contaminants, construction activities could result in contaminated stormwater runoff entering nearby surface waters including the nearby Arroyo Las Posas. Construction activities could also affect water quality in the event of an accidental fuel or hazardous materials leak or spill.

The project site is located in unincorporated Ventura County. The project is therefore subject to the Ventura County MS4 Permit (NPDES No. CAS004002), which provides compliance with the *California State Construction General Permit* (Order No. 2009-2009-DWQ). Under the conditions of the permit, the project applicant would be required to eliminate or reduce non-stormwater discharges to waters of the U.S., develop and implement a SWPPP for project construction activities, and perform inspections of the stormwater pollution prevention measures and control practices to ensure conformance with the site SWPPP. As required by the Ventura County Stormwater Program, which implements the Ventura County MS4 Permit, the project would implement BMPs to prohibit the entry of pollutants from the construction site into the storm drain system during construction. The project would develop approximately 18.4 acres of the project site. Therefore, the project would be required to implement BMPs for construction sites greater than five acres in size, as identified in Table 8 of the MS4 Permit. BMPs would include sediment controls such as construction of a temporary sediment basin and control dam; a stabilized construction entrance/exit; material delivery and storage BMPs; spill prevention and control; concrete waste management; and sanitary/septic waste management.

In addition, the MS4 permit prohibits the discharge of materials other than stormwater and prohibits all discharges that contain a hazardous substance in excess of reportable quantities established at 40 Code of Federal Regulations (CFR) 117.3 or 40 CFR 302.4. The state permit also specifies that construction activities must meet applicable provisions of Sections 30 and 402 of the CWA. Conformance with Section 402 of the CWA would ensure that the project would not violate any water quality standards or waste discharge requirements. Similarly, compliance with construction-related BMPs and/or the SWPPP would control and minimize erosion and siltation.

With regulatory compliance, temporary construction-related impacts to water quality objectives contained in Chapter 3 of the Los Angeles Basin Plan and the County's MS4 Permit would be less than significant.

Operation

The portion of the project site that would be developed under the proposed project is unpaved and currently in agricultural production. As described in detail in Section 2, *Project Description*, the proposed housing complex would be constructed in three phases. The CWWTF would be constructed as part of Phase 1 and would be expanded to accommodate the needs of the housing complex as additional apartments are constructed and occupied during Phases 2 and 3.

Implementation of the proposed project would increase impervious surface area on the site by approximately 469,000 square feet, which would increase the volume of stormwater runoff across the project site. The housing complex would be surrounded by a 29-foot-wide landscaped area along the western and eastern perimeters, which would serve as a buffer between the proposed housing complex and existing surrounding agricultural operations. The housing complex would include landscaped areas throughout totaling approximately 281,000 square feet.

As discussed in the Preliminary Hydrology Memo (Appendix I), the project would include two stormwater detention basins and stormwater biofiltration devices to capture stormwater runoff. The proposed detention basins are mapped in the Hydrology Exhibit in Appendix I. Stormwater detention basins are typically placed strategically to slow the movement of stormwater runoff across a site and control the rate and quality of stormwater runoff exiting a project site. Runoff from the area in Phase 1 and the western portions of Phases 2 and 3 would be directed toward a stormwater detention basin on the east side of the site. The remaining runoff from Phases 2 and 3 would be directed to a second detention basin on the east side of the site. Outflow from the basins would be released into the existing drainage channel along the west side of the site via storm drain diversion structures and channels. The project's detention basins would reduce post-construction peak runoff flows to current peak runoff flows (Jensen 2019). In addition, the 281,000 square feet of landscaped areas would infiltrate stormwater runoff and roof discharges.

On-site infiltration tests performed at the project site demonstrate that the infiltration rate is poor. Due to the poor infiltration rates, the Preliminary Hydrology Memo concludes that it would be infeasible to use infiltration methods to meet the County's MS4 requirements pertaining to stormwater runoff quality. Therefore, the proposed project would include stormwater biofiltration devices to treat stormwater runoff before it leaves the project site (Jensen 2019). Biofiltration systems operate by filtering diverted runoff through dense vegetation, followed by vertical filtration through physical filters. Specifically, the proposed project would install the Modular Wetlands system from Bio Clean, which is designed to remove pollutants through a combination of physical, chemical, and biological filtration processes. Trash, sediment, and debris are separated before entering the pre-filter boxes. The filtration system removes pollutants such as total dissolved solids (TDS), heavy metals, nutrients, hydrocarbons, and bacteria from diverted stormwater runoff, which is then directed into the storm drain system (Bio Clean 2020). The biofiltration system installed with the proposed project would remove pollutants from stormwater runoff before it enters the storm drain system and would protect surface water quality off-site.

As required by the Ventura County MS4 Permit, the project applicant would submit a PCSMP to the County illustrating the post-construction stormwater control measures and BMPs implemented on-site. The PCSMP would include a maintenance plan in accordance with requirements of the *Ventura County Technical Guidance Manual for Stormwater Quality Control Measures*.

Based on the above, operation of the project would not directly or indirectly cause storm water quality to exceed water quality objectives or standards in the applicable MS4 Permit and impacts to surface water quality would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 1:	Would the project individually or cumulatively degrade the quality of surface water causing it to exceed water quality objectives as contained in Chapter 3 of the three Basin Plans?
Threshold 2:	Would the project directly or indirectly cause storm water quality to exceed water quality objectives or standards in the applicable MS4 Permit or any other NPDES Permits?

IMPACT WQ-2 RECYCLED WATER WOULD BE PRODUCED AT THE CWWTF AND BLENDED WITH LOCAL GROUNDWATER SUPPLIES FOR AGRICULTURAL IRRIGATION USES. THE INCORPORATION OF RECYCLED WATER INTO THE AREA'S EXISTING AGRICULTURAL IRRIGATION USES WOULD RESULT IN IMPROVED QUALITY OF THE APPLIED IRRIGATION WATER, WHICH WOULD RESULT IN IMPROVED SURFACE WATER QUALITY IN THE AREA. WITH REGULATORY COMPLIANCE, THE PROJECT'S IMPACTS TO SURFACE WATER QUALITY WOULD BE LESS THAN SIGNIFICANT.

Because the project site is outside the Camarillo Sanitary District service area, the project includes on-site wastewater treatment. The housing complex would include the construction and operation of a CWWTF on an approximately 5,000- to 7,000-square-foot area in the northwest corner of the project site. The on-site CWWTF would treat all wastewater generated by the housing complex. The CWWTF's treatment processes are detailed in Section 2, *Project Description*.

The CWWTF would be designed to treat wastewater generated on-site to meet Disinfected Tertiary Recycled Water requirements in accordance with California Code of Regulations (CCR) Title 22. Recycled water produced at the CWWTF would be beneficially reused for off-site agricultural irrigation. Currently, the adjacent orchards are irrigated with relatively low-quality groundwater pumped from a private well. If the proposed project is approved and built, higher-quality recycled water generated by the CWWTF would be blended with pumped groundwater to improve the quality of agricultural irrigation water (WREA 2019).

Excess recycled water and treated wastewater effluent not meeting recycled water quality standards would be dispersed through a series of underground seepage pits on the westerly side of the project site (WREA 2019). As discussed in Appendix G, in September 2019, seepage pit field tests were performed to calculate potential percolation rates on the project site. The study confirmed the feasibility of seepage pit performance for excess effluent from the CWWTF (Earth Systems Pacific 2019). The CWWTF's seepage pits would be located entirely underground, and would not be hydrologically connected to nearby surface waters. Consequently, the seepage pits would not adversely affect surface water quality.

As required by CCR Titles 17 and 22, the Health and Safety Code and Water Code, the proposed CWWTF would require an Engineering Report (i.e., a Title 22 Report) for "Production, Distribution and Use of Recycled Water" to the SWRCB for review and approval. The County's Building and Safety Division also has approval authority over the CWWTF and the Los Angeles RWQCB would regulate the operation of the facility. As required by water discharge requirements and water

reclamation requirements, constituents (pollutants) in the recycled water would be tested daily, weekly, and/or monthly to ensure the discharge is meeting the TMDLs for pollutants established under the CWA to protect the beneficial uses of receiving waters.

The Basin Plan includes WQOs for surface waters related to beneficial uses (Los Angeles RWQCB 2020). Beneficial uses for water in the project area are identified in Table 4.9-2. The project would comply with applicable regulations and implement BMPs to protect surface water quality and minimize impacts to beneficial uses of surface waters. For instance, the Basin Plan establishes maximum nitrogen concentrations of less than 10 milligrams per liter in discharged water, and the proposed CWWTF would use an extended aeration method with full tertiary treatment and disinfection to produce recycled water with nitrogen concentrations of less than ten milligrams per liter.

The proposed project's CWWTF would satisfy Basin Plan requirements and would not degrade surface water quality causing it to exceed WQOs as contained in Chapter 3 of the Basin Plan. Consequently, the proposed project would not conflict with or obstruct implementation of the Basin Plan, and impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 3:	Would the project be inconsistent with the applicable General Plan Goals and Policies for "Water Resources – Surface Water Quality" in the County's Initial Study Assessment Guidelines?

IMPACT WQ-3 THE PROJECT WOULD BE CONSISTENT WITH THE APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would be consistent with the County General Plan goals and policies listed previously under Regulatory Setting. The project's consistency is analyzed in detail in Section 4.10, *Land Use and Planning*. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

4.9.2.3 Cumulative Impacts

The geographic scope for cumulative hydrology and water quality impacts is the Somis portion of the Calleguas Creek Watershed. In this area, water generally flows from east to west and downhill towards the Pacific Ocean. This geographic scope is appropriate for surface water quality because water quality impacts are localized and specific to the watershed in which the impact occurs. Cumulative development within this geographic scope includes the cumulative projects summarized in Table 3-1, all of which would be located in the Calleguas Creek Watershed.

Cumulative development would generally increase impermeable surface area in the Calleguas Creek Watersheds. Development would potentially increase pollutants in regional stormwater flows. However, cumulative development would also be required to adhere to all applicable state and local regulations designed to control erosion and protect water quality, including the NPDES *Construction General Permit*. All construction sites larger than one acre in size would require a SWPPP with BMPs, thereby reducing the risk of water degradation on- and off-site from soil erosion and other

pollutants. In addition, the County of Ventura's post-construction requirements for stormwater management would reduce the quantity of stormwater runoff that enters the storm drainage system and discharges to the Pacific Ocean from project sites in unincorporated Ventura County and the City of Camarillo.

Based on the above, cumulative impacts would be less than significant. Consequently, the proposed project would not have a cumulatively considerable contribution to a significant cumulative impact related to surface water quality.

4.10 Land Use and Planning

This section assesses potential land use consistency impacts associated with the proposed project, specifically in relation to the Ventura County General Plan's goals and policies and the County's Save Open Space and Agricultural Resources (SOAR) Ordinance.

4.10.1 Setting

4.10.1.1 Project Site

The project site is currently used for agricultural production, with ancillary residences and agricultural buildings located immediately south of Bell Ranch Road. The project site has a General Plan land use designation of Agricultural and a zoning designation of Agricultural Exclusive (AE). Uses permitted in the AE zone seek to preserve and protect agriculture and commercial agriculture uses. Farmworker housing is an allowed use in the AE zone pursuant to Section 8103-2.7 of the Ventura County Ordinance Code.

4.10.1.2 Regulatory Setting

Air Quality

Ventura County General Plan – Goals, Policies, Programs

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goals 1.2.1-1 and 1.2.1-2 and Policies 1.2.2-1 through 1.2.2-3 and 1.2.2-5 pertain to air quality.

- **Goals**
  - **1.2.1-1.** Diligently seek and promote a level of air quality that protects public health, safety, and welfare, and seek to attain and maintain the State and Federal Ambient Air Quality standards.
  - **1.2.1-2.** Ensure that any adverse air quality impacts, both long-term and short-term, resulting from discretionary development are mitigated the maximum extent feasible.
- **Policies**
  - **1.2.2-1.** Discretionary development that is inconsistent with the Air Quality Management Plan (AQMP) shall be prohibited, unless overriding considerations are cited by the decision-making body.
  - **1.2.2-2.** The air quality impacts of discretionary development shall be evaluated by use of the Guidelines for the Preparation of Air Quality Impact Analysis.
  - **1.2.2-3.** Discretionary development that would have a significant adverse air quality impact shall only be approved if it is conditioned with all reasonable mitigation measures to avoid, minimize, or compensate (offset) for the air quality impact. Developers shall be encouraged to employ innovative methods and technologies to minimize air pollution impacts.
  - **1.2.2-5.** Development subject to APCD permit authority shall comply with all applicable APCD rules and permit requirements, including the use of best available control technology (BACT) as determined by the APCD.

Draft Ventura County 2040 General Plan

Additionally, several Elements of the Draft Ventura County 2040 General Plan recognize the importance of achieving regional air quality objectives. The Draft Plan includes the following additional policies related to air quality:

CIRCULATION, TRANSPORTATION, AND MOBILITY ELEMENT

- **Policy CTM-2.11: Efficient Land Use Patterns.** The County shall establish land use patterns that promote shorter travel distances between residences, employment centers, and retail and service-oriented uses to support the use of public transportation, walking, bicycling, and other forms of transportation that reduce reliance on single-passenger automobile trips.
- **Policy CTM-4.1: Reduce VMT.** The County shall work with Caltrans and VCTC to reduce VMT by:
  - facilitating the efficient use of existing transportation facilities,
  - striving to provide viable modal choices that make driving alone an option rather than a necessity,
  - supporting variable work schedules to reduce peak period VMT, and
  - providing more direct routes for pedestrians and bicyclists
- **Policy CTM-4.2: Alternative Transportation.** The County shall encourage bicycling, walking, public transportation, and other forms of alternative transportation to reduce VMT, traffic congestion, and greenhouse gas emissions.
- **Policy CTM-6.1: Routine Use of Alternative Transportation Options.** The County shall support the integration of emerging technologies that increase the routine use of alternative transportation options to decrease single-passenger automobile travel.

PUBLIC FACILITIES, SERVICES, AND INFRASTRUCTURE ELEMENT

- **Policy PFS-2.5: County Employee Trip Reduction.** The County shall encourage its employees to reduce the number and distance of single-occupancy vehicle work trips.
- **Policy PFS-2.6: County Alternative Fuel Vehicle Purchases.** The County shall review market-available technologies for alternative fuel vehicles and prioritize purchase of vehicles to reduce greenhouse gas emissions where economically feasible.

HAZARDS AND SAFETY ELEMENT

- **Policy HAZ-10.1: Air Pollutant Reduction.** The County shall strive to reduce air pollutant from stationary and mobile sources to protect human health and welfare, focusing efforts on shifting patterns and practices that contribute to the areas with the highest pollution exposures and health impacts.
- **Policy HAZ-10.2: Air Quality Management Plan Consistency.** The County shall prohibit discretionary development that is inconsistent with the most recent adopted AQMP, unless the Board of Supervisors adopts a statement of overriding considerations.
- **Policy HAZ-10.3: Air Pollution Control District Rule and Permit Compliance.** The County shall ensure that discretionary development subject to VCAPCD permit authority complies with all applicable APCD rules and permit requirements, including the use of Best Available Control Technology (BACT) as determined by the VCAPCD.

- **Policy HAZ-10.4: Engagement with Air Quality Management Plan.** When the VCAPCD updates the AQMP, the County shall actively engage continuously and throughout the process.
- **Policy HAZ-10.5: Air Pollution Impact Mitigation Measures for Discretionary Development.** The County shall work with applicants for discretionary development projects to incorporate bike facilities, solar water heating, solar space heating, incorporation of electric appliances and equipment, and the use of zero and/or near zero emission vehicles and other measures to reduce air pollution impacts and reduce greenhouse gas emissions.
- **Policy HAZ-10.6: Transportation Control Measures Programs.** The County shall continue to work with the VCAPCD and VCTC to develop and implement Transportation Control Measures (TCM) programs consistent with the AQMP to facilitate public transit and alternative transportation modes within the county.
- **Policy HAZ-10.7: Fuel Efficient County Vehicles.** When purchasing new County vehicles, the County shall give strong preference to fuel efficient vehicles, include the use of zero emission vehicles when feasible.
- **Policy HAZ-10.8: Alternative Transportation Modes.** The County shall promote alternative modes of transportation that reduce single-occupancy vehicle (SOV) travel and enhance "last-mile" transportation options to improve air quality.
- **Policy HAZ-10.9: Mitigation of Objectionable Odors.** The County shall require that discretionary development which will create objectionable odors that could affect a substantial number of people are appropriately mitigated. The project, pursuant to state law, shall be required to operate in accordance with the Rules and Regulations of the VCAPCD, with emphasis on Rule 51, Nuisance throughout the life of the permit.
- **Policy HAZ-10.11: Air Quality Assessment Guidelines.** In evaluating air quality impacts, the County shall consider total emissions from both stationary and mobile sources, as required by the California Environmental Quality Act. The County shall evaluate discretionary development for air quality impacts using the Air Quality Assessment Guidelines as adopted by the Ventura County Air Pollution Control District (APCD), except that emissions from APCD-permitted sources shall also be included in the analysis. The County shall revise the Initial Study Assessment Guidelines to implement this policy.
- **Policy HAZ-10.12: Conditions for Air Quality Impacts.** The County shall require that discretionary development that would have a significant adverse air quality impact shall only be approved if it is conditioned with all reasonable mitigation measures to avoid, minimize or compensate (offset) for the air quality impact. The use of innovative methods and technologies to minimize air pollution impact shall be encouraged in project design.

Agricultural Resources – Soils

Ventura County General Plan – Goals, Policies, Programs

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goal 1.6.1-1 and Policies 1.6.2-1 and 1.6.2-6 pertain to agricultural soils.

- **Goals**
  - **1.6.1-1.** Preserve and protect agricultural lands as a nonrenewable resource to assure the continued availability of such lands for the production of food, fiber, and ornamentals.

- **Policies**
  - **1.6.2-1.** Discretionary development located on land designated as Agricultural and identified as Prime Farmland or Farmland of Statewide Importance on the State's Important Farmland Inventory shall be planned and designed to remove as little land as possible from potential agricultural production and to minimize impacts on topsoil.
  - **1.6.2-6.** Discretionary development adjacent to Agricultural-designated lands shall not conflict with agricultural use of those lands.

SOAR Ordinance

The County's Ventura County Save Open space and Agricultural Resources (SOAR) Ordinance was initially adopted by the County Board of Supervisors in 1998. The SOAR Ordinance requires a majority vote by residents for development of land currently designated as Open Space, Agricultural, or Rural in the County General Plan. The project site is designated Agricultural in the County General Plan. In 2016, two new sections were added to SOAR to assist the agricultural industry by providing exemptions from a vote of the people for farmworker housing and processing of locally grown food. Further exemptions exist for affordable housing projects.

Additionally, the Ventura County Non-Coastal Zoning Ordinance (NCZO) allows for the development of farmworker housing complexes on parcels smaller than the prescribed minimum lot area on land zoned AE within or adjacent to a city Sphere of Influence, provided the remaining non-farmworker housing complex parcel is a minimum of 10 acres (Ventura County NCZO Section 8103-2.7). The project would include the continuation of agricultural use on a 17.93-acre continued agricultural use parcel on a project site zoned AE that is adjacent to the City of Camarillo (and its Sphere of Influence).

Biological Resources

Ventura County General Plan – Goals, Policies, Programs

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goal 1.5.1 and Policies 1.5.2-1 through 1.5.2-6 pertain to biological resources.

- **Goals**
  - **1.5.1.** Identify, preserve, and protect significant biological resources in Ventura County from incompatible land uses and development. Significant biological resources include endangered, threatened or rare species and their habitats, wetland habitats, coastal habitats, wildlife migration corridors that facilitate habitat connectivity and wildlife movement, and locally important species/communities.
- **Policies**
  - **1.5.2-1.** Discretionary development which could potentially impact biological resources shall be evaluated by a qualified biologist to assess impacts and, if necessary, develop mitigation measures.
  - **1.5.2-2.** Discretionary development shall be sited and designed to incorporate all feasible measures to mitigate any significant impacts to biological resources. If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.
  - **1.5.2-3.** Discretionary development that is proposed to be located within 300 feet of a marsh, small wash, intermittent lake, intermittent stream, spring, or perennial stream (as

identified on the latest USGS 7.5-minute quad map), shall be evaluated by a County approved biologist for potential impacts on wetland habitats. Discretionary development that would have a significant impact on significant wetland habitats shall be prohibited, unless mitigation measures are adopted that would reduce the impact to a less than significant level; or for lands designated "Urban" or "Existing Community," a statement of overriding considerations is adopted by the decision-making body.

- **1.5.2-4.** Discretionary development shall be sited a minimum of 100 feet from significant wetland habitats to mitigate the potential impacts on said habitats. Buffer areas may be increased or decreased upon evaluation and recommendation by a qualified biologist and approval by the decision-making body. Factors to be used in determining adjustment of the 100-foot buffer include soil type, slope stability, drainage patterns, presence or absence of endangered, threatened or rare plants or animals, and compatibility of the proposed development with the wildlife use of the wetland habitat area. The requirement of a buffer (setback) shall not preclude the use of replacement as a mitigation when there is no other feasible alternative to allowing a permitted use, and if the replacement results in no net loss of wetland habitat. Such replacement shall be "in kind" (i.e. same type and acreage), and provide wetland habitat of comparable biological value. On-site replacement shall be preferred wherever possible. The replacement plan shall be developed in consultation with California Department of Fish and Game.
- **1.5.2-5.** The California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, National Audubon Society, and the California Native Plant Society shall be consulted when discretionary development may affect significant biological resources. The National Park Service shall also be consulted regarding discretionary development within the Santa Monica Mountains or Oak Park Area.
- **1.5.2-6.** Based on the review and recommendation of a qualified biologist, the design and maintenance of road and floodplain improvements, including culverts and bridges shall incorporate all feasible measures to accommodate wildlife passage.

Cultural Resources – Historic

Ventura County General Plan – Goals, Policies, Programs

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goal 1.6.1-1 and Policies 1.6.2-1 and 1.6.2-6 pertain to historic resources.

- **Goals**
  - **1.8.1-1.** Identify, inventory, preserve, and protect the paleontological and cultural resources of Ventura County (including archaeological, historical, and Native American resources) for their scientific, educational, and cultural value.
  - **1.8.1-1.** Enhance cooperation with cities, special districts, other appropriate organizations, and private landowners in acknowledging and preserving the County's paleontological and cultural resources.
- **Policies**
  - **1.8.2-1.** Discretionary developments shall be assessed for potential paleontological and cultural resource impacts, except when exempt from such requirements by CEQA. Such assessments shall be incorporated into a Countywide paleontological and cultural resource data base.

- **1.8.2-2.** Discretionary development shall be designed or re-designed to avoid potential impacts to significant paleontological or cultural resources whenever possible. Unavoidable impacts, whenever possible, shall be reduced to a less than significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical or paleontological consultants, depending on the type of resource in question.
- **1.8.2-3.** Mitigation of significant impacts on cultural or paleontological resources shall follow the Guidelines of the State Office of Historic Preservation, the State Native American Heritage Commission, and shall be performed in consultation with professionals in their respective areas of expertise.
- **1.8.2-4.** Confidentiality regarding locations of archaeological sites throughout the County shall be maintained in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.
- **1.8.2-5.** During environmental review of discretionary development, the reviewing agency shall be responsible for identifying sites having potential archaeological, architectural or historical significance and this information shall be provided to the County Cultural Heritage Board for evaluation.
- **1.8.2-6.** The Building and Safety Division shall utilize the State Historic Building Code for preserving historic sites in the County.

Noise and Vibration

Ventura County General Plan – Goals, Policies, Programs

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goal 2.16.1 and Policies 2.16.2-1 through 2.16.2-3 pertain to noise and vibration.

- **Goals**
  - **2.16.1.** To protect the health, safety, and general welfare of County residents by elimination or avoidance of adverse noise impacts on existing and future noise sensitive uses.
- **Policies**
  - **2.16.2-1.** All discretionary development shall be reviewed for noise compatibility with surrounding uses. Noise compatibility shall be determined from a consistent set of criteria based on the standards listed below. An acoustical analysis by a qualified acoustical engineer shall be required of discretionary developments involving noise exposure or noise generation in excess of the established standards. The analysis shall provide documentation of existing and projected noise levels at on-site and off-site receptors, and shall recommend noise control measures for mitigating adverse impacts.
  - **2.16.2-2.** Discretionary development which would be impacted by noise, or generate project related noise which cannot be reduced to meet the standards prescribed in Policy 2.16.2-1, shall be prohibited. This policy does not apply to noise generated during the construction phase of a project.
  - **2.16.2-3.** The priorities for noise control shall be as follows:
    - Reduction of noise emissions at the source.
    - Attenuation of sound transmission along its path, using barriers, landforms modification, dense plantings, and the like.

- Rejection of noise at the reception point via noise control building construction, hearing protection or other means.

Public Health

Ventura County General Plan – Goals, Policies, Programs

The following Ventura County General Plan goals and policies are related to public health.

- **Goals**
  - **4.4.1-1.** Ensure the provision of adequate individual and public sewage/waste collection, treatment, and disposal facilities to meet the County's current and future needs in a manner which will protect the natural environment and ensure protection of the public's health, safety, and welfare.
- **Policies**
  - **4.4.2-1.** Community sewage treatment facilities and solid waste disposal sites shall be deemed consistent with the General Plan only if they are designated on the Public Facilities Map. On-site septic systems (i.e., individual sewage disposal systems), on-site wastewater treatment facilities, waste transfer stations, off-site waste treatment facilities, and on-site storage facilities are consistent with the General Plan if they conform to the goals, policies, and programs of the General Plan.
  - **4.4.2-2.** Any subdivision, or discretionary change in land use having a direct effect upon the volume of sewage, shall be required to connect to a public sewer system. Exceptions to this policy to allow the use of septic systems may be granted in accordance with County Sewer Policy. Installation and maintenance of septic systems shall be regulated by the County Environmental Health Division in accordance with the County's Sewer Policy, County Building Code, and County Service Area 32.
  - **4.4.2-3.** In order to reduce the need for additional wastewater treatment capacity, the County shall require new discretionary development to utilize water-conserving design features.
  - **4.4.2-5.** Waste treatment and disposal operations shall be designed and conducted in a manner that is compatible with surrounding land uses such that the potential impacts are mitigated to less than significant levels, or, where no feasible mitigation measures are available, a statement of overriding considerations consistent with CEQA shall be adopted. At the end of such operations, the site shall be restored to a use compatible with surrounding land uses.

Transportation

Draft Ventura County 2040 General Plan

The following policies from the Draft Ventura County 2040 General Plan Circulation, Transportation, and Mobility Element are applicable to the proposed project.

- **Policy CTM-1.1: Vehicle Miles Traveled (VMT) Standards and CEQA Evaluation.** The County shall require evaluation of County General Plan land use designation changes, zone changes, and discretionary development for their individual (i.e., project-specific) and cumulative transportation impacts based on Vehicle Miles Traveled (VMT) under the California

Environmental Quality Act (CEQA) pursuant to the methodology and thresholds of significance criteria set forth in the County Initial Study Assessment Guidelines.

- **Policy CTM-1.2: Projects with Significant Transportation Impacts.** County General Plan land use designation changes, zone changes, and discretionary development that would cause an individual (i.e., project-specific) or cumulative significant transportation impact based on Vehicle Miles Traveled (VMT) under the California Environmental Quality Act (CEQA) shall be prohibited unless:
  4. There are no feasible mitigation measures available that would reduce the impact to a less than significant level; and
  5. The County's decision-making body, after balancing, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of the project against its unavoidable transportation impact and any other environmental risks, determines that the benefits of the project outweigh the unavoidable adverse environmental impacts and adopt a statement of overriding considerations pursuant CEQA.
- **Policy CTM-1.3: County Level of Service (LOS) Standards.** The County shall maintain LOS standards for use as part of the County's transportation planning including the traffic impact mitigation fee program, and the County's review and consideration of proposed land use legislation and discretionary development. For purposes of County transportation planning and review and consideration of proposed land use legislation and discretionary development, the County shall use the following minimum acceptable Level of Service (LOS) for road segment and intersection design standards within the Regional Road Network and all other County-maintained roadways:
  g. LOS 'C' for all Federal functional classification of Minor Collector (MNC) and Local roadways (L); and
  h. LOS 'D' for all Federal functional classifications except MNC and L, and Federal and State highways in the unincorporated area, except as otherwise provided in subparagraph (c and d;
  i. LOS 'E' for State Route 33 between the northerly end of the Ojai Freeway and the city of Ojai, Santa Rosa Road, Moorpark Road north of Santa Rosa Road, State Route 34 north of the city of Camarillo, and State Route 118 between Santa Clara Avenue and the city of Moorpark;
  j. LOS 'F' for Wendy Drive between Borchard Drive to Lois Avenue; and
  k. The LOS prescribed by the applicable city for all federal highways, state highways, city thoroughfares and city-maintained local roads located within that city, if the city has formally adopted and is implementing a General Plan policy, ordinance, or a reciprocal agreement with the County regarding development in the city that is intended to improve the LOS of County-maintained local roads and federal and state highways located within the unincorporated area of the county.
  l. At any intersection between two or more roads, each of which has a prescribed minimum acceptable LOS, the lower LOS of the roads shall be the minimum acceptable LOS for that intersection.
- **Policy CTM-1.4: Level of Service (LOS) Evaluation.** County General Plan land use designation changes and zone changes shall be evaluated for their individual (i.e., project-specific) and cumulative effects, and discretionary developments shall be evaluated for their individual

effects, on Level of Service (LOS) on existing and future roads, to determine whether the project:

a. Would cause existing roads within the Regional Road Network or County-maintained roadways that are currently functioning at an acceptable LOS to function below an acceptable LOS;

b. Would add traffic to existing roads within the Regional Road Network or County-maintained roadways that are currently functioning below an acceptable LOS; and

c. Could cause future roads planned for addition to the Regional Road Network or County maintained roadways to function below an acceptable LOS.

d. The Level of Service (LOS) evaluation shall be conducted based on methods established by the County.

- **Policy CTM-1.5: Projects with Unacceptable Level of Service (LOS).**

1. County General Plan land use designation changes and zone changes that would cause any cumulative unacceptable LOS as determined pursuant to Policies CTM-1.3 and CTM-1.4 shall be prohibited unless the Board of Supervisors imposes all feasible conditions of approval to address all unacceptable LOS effects and, after balancing, as applicable, the project's economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, against the project's unacceptable LOS effects, determines that the benefits of the project outweigh the project's unacceptable LOS effects.
2. County General Plan land use designation changes, zone changes, and discretionary development that would individually (i.e., project-specific) cause an unacceptable LOS effect as determined pursuant to Policies CTM-1.3 and CTM-1.4 shall be prohibited unless the improvements to the roadway and intersections are included in the Public Works Agency, Transportation Department Strategic Master Plan with a funding mechanism identified and the project is conditioned on the payment of a fee proportional to the project's fair share of unacceptable LOS effects.
3. The following are exempt from this Policy:
    a. Farmworker Housing Complexes and other housing exclusively for lower-income households. Affordable housing developments, pursuant to Article 16 of the Non-Coastal Zoning Ordinance, where such developments are served by roads that are currently operating at LOS "E" or better;
    b. Additional dwellings and lots on Cultural Heritage Sites as permitted in the Non-Coastal Zoning Ordinance;
    c. Agriculture and Agricultural Operations as permitted in the Coastal and Non-Coastal Zoning Ordinances, where such developments are served by roads that are currently operating at LOS "E" or better;
    d. The unacceptable LOS exists on a City-maintained road or federal or state highway located within a city unless the applicable city has formally adopted and is implementing a general plan policy, ordinance, or a reciprocal traffic impact mitigation fee agreement with the County regarding development in the city that is intended to improve the LOS of County-maintained local roads and federal and state highways located within the unincorporated area of the county;
    e. Allow LOS "F" for Wendy Drive and maintain as two-lane road; and
    f. If the LOS effects of a County-approved Specific/Area Plan are determined acceptable pursuant to Policies CTM-1.3 and CTM-1.4, the LOS effects of any subsequent

development that is consistent with the approved Specific/Area Plan shall be exempt from this Policy.

- **Policy CTM-1.7: Pro Rata Share of Improvements**. The County shall require discretionary development that would generate additional traffic pays its pro rata share of the cost of added vehicle trips and the costs of necessary improvements to the Regional Road Network pursuant to the County's Traffic Impact Mitigation Fee Ordinance.
- **Policy CTM-2.3: County Road Access.** The County shall require discretionary development with access onto a County road to have the access point(s) designed and built to County standards.
- **Policy CTM-2.18: Complete Streets Standards in Existing Communities.** The County shall require discretionary development in designated Existing Communities to construct roadways to urban standards and Complete Streets principles, including curb, gutter, sidewalks, and bike lanes when there is a nexus for improvement. The County shall rely on the guidelines and design standards for Complete Streets design established by the California Manual on Uniform Traffic Control Devices (CAMUTCD), Caltrans in the Highway Design Manual, and Complete Streets Guidelines (pursuant to Deputy Directive-64-R2), Federal Highway Administration, American Association of State Highway and Transportation Officials (AASHTO).
- **Policy CTM-2.20: Safe Pedestrian Crossings.** The County shall improve pedestrian safety at intersections and mid-block locations in Existing Communities through approved features consistent with the California Manual on Uniform Traffic Control Devices (CAMUTCD), Highway Design Manual, Federal Highway Administration, American Association of State Highway and Transportation Officials (AASHTO), and the National Cooperative Highway Research Program Report 498 (Application of Pedestrian Crossing Treatments for Streets and Highways).
- **Policy CTM-2.27: Discretionary Development and Conditions of Approval to Minimize Traffic Impacts.** The County shall require that discretionary development be subject to permit conditions of approval, where feasible, to minimize traffic impacts by incorporating pedestrian and bicycle pathways, bicycle racks and lockers, ridesharing programs, transit improvements (bus turnouts, shelters, benches), and/or transit subsidies for employees or residents of the proposed development.
- **Policy CTM-3.5: Bicycle Routes in Rural Areas.** The County shall plan for bicycle network connectivity in rural, agricultural, and open space areas in a way that supports and complements business and agricultural activities in those areas.
- **Policy CTM-3.10: Bicycle Storage Facilities.** The County shall require adequate bicycle storage facilities (e.g., bicycle racks, lockers) for discretionary development as determined by allowable land uses at a given site.
- **Policy CTM-6.3: Permeable Pavement.** As part of new roadway planning and design as part of discretionary development, the County shall promote the use of permeable paving and other passive drainage features such as bioswales to prevent flooding, particularly in urban areas.
- **Policy CTM-6.5 Electric Vehicle Charging Stations.** The County shall support the installation of electric vehicle charging stations, where feasible, at County facilities, parking lots, park-and-ride lots, truck stops, and new development.

Waste Treatment and Disposal Facilities – Solid Waste Facilities

Ventura County General Plan – Goals, Policies, Programs

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goals 4.4.1-1 and 4.4.1-2 and Policies 4.4.2-1, 4.4.1-4, and 4.4.1-6 pertain to solid waste facilities. However, Policies 4.4.2-1 and 4.4.2-4 are not applicable to the proposed project as those policies pertain to projects that are community sewage or solid waste facilities.

- **Goals**
  - **4.4.1-1.** Ensure the provision of adequate individual and public sewage/waste collection, treatment, and disposal facilities to meet the County's current and future needs in a manner which will protect the natural environment and ensure protection of the public's health, safety, and welfare.
  - **4.4.1-2.** Ensure continuous waste disposal capacity to meet the County's current and projected waste disposal needs.
- **Policies**
  - **4.4.2-6.** Applicants for discretionary development shall be encouraged to employ practices that reduce the quantities of wastes generated and shall be requested to engage in recycling activities to further reduce the volume of waste disposed of in landfills.

Water Resources – Surface Water Quality

Ventura County General Plan – Goals, Policies, Programs

Per the County's Initial Study Assessment Guidelines, Ventura County General Plan Goals 1.3.1-1 through 1.3.1-3 and 1.3.1-6 and Policies 1.3.2-1, 1.3.2-2, 1.3.2-4, 1.3.2-6, and 1.3.2-10 pertain to surface water quality. However, Policies 1.3.2-6 and 1.3.2-10 are not applicable to the proposed project as those policies pertain to use of Santa Clara River and new golf courses, respectively.

- **Goals**
  - **1.3.1-1.** Inventory and monitor the quantity and quality of the County's water resources.
  - **1.3.1-2.** Effectively manage the water resources of the County by adequately planning for the development, conservation, and protection of water resources for present and future generations.
  - **1.3.1-3.** Maintain and, where feasible, restore the chemical, physical, and biological integrity of surface and groundwater resources.
  - **1.3.1-6.** Promote reclamation and reuse of wastewater for recreation, irrigation and to recharge aquifers.

- **Policies**
  - **1.3.2-1.** Discretionary development which is inconsistent with the goals and policies of the County's Water Management Plan (WMP) shall be prohibited, unless overriding considerations are cited by the decision-making body.
  - **1.3.2-2.** Discretionary development shall comply with all applicable County and State water regulations.
  - **1.3.2-4.** Discretionary development shall not significantly impact the quantity or quality of water resources within watersheds, groundwater recharge areas, or groundwater basins.

4.10.2 Impact Analysis

4.10.2.1 Significance Thresholds

Impacts related to land use would be potentially significant if the proposed project would:

1. Be inconsistent with the applicable General Plan goals and policies for each of the analyzed issue areas in the County's Initial Study Assessment Guidelines.

4.10.2.2 Project Impacts and Mitigation Measures

Threshold 1:	Would the project be inconsistent with the applicable General Plan goals and policies for "Air Quality" in the County's Initial Study Assessment Guidelines?

IMPACT LU-1 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES FOR AIR QUALITY. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would not discourage the County from implementing applicable goals related to air quality, including "attain[ing] and maintain[ing] the State and Federal Ambient Air Quality standards" (Goal 1.2.1-1). Additionally, although project-related impacts would be less than significant, Mitigation Measure AQ-1 is recommended to further reduce construction emissions of ROC and NO_X in accordance with VCAPCD guidance, which is in compliance with Goal 1.2.1-2 and Policy 1.2.2-3 (to mitigate adverse air quality impacts to the maximum extent feasible). The project is consistent with the VCAPCD's AQMP and applicable rules and permit requirements (Policies 1.2.2-1 and 1.2.2-5) and the project's air quality impacts were evaluated based on applicable County guidelines (Policy 1.2.2-2).

With implementation of state and County regulations and policies outlined in Section 4.1, *Air Quality*, the project would be consistent with the General Plan goals and policies pertaining to air quality. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 2:	Would the project be inconsistent with the applicable General Plan goals and policies for "Agricultural Resources – Soils" in the County's Initial Study Assessment Guidelines?

IMPACT LU-2 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES FOR AGRICULTURAL RESOURCES RELATED TO SOILS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would "preserve and protect agricultural lands…to assure the continued availability of such lands for the production of food, fiber, and ornamentals" (Goal 1.6.1-1) by including a 17.93-acre continued agricultural use parcel on the project site for continued agricultural crop production. Although the project would include development on Important Farmland and land designated as Agricultural by the General Plan, the project would also comply with Policy 1.6.2-1 because project has been designed "to remove as little land as possible from potential agricultural production and to minimize impacts on topsoil." In addition, the proposed housing complex have been designed to minimize potential "conflict with agricultural use of those lands" with the use of proposed landscaped buffers and parking lots between the proposed apartment buildings and adjacent agricultural fields (Policy 1.6.2-6).

The Ventura County NCZO allows for the development of farmworker housing complexes on parcels smaller than the prescribed minimum lot area on land zoned AE within or adjacent to a city Sphere of Influence, provided the remaining non-farmworker housing complex parcel is a minimum of 10 acres (Ventura County NCZO Section 8103-2.7). The project would include the continuation of agricultural use on a 17.93-acre continued agricultural use parcel on a project site zoned AE that is adjacent to the City of Camarillo (and its Sphere of Influence).

With implementation of state and County regulations outlined in Section 4.2, *Agricultural Resources – Soils*, the project would be consistent with the General Plan goals and policies pertaining to agricultural soils. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 3:	Would the project be inconsistent with the County's Save Open Space and Agricultural Resources (SOAR) Ordinance?

IMPACT LU-3 THE PROJECT WOULD BE CONSISTENT WITH THE COUNTY'S SAVE OPEN SPACE AND AGRICULTURAL RESOURCES (SOAR) ORDINANCE. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The purpose of the SOAR initiative is to protect open space and agricultural land by requiring a majority vote by residents before those areas can be re-designated and zoned for development.

The project site is in the Agricultural Exclusive 40-acre minimum lot size (AE-40 ac) zone and has an "Agricultural" General Plan land use designation. The purpose of this zone and designation is to preserve and protect commercial agricultural lands as a limited and irreplaceable resource, to preserve and maintain agriculture as a major industry in Ventura County and to protect these areas from the encroachment of non-related uses which, by their nature, would have detrimental effects upon the agricultural industry (see General Plan Land Use Designations Goals and Policies §3.2.1(4) [County of Ventura 2019] and NCZO §8104-1.2 [County of Ventura 2020]).

The proposed project includes a request for a subdivision of the existing parcel into four parcels, three of which would be developed for farmworker housing (approximately 18.5 acres) and one of which would remain in agricultural production (approximately 17.9 acres). The project site is located within the Sphere of Influence of the City of Camarillo. NCZO Section 8103-2.7 and General Plan Policy 3.1.2(6) permit the creation of parcels of less than the prescribed minimum lot area (e.g., 40 acres) to accommodate Farmworker Housing Complexes on land zoned AE within or adjacent to a City's Sphere of Influence, provided the remaining non-farmworker housing complex parcel is a minimum of 10 acres. Because the proposed project is consistent with both the General Plan and the NCZO, a General Plan Amendment and rezoning are not required. Therefore, the project is consistent with SOAR.

SOAR also identified that farmworker housing is a compatible use within the Agricultural designation. Section 1 (Findings and Purposes) (J) states:

> The purpose of this initiative is to continue ensure that Agricultural and Open Space lands are not prematurely or unnecessarily converted to other more intensive development uses incompatible with the purpose of the Agricultural, Open Space and Rural land use designations. Thus, this initiative seeks to further Agricultural, Open Space and Rural objectives, which could include, for example, adequate farm worker housing.

There are several exemptions in SOAR related to the construction of farmworker housing, which would authorize the Board of Supervisors, without a vote of the people, to process an application to redesignate lands that are designated Agricultural (see SOAR Section 2[g]). However, this provision in SOAR cannot be applied to the proposed project as a Farmworker Housing Complex is a use that is consistent with both the General Plan and the NCZO and does not require a redesignation.

Because the project involves the development of affordable farmworker housing, the proposed project would not require inclusion on the ballot for approval by the majority of voters, as set forth in the County's SOAR Ordinance. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 4:	Would the project be inconsistent with the applicable General Plan goals and policies for "Biological Resources" in the Initial Study Assessment Guidelines?

IMPACT LU-4 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES FOR BIOLOGICAL RESOURCES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would not discourage the County from "identify[ing], preserv[ing], and protect[ing] significant biological resources in Ventura County from incompatible land uses and development" (Goal 1.5.1). The project could result in significant impacts to nesting birds if such are present on or near the project site during project construction, and the project would require implementation of federal, state, and County laws and regulations to minimize potential impacts to nest birds. Therefore, the project would comply with Policies 1.5.2-1 and 1.5.2-2. The project would comply with County requirements related to water features (Policy 1.5.2-3). The project would impact potential jurisdictional waters but not significant wetland habitats; therefore, the project would be in compliance with Policy 1.5.2-4. In addition, the project would not impact sensitive plant communities or special-status species; therefore, the project would be consistent with Policy 1.5.2-5. The project may require a culvert for the off-site portion of the eastern driveway; the culvert

would be relatively small in length and diameter and would not affect wildlife passage, and would be in compliance with Policy 1.5.2-6.

With implementation of federal, state, and County laws and regulations outlined in Section 4.3, *Biological Resources*, as well as Mitigation Measure BIO-3, the project would be consistent with the General Plan goals and policies pertaining to biological resources. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 5:	Would the project be inconsistent with the applicable General Plan goals and policies for "Cultural Resources – Historic" in the County's Initial Study Assessment Guidelines?

IMPACT LU-5 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES FOR HISTORIC CULTURAL RESOURCES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would not preclude the County from implementing goals applicable to historic resources, including "identify[ing], inventory, preserv[ing], and protect[ing]…cultural resources of Ventura…for their scientific, educational, and cultural value" (Goal 1.8.1-1) and "enhance[ing] cooperation with cities, special districts, other appropriate organizations, and private landowners in acknowledging and preserving the County's…cultural resources" (Goal 1.8.1-2). With completion of the Cultural Resources Assessment (Appendix E), the project is in compliance with Policies 1.8.2-1 through 1.8.2-6.

With implementation of state and County regulations outlined in Section 4.4, *Cultural Resources – Historic*, the project would be consistent with the General Plan goals and policies pertaining to historic resources. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 6:	Would the project be inconsistent with the applicable General Plan goals and policies for "Noise and Vibration" of the County's Initial Study Assessment Guidelines?

IMPACT LU-6 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES FOR NOISE AND VIBRATION. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would help meet the County its Goal 2.16.1 "to protect the health, safety, and general welfare of County residents by elimination or avoidance of adverse noise impacts on existing and future noise sensitive uses" as discussed previously in this section. Noise compatibility would occur between the proposed housing complex and adjacent uses, including Rancho Campana High School and Camarillo Public Library (Policy 2.16.2-1). Similarly, the proposed project's operational noise would not exceed the County's noise significance thresholds, as previously described in this section (Policy 2.16.2-2). Because mitigation is not required for the project, the noise control priorities presented in Policy 2.16.2-3 are not applicable to the proposed project.

With implementation of County regulations outlined in Section 4.5, *Noise and Vibration*, the project would be consistent with the General Plan goals and policies pertaining to noise and vibration. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 7:	Would the project be inconsistent with the applicable General Plan goals and policies for "Public Health" in the County's Initial Study Assessment Guidelines?

IMPACT LU-7 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES FOR PUBLIC HEALTH. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The County's Initial Study Assessment Guidelines does not list any specific public health County General Plan goals or policies with which a project should be consistent. Nonetheless, the project would be consistent with the County General Plan goals and policies listed previously under Regulatory Setting for Public Health. The proposed CWWTF would "ensure the provision of adequate individual…sewage/waste collection, treatment, and disposal facilities meet…current and future needs in a manner which [would] protect the natural environment and ensure protection of the public's health, safety, and welfare" (Goal 4.4.1-1) because the project would be in compliance with applicable federal, state, and local health and safety requirements for the handling, storage, transportation, and disposal of hazardous materials, as discussed under Impact PH-1. The project would be consistent with the applicable General Plan goals and policies, as discussed throughout Section 4 of this EIR (Policy 4.4.2-1). The project would include a CWWTF in accordance with the County Sewer Policy and County Building Code (Policy 4.4.2-2). The project would also comply with Policy 4.4.2-3 because the housing complex would utilize water-conserving design features. As discussed throughout this EIR, the CWWTF would not result in significant impacts (Policy 4.4.2-5).

With implementation of state and County regulations outlined in Section 4.6, *Public Health*, the project would be consistent with applicable General Plan goals and policies. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 8:	Would the project be inconsistent with the applicable General Plan goals and policies for "Transportation & Circulation" in the County's Initial Study Assessment Guidelines?

IMPACT LU-8 THE PROJECT WOULD BE CONSISTENT WITH APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES FOR TRANSPORTATION AND CIRCULATION. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As analyzed in Section 4.7, *Transportation*, and in the project-specific Traffic Study (ATE 2020; Appendix H), the project would comply with the VMT standards and County LOS, road access, complete streets, safe pedestrian crossings, and bicycle storage facilities standards cited in the County's Initial Study Assessment Guidelines related to Transportation.

With implementation of state and County standards and regulations outlined in Section 4.7, *Transportation*, the project would be consistent with the General Plan goals and policies pertaining to transportation. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 9:	Would the project be consistent with the applicable General Plan goals and policies for "Waste Treatment & Disposal Facilities – Solid Waste Facilities" in the County's Initial Study Assessment Guidelines?

IMPACT LU-9 THE PROJECT WOULD BE CONSISTENT WITH THE APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES FOR SOLID WASTE FACILITIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would not discourage the County from implementing applicable goals related to surface water quality, including "ensur[ing] adequate individual and public sewage/waste collection, treatment, and disposal facilities to meet the County's current and future needs" (Goal 4.4.1-1) and "ensur[ing] continuous waste disposal capacity to meet the County's current and projected waste disposal needs" (Goal 4.4.1-2). The project applicant would also inform new residents about the County's practices to reduce wastes generated, including wastewater. Regardless, the proposed housing complex would treat all project-generated wastewater at the proposed CWWTF. Therefore, the project would not contribute to wastewater to County-treated wastewater generation.

With implementation of state and County laws and regulations outlined in Section 4.8, *Waste Treatment – Solid Waste Facilities*, the project would be consistent with General Plan goals and policies pertaining to solid waste facilities. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Threshold 10:	Would the project be inconsistent with the applicable General Plan goals and policies for "Water Resources – Surface Water Quality" in the County's Initial Study Assessment Guidelines?

IMPACT LU-10 THE PROJECT WOULD BE CONSISTENT WITH THE APPLICABLE VENTURA COUNTY GENERAL PLAN GOALS AND POLICIES FOR SURFACE WATER QUALITY. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would not discourage the County from implementing applicable goals related to surface water quality, including "inventory and monitor[ing of] the quantity and quality of the County's water resources" (Goal 1.3.1-1) and "effectively manag[ing] the water resources of the County by adequately planning for…water resources for present and future generations" (Goal 1.3.1-2). The project would also help the County to meet Goals 1.3.1-3 and 1.3.1-6 because the proposed CWWTF would treat project-generated wastewater to meet Disinfected Tertiary Recycled Water requirements in accordance with CCR Title 22. Higher-quality recycled water generated by the CWWTF would be blended with pumped groundwater to improve the quality of agricultural irrigation water (WREA 2019). The project would be consistent with the goals and policies of the County's Water Management Plan (Policy 1.3.2-1) and would comply with all applicable state and County water regulations (Policy 1.3.2-2), as previously described in this section. Additionally, the

project would "not significantly impact the quantity or quality of water resources within watersheds, groundwater recharge areas, or groundwater basins" (Policy 1.3.2-2).

With implementation of federal, state, and County regulations and requirements outlined in Section 4.9, *Water Resources – Surface Water Quality*, the project would be consistent with General Plan policies pertaining to surface water quality. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

4.10.2.3 Cumulative Impacts

Table 3-1 in Section 3, *Environmental Setting,* identifies currently planned and pending projects in Ventura County. Project PL15-0014, located at 3100 Somis Road in Camarillo, involves a General Plan amendment to change the land use designation from Agricultural (40-acre minimum) to Existing Community, and a rezone of the same area from Agricultural Exclusive (AE 40) to Limited Industrial (M2) for the continued use, operation, and expansion of a wholesale lumber yard. The Ventura County General Plan amendment must be approved by a majority countywide vote pursuant to the County's SOAR ordinance. No other planned or pending project in Table 3-1 would require a Ventura County General Plan amendment or SOAR vote.

The proposed project would be consistent with all General Plan goals and policies. As discussed above, although project-related impacts would be less than significant, Mitigation Measure AQ-1 is recommended to further reduce construction emissions of ROC and NO_X in accordance with VCAPCD guidance, which is in compliance with Goal 1.2.1-2 and Policy 1.2.2-3. As also discussed above, the proposed project would not require a vote under SOAR.

Planning and pending development would be subject to Ventura County General Plan goals and policies and, as noted above, the proposed project would be consistent with all applicable General Plan goals and policies. Therefore, the project would not make a substantial contribution to cumulative land use impacts and cumulative impacts would be less than significant.

4.11 Less Than Significant Environmental Effects

Sections 4.1 through 4.10 of this EIR focus on potentially significant impacts that may result from project implementation. This section discusses the remaining environmental issue areas included in the County's Initial Study Assessment Guidelines (County 2011), of which the proposed project would result in less than significant impact or no impact. In addition, this section of the EIR discusses energy, per Appendix G of the CEQA Guidelines.

- **Aesthetics/Scenic Resources.** The project site is not located in or near a Scenic Resource Area as depicted on the County's Resource Protection Map. Therefore, the project would not physically alter scenic resources and would not substantially obstruct, degrade, or obscure a scenic vista. No impact to scenic resources would occur.
- **Forestry Resources.** The project site is not located in or near forestland or timberland. Therefore, no impact to forestry resources would occur.
- **Cultural Resources – Archaeological.** Section 4.4, *Cultural Resources – Historic*, includes a discussion of the prehistoric context, ethnographic context, and historic context, as well as the records search results from the California Historical Resources Information System (CHRIS) was conducted at South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The SCCIC records search identified 14 previously conducted cultural resources studies within a 0.5-mile radius of the project site. The cultural resources records search identified three previously recorded cultural resources within a 0.5-mile radius of the project site, none of which are located within the project site (see Section 4.4 of this EIR). Of the recorded resources in the records search radius, two are Native American-origin archaeological resources in close proximity to the current project site.

  A qualified archaeologist conducted a pedestrian survey of the project site on April 28, 2020. The majority of the project site has been previously disturbed from grading, building development, and agricultural activities. The pedestrian field survey identified three isolated shell fragments in the southern portion of the project site and intermixed modern and historic-era refuse along the eastern boundary of the project site. The isolated shell fragments were not found in association with any other cultural materials or soil discoloration and are therefore not considered cultural resources. Based on the size and nature of the historic and modern refuse, the deposit is likely related to episodic refuse dumping that occurred during the construction and maintenance of the culvert. Episodic refuse dumping is a common pattern observed in rural communities before the health and safety laws of the 1960s and 1970s. The refuse was not formally recorded as a cultural resource due to heavy modern disturbances and the undiagnostic fragmented nature of the find. Native American outreach identified the project site as sensitive for archaeological resources and Patrick Tumamait of the Barbareño/Ventureño Band of Mission Indians recommended Native American monitoring during all ground disturbance associated with the project.

  Based on the proximity of the project to a freshwater source (Arroyo Las Posas), the presence of nearby archaeological resources, and the results of Native American outreach, the area is considered sensitive for archaeological resources. Therefore, archaeological and Native American monitoring during project ground disturbance during construction activities. With the inclusion of archaeological and Native American monitoring during project construction, impacts to archaeological resources would be less than significant.

- **Energy.** The proposed project would require the use of petroleum and electricity for construction and operation; the project would not require the use of natural gas. Electricity would be provided by SCE. According to the California Energy Commission (CEC), in 2018, the County of Ventura consumed approximately 5,539.4 gigawatts (GWh) of electricity (CEC 2019).

  Project construction would require energy resources primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary grid power may also be provided to construction trailers or electric construction equipment. Energy use during construction activities would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of 13 California Code of Regulations (CCR) Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes to minimize unnecessary fuel consumption. Construction equipment would also be subject to the U.S. EPA Construction Equipment Fuel Efficiency Standard (40 Code of Federal Regulations [CFR] Parts 1039, 1065, and 1068), which would minimize inefficient fuel consumption. Therefore, project construction would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy, and impacts would be less than significant.

  Project operation would consume approximately 1.5 GWh of electricity and per year, which represents less than 0.03 percent of the 5,530 GWh from the County's annual electricity use. The project would comply with standards set in California Building Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation. CALGreen (as codified in CCR Title 24, Part 11) requires implementation of energy-efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2019 Building Energy Efficiency Standards (CBC Title 24, Part 6) requires newly constructed buildings to meet energy efficiency performance standards set by the CEC. The standards are updated every three years, and each iteration increases energy efficiency standards. For example, according to the CEC, residences built with the 2019 standards will use about seven percent less energy due to energy efficiency measures (CEC 2018). Furthermore, use of nonrenewable energy resources would decline over time as the electricity generated by renewable resources provided by SCE continues to increase to comply with state requirements through Senate Bill 100, which requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

  Based on the above, the project would not result in wasteful or unnecessary energy consumption, and impacts would be less than significant.

- **Geology/Soils.** The project site is not within a state-designated Alquist-Priolo Special Fault Study Zone (Earth Systems Pacific 2019; Appendix J). Additionally, according to the County's Hazards Protection Map, the project site in not within a County-designated Earthquake Fault Hazard Zone (County 2020b). The project site and surrounding area are subject to moderate to strong ground shaking from seismic events due to nearby fault systems (Earth Systems Pacific 2019; Appendix J).

  The project would be constructed in accordance with California Building Code (CBC) guidelines. The CBC includes several seismic design parameters that are influenced by the geographic site location with respect to active and potentially active faults, and with respect to subsurface soil or rock conditions. Because of mandated standards included in the CBC and the County of

Ventura Building Code related to geologic hazards, the project would result in less than significant impacts to geology and soils.

- **Greenhouse Gas (GHG) Emissions.** The Ventura County Air Pollution Control District has not adopted a specific threshold of significance for GHG emissions associated with land use development projects. The majority of individual projects do not generate sufficient GHG emissions to create significant project-specific environment effects. However, the environmental effects of a project's GHG emissions can contribute incrementally to cumulative environmental effects that are significant, contributing to climate change, even if an individual project's environmental effects are limited (CEQA Guidelines Section 15064[h][1]). The issue of a project's environmental effects and contribution towards climate change typically involves an analysis of whether or not a project's contribution towards climate change is cumulatively considerable. Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

  Section 15064.4 of the CEQA Guidelines recommends that lead agencies quantify GHG emissions of projects and consider several other factors that may be used in the determination of significance of GHG emissions from a project, including the extent to which the project may increase or reduce GHG emissions; whether a project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHG emissions.

  CEQA Guidelines Section 15064.4 does not establish a threshold of significance. Lead agencies have the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, as long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7[c]). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130[f]). As a note, the CEQA Guidelines were amended in response to Senate Bill 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

  Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem in the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of GHG emissions." Therefore, a lead agency can make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

  Therefore, in the absence of any adopted numeric threshold, the significance of the project's GHG emissions are primarily evaluated based on CEQA Guidelines Section 15064.4(b) and the consideration of whether the project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For this project, the most directly applicable adopted regulatory

plans to reduce GHG emissions are the 2017 Climate Change Scoping Plan, the Southern California Association of Governments' (SCAG) 2016-2040 and 2020-2045 Regional Transportation Plans/Sustainable Communities Strategies (RTP/SCS), the County's current (2019) General Plan, and the County's Draft 2040 General Plan (2020a).

Consistency with Applicable Regulatory Plans. The project would be consistent with the California Air Resources Board's (CARB) 2017 Climate Change Scoping Plan, the Southern California Association of Governments' (SCAG) 2016–2040 RTP/SCS, the SCAG's 2020-2045 RTP/SCS,[6] the adopted 2019 County of Ventura General Plan, and the Draft Ventura County 2040 General Plan, as discussed below.

- *2017 Climate Change Scoping Plan*. The principal state plan and policy is the California Global Warming Solutions Act of 2006, first enacted by AB 32 and amended by SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020, and the quantitative goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Pursuant to the SB 32 goal, the 2017 Scoping Plan was created to outline goals and measures for the state to achieve the reductions. The 2017 Scoping Plan's goals include reducing fossil fuel use and energy demand and maximizing recycling and diversion from landfills (CARB 2017). The project would be consistent with these goals through project design, which includes complying with the latest Title 24 Green Building Code and Building Efficiency Energy Standards and providing opportunities to reduce vehicle trips by including approximately 379 bicycle parking spaces, an on-site pedestrian walkway network, and on-site recreational amenities. Therefore, the project would be consistent with the 2017 Climate Change Scoping Plan.
- *2016-2040 RTP/SCS*. The SCAG 2016–2040 RTP/SCS is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars by 8 percent below 2005 levels by 2020, 18 percent by 2035, and 21 percent by 2040. In March 2018, CARB adopted updated targets requiring a 19 percent decrease in GHG emissions from passenger cars for the SCAG region by 2035. The CARB targets were adopted after publication of the 2016 RTP/SCS; as a result, the updated targets have been incorporated into the 2020-2045 RTP/SCS, which is discussed further in the following subsection.

  In addition to demonstrating the region's ability to attain and exceed the GHG emission-reduction targets set forth by CARB, the 2016-2040 RTP/SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Thus, successful implementation of the 2016-2040 RTP/SCS would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use and per capita vehicle miles traveled (VMT). The project's consistency with the 2016-2040 RTP/SCS is discussed in Table 4.11-1. As shown therein, the proposed project would be consistent with the GHG emission reduction strategies contained in the 2016-2040 RTP/SCS.

[6] On May 7, 2020, SCAG's Regional Council adopted the 2020-2045 RTP/SCS (titled Connect SoCal) for federal transportation conformity purposes and will consider approval of the full plan and for all other purposes within 120 days of this date. Although the 2020-2045 RTP/SCS was not fully adopted at the time of this EIR (August 2020), this EIR provides an analysis of the project's consistency with the 2020-2045 RTP/SCS for full disclosure.

Table 4.11-1 Project Consistency with Applicable SCAG 2016-2040 RTP/SCS Strategies

Reduction Strategy	Project Consistency
Land Use Actions and Strategies	
Reflect the Changing Population and Demands The SCAG region, home to about 18.3 million people in 2012, currently features 5.9 million households and 7.4 million jobs. By 2040, the Plan projects that these figures will increase by 3.8 million people, with nearly 1.5 million more homes and 2.4 million more jobs. High Quality Transit Areas (HQTA) will account for three percent of regional total land, but will accommodate 46 percent and 55 percent of future household and employment growth respectively between 2012 and 2040. The 2016 RTP/SCS land use pattern contains sufficient residential capacity to accommodate the region's future growth, including the eight-year regional housing need. The land use pattern accommodates about 530,000 additional households in the SCAG region by 2020 and 1.5 million more households by 2040. The land use pattern also encourages improvement in the jobs-housing balance by accommodating 1.1 million more jobs by 2020 and about 2.4 million more jobs by 2040.	**Consistent.** The proposed project would involve construction of a multi-family housing complex for farmworkers with 100 percent affordable units that would allow farmworkers to live in close proximity to agricultural fields. Therefore, the project would accommodate additional household growth in proximity to job opportunities.
Focus New Growth Around Transit The 2016 RTP/SCS land use pattern reinforces the trend of focusing growth in the region's HQTAs. Concentrating housing and transit in conjunction concentrates roadway repair investments, leverages transit and active transportation investments, reduces regional life cycle infrastructure costs, improves accessibility, avoids greenfield development, and has the potential to improve public health and housing affordability. HQTAs provide households with alternative modes of transport that can reduce VMT and GHG emissions.	**Consistent.** The project site is not located in an HQTA; however, the 2016-2040 RTP/SCS assumes that 54 percent of new housing developed between 2012 and 2040 will occur outside of HQTAs. The proposed project is strategically located to provide affordable housing to local farmworkers so that they are able to live in close proximity to agricultural fields, which would reduce VMT and associated GHG emissions. Furthermore, the project site is approximately one mile south of the Somis Road/Rice Street stop for Ventura County Transportation Commission Route 77, which provides express bus service between Simi Valley and Ventura and includes stops at key transit hubs including the Camarillo Metrolink station.
Provide More Options for Short Trips 38 percent of all trips in the SCAG region are less than three miles. The 2016 RTP/SCS provides two strategies to promote the use of active transport for short trips. Neighborhood Mobility Areas are meant to reduce short trips in a suburban setting, while "complete communities" support the creation of mixed-use districts in strategic growth areas and are applicable to an urban setting.	**Consistent.** The proposed project includes farmworker housing within 0.25 mile of local-serving retail and restaurants, the Camarillo Public Library, Rancho Campana High School, and agricultural fields. The project also includes an on-site network of meandering pedestrian walkways, approximately 379 bicycle parking spaces, and recreational amenities including community centers, play fields, tot lots/playgrounds, a basketball court, and a community garden area. The project would connect to existing sidewalks along the southbound lane of Somis Road, and the project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road. Therefore, the project would provide options to use active transport for short trips.

Reduction Strategy	Project Consistency
Support Local Sustainability Planning To implement the SCS, SCAG supports local planning practices that help lead to a reduction of GHG emissions. Sustainable Planning & Design, Zoning Codes, and Climate Action Plans are three methods that local agencies have been adopting and implementing to help meet the regional targets for GHG emission reductions outlined in the SCS.	**Consistent.** The project would support this /strategy because it would be consistent with the current County General Plan and the Draft 2040 General Plan, which includes the County's Draft Climate Action Plan (see Table 4.11-3 and Table 4.11-4, respectively).
Transportation Strategies	
Transit Since 1991, the SCAG region has spent more than $50 billion dollars on public transportation. This includes high profile investments in rail transit and lower profile, vital investments in operations and maintenance. Looking toward to 2040, the 2016 RTP/SCS maintains a significant investment in public transportation across all transit modes and also calls for new household and employment growth to be targeted in areas that are well-served by public transportation to maximize the improvements called for in the Plan.	**Consistent.** The 2016-2040 RTP/SCS does not identify any specific locally notable transit capital projects or capital investment packages for Ventura County. However, the project site is approximately one mile south of the Somis Road/Rice Street stop for Ventura County Transportation Commission Route 77, which provides express bus service between Simi Valley and Ventura and includes stops at key transit hubs including the Camarillo Metrolink station. Therefore, residents would have the opportunity to use public transit.
Active Transportation The 2016 RTP/SCS includes $12.9 billion for active transportation improvements, including $8.1 billion in capital projects and $4.8 billion as part of the operations and maintenance expenditures on regionally significant local streets and roads. The Active Transportation portion of the 2016 Plan updates the Active Transportation portion of the 2012 Plan, which has goals for improving safety, increasing active transportation usage and friendliness, and encouraging local active transportation plans. It proposes strategies to further develop the regional bikeway network, assumes that all local active transportation plans will be implemented, and dedicates resources to maintain and repair thousands of miles of dilapidated sidewalks. To accommodate the growth in walking, biking, and other forms of active transportation regionally, the 2016 Active Transportation Plan also considers new strategies and approaches beyond those proposed in 2012.	**Consistent.** The proposed project includes farmworker housing within 0.25 mile of local-serving retail and restaurants, the Camarillo Public Library, Rancho Campana High School, and agricultural fields. The project also includes an on-site network of meandering pedestrian walkways, approximately 379 bicycle parking spaces, and recreational amenities including community centers, play fields, tot lots/playgrounds, a basketball court, and a community garden area. The project would connect to existing sidewalks along the southbound lane of Somis Road, and the project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road. Therefore, walking or bicycling would be viable modes of transportation to reach numerous destinations.
Zero-Emissions Vehicles While SCAG's policies are technology neutral with regard to supporting zero and/or near zero-emissions vehicles, this section will focus on zero-emissions vehicles. Since SCAG adopted the 2012 RTP/SCS, the Governor's Office released the Zero Emissions Vehicle (ZEV) Action Plan for 2013 and 2015. These plans identified state level funding to support the implementation of Plug-in Electric Vehicle (PEV) and Hydrogen Fuel Cell refueling networks. As part of the 2016 RTP/SCS, SCAG modeled PEV growth specific to Plug-in Hybrid Electric Vehicles (PHEV) in the SCAG region. These are electric vehicles that are powered by a gasoline engine when their battery is depleted. The 2016 RTP/SCS proposes a regional charging network that will increase the number of PHEV miles driven on electric	**Consistent.** In accordance with Section 4.106.4.2 of 2019 CALGreen, the project would be required to designate ten percent of parking spaces (i.e., 66 spaces) for electric vehicle charging spaces capable of supporting future electric vehicle supply equipment.

Reduction Strategy	Project Consistency
power. In many instances, these chargers may double the electric range of PHEVs. A fully funded regional charging network program would result in a reduction of one percent per capita GHG emissions.	

Source: SCAG 2016

- *2020-2045 RTP/SCS*. On May 7, 2020, SCAG's Regional Council adopted the 2020-2045 RTP/SCS (titled Connect SoCal) for federal transportation conformity purposes and will consider approval of the full plan and for all other purposes within 120 days of this date. Although the 2020-2045 RTP/SCS was not fully adopted at the time of this EIR (June 2020), this EIR provides an analysis of the project's consistency with the 2020-2045 RTP/SCS for full disclosure.

  The SCAG 2020-2045 RTP/SCS is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars by 8 percent below 2005 levels by 2020 and 19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. The 2020-2045 RTP/SCS builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes ten goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban greening, creating greenbelts and community separators, and implementing regional advance mitigation (SCAG 2020). The project's consistency with the 2020-2045 RTP/SCS is discussed in Table 4.11-2. As shown therein, the proposed project would be consistent with the GHG emission reduction strategies contained in the 2020-2045 RTP/SCS.

Table 4.11-2 Project Consistency with Applicable SCAG 2020-2045 RTP/SCS Strategies

Reduction Strategy	Project Consistency
Focus Growth Near Destinations & Mobility Options. ▪ Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations ▪ Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets ▪ Plan for growth near transit investments and support implementation of first/last mile strategies z Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses ▪ Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods ▪ Encourage design and transportation options that reduce the reliance on and number of solo car trips	**Consistent**. The proposed project is strategically located to provide affordable housing to local farmworkers so that they are able to live in close proximity to agricultural fields, which reduces VMT and associated GHG emissions. In addition, the project site is within 0.25 mile of local-serving retail and restaurants, the Camarillo Public Library, Rancho Campana High School, and agricultural fields. The project also includes an on-site network of meandering pedestrian walkways, approximately 379 bicycle parking spaces, and recreational amenities including community centers, play fields, tot lots/playgrounds, a basketball court, and a community garden area. The project would connect to existing sidewalks along the southbound lane of Somis Road, and the project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road. Furthermore, the project site is approximately one mile south of the Somis Road/Rice Street stop for Ventura County Transportation Commission Route 77, which provides express bus service between Simi Valley and

Reduction Strategy	Project Consistency
(this could include mixed uses or locating and orienting close to existing destinations) ▪ Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g. shared parking or smart parking)	Ventura and includes stops at key transit hubs including the Camarillo Metrolink station. Therefore, the project would focus growth near destinations and mobility options.
Promote Diverse Housing Choices. ▪ Preserve and rehabilitate affordable housing and prevent displacement ▪ Identify funding opportunities for new workforce and affordable housing development ▪ Create incentives and reduce regulatory barriers for building context sensitive accessory dwelling units to increase housing supply ▪ Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of GHGs	**Consistent**. The proposed project would involve construction of a multi-family housing complex for farmworker with 100 percent affordable units that would allow farmworkers to live in close proximity to agricultural fields, which would reduce commute trip distances. Therefore, the project would promote diverse housing choices that support the reduction of GHG emissions.
Leverage Technology Innovations. ▪ Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space ▪ Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a "mobility wallet," an app-based system for storing transit and other multi-modal payments ▪ Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation	**Consistent.** In accordance with Section 4.106.4.2 of 2019 CALGreen, the project would be required to designate ten percent of parking spaces (i.e., 66 spaces) for electric vehicle charging spaces capable of supporting future electric vehicle supply equipment. Furthermore, the project would be required to install photovoltaic (PV) solar panels that generate an amount of electricity equal to expected electricity usage on all residential buildings in accordance with the 2019 Building Energy Efficiency Standards. Therefore, the project would leverage technology innovations.
Support Implementation of Sustainability Policies. ▪ Pursue funding opportunities to support local sustainable development implementation projects that reduce GHG emissions ▪ Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations ▪ Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space ▪ Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies ▪ Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region ▪ Continue to support long range planning efforts by local jurisdictions	**Consistent.** The project would be consistent with the current County General Plan and the Draft 2040 General Plan, which includes the County's Draft Climate Action Plan (see Table 4.11-3 and Table 4.11-4, respectively). In addition, the project would be constructed in accordance with the 2019 CALGreen. Therefore, the project would support implementation of sustainability policies.

Reduction Strategy	Project Consistency
▪ Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy	
Promote a Green Region. ▪ Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards ▪ Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration ▪ Integrate local food production into the regional landscape ▪ Promote more resource efficient development focused on conservation, recycling and reclamation ▪ Preserve, enhance and restore regional wildlife connectivity ▪ Reduce consumption of resource areas, including agricultural land ▪ Identify ways to improve access to public park space	**Consistent.** The project would be consistent with the current County General Plan and the Draft 2040 General Plan, which includes the County's draft Climate Action Plan (see Table 4.11-3 and Table 4.11-4, respectively). In addition, the project would be constructed in accordance with the 2019 CALGreen. As discussed in Section 4.2, *Agricultural Resources – Soils*, of this EIR, the project would result in significant and unavoidable impacts to Important Farmland. However, the project's design includes clustering of the housing complex features to the extent feasible and, therefore, the project's impacts to agricultural land would be reduced to the maximum extent possible. Therefore, the project would promote a "green" region.

Source: SCAG 2020

- *Current (2019) Ventura County General Plan*. The current (2019) adopted County of Ventura General Plan contains goals and policies related to GHG emissions reduction in several elements, including the Resources Element and the Public Facilities and Services Element. Table 4.11-3 summarizes the project's consistency with the policies of the current (2019) Ventura County General Plan related to GHG emission reduction. As shown therein, the project would be consistent with the applicable policies of the current Ventura County General Plan.

Table 4.11-3 Project Consistency with Current (2019) County General Plan

Policy	Project Consistency
1.3.2.5. Landscape plans for discretionary development shall incorporate water conservation measures as prescribed by the County's Guide to Landscape Plans, including use of low water usage landscape plants and irrigation systems and/or low water usage plumbing fixtures and other measures designed to reduce water usage.	**Consistent**. The project includes use of a landscaping plant palette with drought-tolerant tree and shrub species and would be required to comply with the County's Landscape Design Criteria (which supersedes the County's Guide to Landscape Plans) for all landscaped parking areas pursuant to Ventura County Code Section 8108-5.14.3 (County of Ventura 1992). The project would utilize water-efficient irrigation systems such as bubblers or drip irrigation. In addition, 2019 CALGreen requires compliance with the current California Department of Water Resources Model Water Efficient Landscape Ordinance, which includes use of automatic irrigation systems utilizing weather and/or soil moisture based irrigation controllers (Title 23 California Code of Regulations Section 492.7).

Policy	Project Consistency
1.9.2.1. Discretionary development shall be evaluated for impact to energy resources and utilization of energy conservation techniques.	**Consistent**. The project would be constructed in accordance with 2019 Building Energy Efficiency Standards and 2019 CALGreen, which require implementation of a variety of energy conservation and energy efficiency features. In addition, as discussed in Section 4.10.47, *Energy*, the project would not result in wasteful, inefficient, or unnecessary consumption of energy and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
1.9.2.4. The Building and Safety Division shall continue to implement Title 24 energy efficiency standards for buildings.	**Consistent**. The project would be constructed in accordance with 2019 Title 24 standards.
4.2.2.8. Discretionary development shall be conditioned, where feasible, to minimize traffic impacts by incorporating pedestrian and bicycle pathways, bicycle racks and lockers, ridesharing programs, transit improvements (bus turnouts, shelters, benches), and/or transit subsidies for employees or residents of the proposed development.	**Consistent.** The project would include an on-site network of meandering pedestrian walkways and approximately 379 bicycle parking spaces. The project would connect to existing sidewalks along the southbound lane of Somis Road, and the project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road. Therefore, the project would minimize traffic impacts by incorporating new and existing pedestrian and bicycle infrastructure.

Source: County of Ventura 2019

- *Draft Ventura County 2040 General Plan*. The Draft Ventura County 2040 General Plan incorporates policies and programs related to GHG emission reductions such that the General Plan will serve as the County's Climate Action Plan. Policies and programs are integrated in the Land Use Element; Circulation Element; Public Facilities, Services, and Infrastructure Element; Conservation and Open Space Element; Hazards and Safety Element; Agriculture Element; and Water Resources Element. Table 4.11-4 summarizes the project's consistency with policies of the Draft Ventura County 2040 General Plan associated with GHG emission reductions. As shown therein, the project would be consistent with the applicable policies of the Draft 2040 General Plan.

Table 4.11-4 Project Consistency with Draft Ventura County 2040 General Plan

Policy	Project Consistency
LU-1.1 Guidelines for Orderly Development. The County shall continue to promote orderly and compact development by: ▪ Working with cities in Ventura County and the Ventura Local Agency Formation Commission (LAFCO) to promote and maintain reasonable city boundaries and Spheres of Influence to prevent growth-inducing urban development in unincorporated areas, and ▪ Require unincorporated urban development to be located in areas designated as Existing Communities and unincorporated urban centers consistent with the Guidelines for Orderly Development and as defined in Policy LU-1.2.	**Consistent**. Although the project site is not located in an area designated as an Existing Community, the project site is adjacent to the boundary of the city of Camarillo and therefore would not represent growth-inducing development because it would be well-served by minor extensions to existing utility infrastructure and public services. In addition, the project would have a density of approximately 19.5 dwelling units per acre, which is consistent with the County's Residential High Density (RHD) zoning classification that allows 20 dwelling units per acre. In addition, the project site is within 0.25 mile of local-serving retail and restaurants, the Camarillo Public Library, and Rancho Campana High School. Therefore, the project would consist of orderly and compact development.

Policy	Project Consistency
LU-16.9 Building Orientation and Landscaping. The County shall encourage discretionary development to be oriented and landscaped to enhance natural lighting, solar access, and passive heating or cooling opportunities to maximize energy efficiency.	**Consistent.** As shown in Figure 2-6 in Section 2, *Project Description*, the project includes planting of approximately 242 trees throughout the project site, which would provide passive cooling opportunities to maximize building energy efficiency. In addition, in accordance with Section 150.1(b)14 of the 2019 Building Energy Efficiency Standards, the project would be required to install PV solar panels that generate an amount of electricity equal to expected electricity usage.
CTM-2.3 County Road Access. The County shall require discretionary development with access onto a County road to have the access point(s) designed and built to County standards.	**Consistent**. The project's access points onto Somis Road would be required to be designed and built to County standards.
CTM-2.11 Efficient Land Use Patterns. The County shall establish land use patterns that promote shorter travel distances between residences, employment centers, and retail and service-oriented uses to support the use of public transportation, walking, bicycling, and other forms of transportation that reduce reliance on single-passenger automobile trips.	**Consistent**. The proposed project is strategically located to provide affordable housing to local farmworkers so that they are able to live in close proximity to agricultural fields. In addition, the project site is within 0.25 mile of local-serving retail and restaurants, the Camarillo Public Library, Rancho Campana High School, and agricultural fields. The project also includes an on-site network of meandering pedestrian walkways, approximately 379 bicycle parking spaces, and recreational amenities including community centers, play fields, tot lots/playgrounds, a basketball court, and a community garden area. The project would connect to existing sidewalks along the southbound lane of Somis Road, and the project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road. Therefore, the project would promote shorter travel distances between various destinations.
CTM-2.27 Discretionary Development and Conditions of Approval to Minimize Traffic Impacts. The County shall require that discretionary development be subject to permit conditions of approval, where feasible, to minimize traffic impacts by incorporating pedestrian and bicycle pathways, bicycle racks and lockers, ridesharing programs, transit improvements (bus turnouts, shelters, benches), and/or transit subsidies for employees or residents of the proposed development.	**Consistent.** The project includes an on-site network of meandering pedestrian walkways, approximately 379 bicycle parking spaces, and recreational amenities including community centers, play fields, tot lots/playgrounds, a basketball court, and a community garden area. The project would connect to existing sidewalks along the southbound lane of Somis Road, and the project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road. Therefore, the project would minimize traffic impacts by incorporating pedestrian and bicycle infrastructure.
CTM-3.3 Regional Destination Focus for Bicycle Network. The County shall encourage the development of a bicycle network that connects to regional destinations such as parks, trails, educational institutions, employment centers, transit, park and ride lots, and tourist destinations.	**Consistent**. The project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road, which provide connections to the larger bicycle lane network throughout Camarillo.
CTM-3.10 Bicycle Storage Facilities. The County shall require adequate bicycle storage facilities (e.g., bicycle racks, lockers) for discretionary development as determined by allowable land uses at a given site.	**Consistent.** The project would include approximately 379 bicycle parking spaces.

Policy	Project Consistency
CTM-4.2 Alternative Transportation. The County shall encourage bicycling, walking, public transportation, and other forms of alternative transportation to reduce VMT, traffic congestion, and GHG emissions.	**Consistent.** The proposed project includes farmworker housing within 0.25 mile of local-serving retail and restaurants, the Camarillo Public Library, Rancho Campana High School, and agricultural fields. The project also includes an on-site network of meandering pedestrian walkways, approximately 379 bicycle parking spaces, and recreational amenities including community centers, play fields, tot lots/playgrounds, a basketball court, and a community garden area. The project would connect to existing sidewalks along the southbound lane of Somis Road, and the project site is within 375 feet of existing Class II bicycle lanes along Las Posas Road and North Lewis Road. Therefore, alternative transportation would available to reach numerous destinations.
CTM-6.4 Facilities for Emerging Technologies. The County shall support the development of alternative fueling stations (e.g., electric and hydrogen) and vehicle-to-infrastructure (V2I) technology for emerging technologies.	**Consistent.** In accordance with Section 4.106.4.2 of 2019 CALGreen, the project would be required to designate ten percent of parking spaces (i.e., 66 spaces) for electric vehicle charging spaces capable of supporting future electric vehicle supply equipment.
CTM-6.5 Electric Vehicle Charging Stations. The County shall support the installation of electric vehicle charging stations, where feasible, at County facilities, parking lots, park-and-ride lots, truck stops, and new development.	**Consistent.** In accordance with Section 4.106.4.2 of 2019 CALGreen, the project would be required to designate ten percent of parking spaces (i.e., 66 spaces) for electric vehicle charging spaces capable of supporting future electric vehicle supply equipment.
PFS-5.4 Solid Waste Reduction. The County shall support and promote solid waste reduction, recycling, and composting efforts, including food waste reduction in cases where consumable food can be redistributed rather than disposed.	**Consistent**. The project would provide recycling facilities for residents.
COS-3.2 Tree Canopy. The County shall encourage the planting of trees and the protection of existing urban forests and native woodlands, savannahs, and tree canopy throughout the county, including along State or County designated scenic roadways and in residential and commercial zones throughout the county, especially those located within designated disadvantaged communities.	**Consistent.** As shown in Figure 2-6 in Section 2, *Project Description*, the project includes planting of approximately 242 trees throughout the project site. As discussed in Section 4.3, *Biological Resources*, due to the disturbed nature of the project site, the project would not adversely impact urban forests, native woodlands, savannahs, or tree canopy.
COS-8.6 Zero Net Energy and Zero Net Carbon Buildings. The County shall support the transition to zero net energy and zero net carbon buildings, including electrification of new buildings.	**Consistent**. The project would be constructed in accordance with the 2019 Building Energy Efficiency Standards, which implement the State's vision for zero net energy new residential construction.
COS-8.7 Sustainable Building Practices. The County shall promote sustainable building practices that incorporate a "whole systems" approach for design and construction that consumes less energy, water, and other nonrenewable resources, such as by facilitating passive ventilation and effective use of daylight.	**Consistent.** The project would be constructed in accordance with 2019 CALGreen, which includes requirements for sustainable building practices.
COS-8.8 Renewable Energy Features in Discretionary Development. The County shall encourage the integration of features that support the generation, transmission, efficient use, and storage of renewable energy sources in discretionary development.	**Consistent**. In accordance with Section 150.1(b)14 of the 2019 Building Energy Efficiency Standards, the project would be required to install PV solar panels that generate an amount of electricity equal to expected electricity usage.

Policy	Project Consistency
COS-8.9 Urban Tree Canopy Improvements for Energy Conservation. The County shall encourage discretionary development to include the planting of shade trees on each property and within parking areas to reduce radiation heat production.	**Consistent.** As shown in Figure 2-6 in Section 2, *Project Description*, the project includes planting of approximately 242 trees throughout the project site to provide shading, which would reduce radiation heat production.
COS-9.1 Open Space Preservation. The County shall preserve natural open space resources through: ▪ The concentration of development in Urban Areas and Existing Communities; ▪ Use of cluster or compact development techniques in discretionary development adjacent to natural open space resources; ▪ Maintaining large lot sizes in agricultural areas, rural and open space areas; ▪ Discouraging conversion of lands currently used for agricultural production or grazing; limiting development in areas constrained by natural hazards; and ▪ Encouraging agricultural and ranching interests to maintain natural habitat in open space areas where the terrain or soil is not conducive to agricultural production or grazing.	**Consistent.** As discussed in Section 4.2, *Agricultural Resources – Soils*, of this EIR, the project would result in significant and unavoidable impacts to Important Farmland. However, the project's design includes clustering of the housing complex features to the extent feasible and, therefore, the project's impacts to agricultural land would be reduced to the maximum extent possible.
COS-9.3 Open Space Preservation. The County shall place a high priority on preserving open space lands for recreation, habitat protection, wildlife movement, flood hazard management, public safety, water resource protection, and overall community benefit.	**Consistent**. The project includes development on existing agricultural lands. Therefore, the project would not result in the conversion of open space land to non-open space use.
HAZ-10.5 Air Pollution Impact Mitigation Measures for Discretionary Development. The County shall work with applicants for discretionary development projects to incorporate bike facilities, solar water heating, solar space heating, incorporation of electric appliances and equipment, and the use of zero and/or near zero emission vehicles and other measures to reduce air pollution impacts and reduce GHG emissions.	**Consistent**. The project would include approximately 379 bicycle parking spaces, and in accordance with Section 4.106.4.2 of 2019 CALGreen, the project would be required to designate ten percent of parking spaces (i.e., 66 spaces) for electric vehicle charging spaces capable of supporting future electric vehicle supply equipment.
HAZ-11.9 Urban Greening. The County shall promote the use of urban greening techniques, such as cool pavement technology, parking lot shading, landscaping, and other methods to offset climate change impacts and reduce GHG emissions for discretionary development and County-initiated projects.	**Consistent.** As shown in Figure 2-6 in Section 2, *Project Description*, the project includes planting of approximately 242 trees throughout the project site to provide parking lot shading and landscaping, which would support urban greening.
WQ-3.1 Non-Potable Water Use. The County shall encourage the use of non-potable water, such as tertiary treated wastewater and household graywater, for industrial, agricultural, environmental, and landscaping needs consistent with appropriate regulations.	**Consistent.** The project would help the County be consistent with this policy because the proposed CWWTF would produce recycled, non-potable water to irrigation purposes at adjacent agricultural fields. Additionally, the project includes use of a landscaping plant palette with drought-tolerant plants and would utilize water-efficient irrigation systems to help reduce the need of potable water at the proposed housing complex.

Policy	Project Consistency
WQ-3.2 Water Use Efficiency for Discretionary Development. The County shall require the use of water conservation techniques for discretionary development, as appropriate. Such techniques include low-flow plumbing fixtures in new construction that meet or exceed the state Plumbing Code, use of graywater or reclaimed water for landscaping, retention of stormwater runoff for direct use and/or groundwater recharge, and landscape water efficiency standards that meet or exceed the standards in the California Model Water Efficiency Landscape Ordinance.	**Consistent.** The project would be constructed in accordance with 2019 CALGreen, which requires incorporation of water conservation and water efficiency features to achieve a 20 percent reduction in baseline indoor water use and compliance with the current California Department of Water Resources Model Water Efficient Landscape Ordinance (Title 23 California Code of Regulations Section 492.7). The project includes use of a landscaping plant palette with drought-tolerant tree and shrub species and would utilize water-efficient irrigation systems such as bubblers or drip irrigation. In addition, the project would be required to comply with the County's Landscape Design Criteria, which supersedes the County's Guide to Landscape Plans, for all landscaped parking areas pursuant to Ventura County Code Section 8108-5.14.3 (County of Ventura 1992).

Source: County 2020a

Emissions Quantification. As described above, compliance with plans, policies, and regulations adopted for the purpose of reducing GHG emissions indicates that project-related GHG emissions would be less than significant. Quantitative calculations of GHG emissions associated with the proposed project are provided in this subsection for informational purposes only in accordance with the recommendation of CEQA Guidelines Section 15064.4.

As shown in Table 4.11-5, construction activities associated with the project would generate an estimated 2,098 MT of CO_2e. When amortized over a 30-year period (the estimated project lifetime), construction of the project would generate approximately 70 MT of CO_2e per year.

Table 4.11-5 Estimated Construction Emissions

Construction Year	Annual Emissions MT of CO_2e
2021	418.7
2022	638.8
2023	629.5
2024	410.6
Total	2,097.6
Amortized over 30 years	**69.9**

Note: See Appendix C for modeling results. Some numbers may not add up precisely due to rounding considerations.

Table 4.11-6 combines the combined construction and operational GHG emissions associated with the proposed project. As shown therein, annual emissions from the proposed project would be 3,342 MT of CO_2e per year.

Table 4.11-6 Combined Annual GHG Emissions

Emission Source	Annual Emissions (MT of CO_2e)
Construction[1]	69.9
Operational	
Area	4.5
Energy[2, 3]	607.0
Solid Waste	83.3
Stationary[4]	2.0
Water[2, 5]	124.2
Mobile	
CO_2 and CH_4	2,417.4
N_2O	34.9
Total	**3,343.2**

[1] Amortized over a 30-year period.

[2] Emissions account for the continuing effects of the State Renewable Portfolio Standards program, which mandates 40 percent renewable energy procurement from eligible sources by 2024 (Senate Bill 100).

[3] Emissions account for compliance with Section 150.1(b)14 of the 2019 Building Energy Efficiency Standards, which mandates the installation of solar photovoltaic systems on all new multi-family residential uses three stories or shorter that generate an amount of electricity equal to expected electricity usage.

[4] Emissions generated by monthly testing of the proposed emergency generator.

[5] Emissions account for compliance with 2019 CALGreen, which mandates a 20 percent reduction in indoor water use as compared to calculated baseline levels for new residential uses and compliance with the current California Department of Water Resources Model Water Efficient Landscape Ordinance, which requires the use of water-efficient irrigation systems.

See Appendix C for emissions modeling results.

Summary. As described above, compliance with plans, policies, and regulations adopted for the purpose of reducing GHG emissions indicates that project-related GHG emissions would be less than significant. Quantitative calculations of GHG emissions associated with the proposed project are provided in this subsection for informational purposes only in accordance with the recommendation of CEQA Guidelines Section 15064.4.

- **Hazards and Hazardous Materials.** Section 4.8, *Waste Treatment – Solid Waste Facilities*, of the EIR discusses potential public/human health effects associated with the proposed CWWTF. Construction of the project would involve the temporary use and transport of hazardous materials used in the operation of required construction equipment. Hazardous materials used during operation of the housing complex would be limited to typical household and landscaping materials. The project would comply with applicable federal, state, and City regulations that regulate the handling, transport, and disposal of hazardous materials. Impacts would be less than significant.
- **Hydrology/Water Quality.** According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06111C0932F, the project site is not located within a Special Flood Hazard Area (a 100-year floodplain) (FEMA 2015) and the proposed housing complex would be located outside the 500-year floodplain.

  As discussed in Section 4.9, *Water Resources – Surface Water Quality*, of this EIR, compliance with the NPDES *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (*Construction General Permit*) (Order 2009-0009, as amended by Orders 2010-0014-DWQ and 2012-006-DWQ) Best Management Practices (BMPs) for stormwater control and/or a project-specific stormwater pollution prevention plan (SWPPP)

would control and minimize erosion and siltation during project construction. Additionally, operation of the project would not directly or indirectly cause stormwater quality to exceed water quality objectives or standards in the applicable Ventura County Municipal Separate Storm Sewer System (MS4) Permit. Impacts due to potential erosion/siltation hazard and flooding hazard would be less than significant.

- **Mineral Resources.** The project site is located in an area predominately used for agricultural cultivation and residences. The area zoned as Mineral Resource Protection (MRP) overlay zone closest to the project site is approximately 6.5 miles to the west (County 2020). The project would not preclude the extraction of mineral resources. Therefore, no impact would occur.
- **Population/Housing.** The project site contains residential and ancillary agriculture buildings. However, project would not demolish or alter the existing on-site residences. Therefore, the project would not involve the displacement of existing residences or people and no impact would occur.
- **Public Services.** The Ventura County Sheriff Department and Ventura County Fire Department would provide police, fire, and emergency medical services to the project site. Additionally, the project site would be served by Somis Union School District and Oxnard Union High School District. Additional demand to public services would be offset by the payment of property taxes, as well as school fees pursuant to Section 65996 of the California Government Code. The project would not include or require the need for new or expanded public service facilities or schools and, therefore, no associated environmental impacts would occur. Impacts to public services would be less than significant.
- **Recreation.** The proposed housing complex would increase demand for parklands and recreation centers. However, the project would not directly affect any existing parks and would include on-site recreational facilities such as community center rooms, playgrounds/tot lots, play fields, a community garden, outdoor courtyards, and a basketball court. These on-site amenities would offset project demand on recreational facilities in the region. In addition, the project applicant would be required to pay fees in accordance with the Quimby Act (Government Code Section 66477). Therefore, impacts to recreational facilities would be less than significant.
- **Tribal Cultural Resources.** Under California Assembly Bill (AB) 52, lead agencies are required to consult with "California Native American tribe[s] that [are] traditionally and culturally affiliated with the geographic area of the proposed project." On June 30, 2020, the County sent an AB 52 consultation letter to Julie Tumamait-Stenslie of the Barbareño-Ventureño Band of Mission Indians (Appendix L). The consultation letter included project plans and an aerial map of the project site, and requested information regarding concerns or recommendations related to the proposed project. On July 1, 2020, Ms. Tumamait-Stenslie contacted the County to request formal consultation. At the time of publication of this Draft EIR for public review, formal AB 52 consultation is currently underway. Per AB 52, this consultation process must be completed before the Final EIR can be certified. The EIR will be updated, as appropriate, after AB 52 consultation is completed.
- **Utilities/Service Systems.** The proposed housing complex would be served potable water by Ventura County Water Works District No. 19 (Water District). The project site is currently located within the Water District's service area and existing water supply pipelines and facilities are present in the project site vicinity. The Water District provided a letter stating that it has the ability to provide water to the housing complex (Water District 2019). Wastewater (sewage) generated by the housing complex would be treated by the proposed CWWTF. The housing

complex, including the CWWTF, would require electrical service, which would be provided by Southern California Edison. Cable and telephone service would be provided to the housing complex by Spectrum. No natural gas service would be provided to or required by the housing complex. The proposed development would generate municipal solid waste from the proposed 360 residential units. Solid waste would be transported to either Toland Road Landfill or Simi Valley Landfill and Recycling Center, which have approximately 10.6 million and 88 million cubic yards of remaining capacity, respectively (California Department of Resource Recycling and Recovery 2002, 2012). Impacts related to solid waste management would be less than significant. Impacts to utilities/service systems would be less than significant.

- **Wildfire.** According to the Fire Hazard Severity Zone maps created by the California Department of Forestry and Fire Protection (CAL Fire), the project site is adjacent to a Moderate Fire Hazard Severity Zone, but is not located within a Very High Fire Hazard Severity Zone (CAL Fire 2007). The project site is also not located in or near a Hazardous Watershed Fire Area. The proposed project would comply with the Ventura County Building Code and Ventura County Fire Code standards related to emergency access and fire protection. The proposed project would also be subject to conditions of approval to ensure the project is in conformance with current California State Law and the Ventura County Fire Code. Therefore, impacts would be less than significant.

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5 Other CEQA Required Discussions

This section discusses growth-inducing impacts and irreversible environmental impacts that would be caused by the proposed project.

5.1 Growth Inducement

Section 15126(d) of the CEQA Guidelines requires a discussion of a project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. The proposed project's growth inducing potential is therefore considered significant if project-induced growth could result in significant physical effects in one or more environmental issue areas.

5.1.1 Population Growth

The proposed 360-unit housing complex would result in an estimated population of 1,215 (Jensen 2019). As determined by the Southern California Association of Governments (SCAG), the January 2020 population of unincorporated Ventura County is 102,000 and the population growth forecast is 113,600 in 2040 (SCAG 2016), for an increase of 11,600 persons over the next 20 years. The estimated 1,215 residents from the proposed project represents 11 percent of the estimated population increase in the area through 2040.

The project is intended to provide housing for current farmworkers rather than induce people to move to Ventura County. The project would provide affordable housing for local farmworkers and their families, who likely currently live and work in Ventura County. Therefore, the project's population could be accommodated within the unincorporated Ventura County growth projections. Impacts associated with population increase from the proposed project would be less than significant.

Moreover, as discussed in Section 4.1, *Air Quality*, and under "Greenhouse Gas Emissions" in Section 4.10, *Impacts Found Not to be Significant*, development and occupancy of the proposed project would not generate air quality or GHG emissions that would result in a significant impact. Additionally, the proposed housing complex would be adjacent to existing development and agricultural fields. Due to the active agricultural and urbanized setting of the project site, the project area lacks significant scenic resources, native biological resources, known archaeological resource remains, surface water, or other environmental resources. Therefore, any population growth associated with the project would not result in significant long-term physical environmental effects.

5.1.2 Economic Growth

The proposed project would generate temporary employment opportunities during construction. Because construction workers would be expected to be drawn from the existing regional work force, construction of the project would not be growth-inducing from a temporary employment standpoint. The purpose of the project is to provide housing for current farmworkers in the County and, therefore, the project would not cause an exceedance in the regional employment growth forecasts.

The proposed project would not be expected to induce substantial economic expansion to the extent that direct physical environmental effects would result. Moreover, the environmental effects associated with any future development in or around the project site would be addressed as part of the CEQA environmental review for such development projects.

5.1.3 Removal of Obstacles to Growth

The project site is located in an area that is served by existing infrastructure. The Ventura County Water Works District No. 19 (Water District) would provide potable water to the proposed housing complex. The project site is currently located within the Water District's service area. The housing complex, including the CWWTF, would require electrical service, which would be provided by Southern California Edison. Cable and telephone service would be provided to the housing complex by Spectrum. No natural gas service would be provided to or required by the housing complex. Applicable utility agencies/companies have indicated the ability to serve the proposed project, with the exception of wastewater (sewage) disposal. Minor improvements to water, electrical, cable, and telephone infrastructure could be needed, but would be sized to specifically serve the proposed project.

The housing complex would be accessible from Somis Road via easements located on and adjacent to the project site. The driveways would be adequate to serve the project and would accommodate expected traffic volumes and project site access needs, as discussed in Section 4.7, *Transportation*, of this EIR.

As discussed in Section 2.5.2, *Community Wastewater Treatment Facility*, wastewater generated by the housing complex would be treated by the proposed on-site CWWTF, which would be designed to treat wastewater generated by the housing complex to tertiary treatment standards. The on-site CWWTF would treat all wastewater generated by the housing complex, which would be constructed in three phases. The CWWTF would be constructed as part of Phase 1 and would be expanded as necessary to accommodate the needs of the housing complex as additional apartments are constructed during Phases 2 and 3. At full occupancy of the housing complex (360 units), the CWWTF would treat an estimated average daily flow of 99,000 gallons of wastewater per day (Water Resource Engineering Associates [WREA] 2019) to accommodate the needs of the proposed housing complex. Although the proposed CWWTF would be built to the capacity to only serve the project, in the future, like any infrastructure facility, the CWWTF could be expanded to accommodate additional future growth in the vicinity of the project site. Any future expansion would require approvals from the County, the Los Angeles Regional Water Quality Control Board (RWQCB), and the California State Water Resources Control Board (SWRCB), as discussed in Section 2.7, *Required Approvals*, of this EIR. Such approvals would be discretionary and subject to CEQA review. Any future expansion of the CWWTF would presumably be sized to meet any future expansion of the on-site housing complex (beyond 360 units), which would also be discretionary and subject to CEQA. Based on these facts, any growth inducing impacts due to the removal of obstacles to growth would not be significant.

5.2 Irreversible Environmental Effects

The CEQA Guidelines require that EIRs contain a discussion of significant irreversible environmental changes. This section addresses non-renewable resources, the commitment of future generations to the proposed uses, and irreversible impacts associated with the proposed project.

The proposed project would include development on a portion of a mostly undeveloped project site in unincorporated Ventura County. Construction and operation of the project would involve an irreversible commitment of construction materials and non-renewable energy resources. For example, the project would involve the use of building materials and energy, some of which are non-renewable resources, to construct the 360-unit housing complex. Consumption of these resources would occur with any development in the region and are not unique to the proposed project.

The proposed project would also irreversibly increase local demand for non-renewable energy resources such as petroleum products. However, increasingly efficient building design would offset this demand to some degree by reducing energy demands of the project. As discussed in Section 2, *Project Description*, the project would include designed to encourage walking within the housing complex via a meandering trails system, as well as bicycle use with 379 bicycle parking spaces throughout the housing complex. As discussed in 4.10, *Impacts Found Not to be Significant*, under "Energy," the project would comply with applicable energy conservation requirements. The project would be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations [CCR], *California's Energy Efficiency Standards for Residential and Nonresidential Buildings*) and the California Green Building Standards Code (CCR Title 24, Part 11). The California Energy Code provides energy conservation standards for all new residential buildings constructed in California, and the Green Building Standards Code requires solar access (for efficient use of solar panels in the future), natural ventilation, and stormwater capture.

The project would also increase demand for water supply and the need for wastewater disposal and treatment. The project would minimize water demand by including drought-tolerant plants in the landscape palette and a weather-sensing "smart controller" to monitor irrigation water and manage daily water consumption. Treated wastewater from the proposed CWWTF would be used for irrigating adjacent agricultural fields, which would help reduce the usage of potable water and/or groundwater needed to water such fields.

Consequently, the project would not use unusual amounts of energy or construction materials and impacts related to consumption of non-renewable and slowly renewable resources would be less than significant. Again, consumption of these resources would occur with any development in the region and is not unique to the proposed project.

CEQA requires decision makers to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve a project. Although the conversion of agricultural resources is not technically irreversible, it is irreversible for practical purposes. The analysis contained in this EIR concludes that the proposed project would result in a significant and unavoidable impact to agricultural soils, as discussed in Section 4.2, *Agricultural Resources – Soils*, impacts would remain significant and unavoidable due to this irreversible loss. However, the project's benefits include development of a financially viable affordable residential community for lower-income farmworkers and their families in Ventura County to accommodate broad market needs, which balances the irreversible effects to agricultural resources.

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6 Alternatives

As required by Section 15126.6 of the CEQA Guidelines, this EIR examines a range of reasonable alternatives to the proposed project that would attain most of the basic project objectives (stated in Section 2 of this EIR and below) but would avoid or substantially lessen the significant adverse impacts.

CEQA Guidelines Section 15126.6 states, "[a]n EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation."

As discussed in Section 2, *Project Description*, the objectives for the proposed project, are as follows:

1. Develop a financially viable affordable residential community for lower-income farmworkers and their families in Ventura County to accommodate broad market needs.
2. Provide affordable housing units for farmworkers that will help meet the identified need assigned to Ventura County pursuant to California State Law and adopted in the County's Housing Element.
3. Support the local agricultural industry by providing local farmworker housing proximate to agricultural operations in Ventura County.
4. Provide a variety of apartment sizes to meet various family sizes.
5. Arrange the proposed apartment buildings and on-site amenities in a manner that is logical and promotes efficient use of the housing complex property.
6. Provide recreational opportunities for future project residents with on-site play fields, tot lots/playgrounds, active recreation opportunities, a community garden area, meeting rooms, and a network of meandering pedestrian walkways.
7. Minimize proposed building footprints and other impervious surfaces to accommodate on-site landscaped common space for future project residents.
8. Design an efficient internal circulation system that is safe for pedestrians and bicyclists.
9. Locate affordable housing in a location that provides convenient access to nearby services such as library, schools, commercial centers, and religious institutions.
10. Develop the project site in a manner that would not adversely affect neighboring land uses or infrastructure, including with regard to:
    - □ Water and sanitation services;
    - □ Land use compatibility; and
    - □ The scale of the project.
11. Develop the project site in a manner that would minimize affects from neighboring land uses to the proposed housing complex and future project residents.
12. Avoid modification to the existing Bell Ranch residences and agricultural buildings.

Included in this analysis are two alternatives, including the CEQA-required "no project" alternative and a reduced footprint alternative that may reduce project-related environmental impacts as identified in this EIR. Table 6-1 provides a summary comparison of the development characteristics of the proposed project and each alternative. Detailed descriptions of the alternatives are included in the impact analysis for each alternative. The potential environmental impacts of each alternative are analyzed in Sections 6.1 and 6.2. Additional alternatives that were considered, but rejected as infeasible are discussed in Section 6.3.

Table 6-1 Comparison of Project Alternatives to the Proposed Project

Feature	Proposed Project	Alternative 1: No Project	Alternative 2: Reduced Footprint
Dwelling units	360 units	0 units	360 units
Development footprint	18.73 acres	None	17.01 acres
Community Wastewater Treatment Facility (CWWTF)	Conventional membrane bioreactor package (1,488 square feet)	None	Conventional membrane bioreactor package (1,488 square feet)
Amenities	Community centers, play fields, tot lots/playgrounds, a basketball court, a community garden area, pedestrian walkways	None	One community center, one playground, pedestrian walkways

6.1 Alternative 1: No Project Alternative

6.1.1 Description

The No Project Alternative assumes that the proposed housing complex, community wastewater treatment facility (CWWTF), and other amenities associated with the proposed project would not be constructed. The portions of the site proposed to be converted to farmworker housing would continue to be used for agricultural production. Similar to the proposed project, the existing two residences and ancillary agricultural buildings would remain on the site. However, the No Project Alternative would not fulfill Project Objectives 1 through 12. This alternative would not provide affordable housing for farmworkers in Ventura County.

6.1.2 Impact Analysis

a. Air Quality

The No Project Alternative would not include development of any of the land uses included in the proposed project and no criteria air pollutant emissions would be generated. In addition, no toxic air contaminants (TACs) would be generated, as the No Project Alternative would not involve generation of diesel particulate matter (DPM) exhaust emissions from heavy-duty diesel equipment. The site would remain in agricultural production and long-term air pollutant emissions would remain similar to existing conditions.

As discussed in Section 4.1, *Air Quality*, construction activities associated with the proposed project would generate temporary air pollutant emissions associated with heavy-duty equipment and vehicle trips, but emissions would be less than significant. Nevertheless, because ROC and NO_X

emissions would exceed 25 pounds per day, implementation of Mitigation Measure AQ-1 (ROC and NO_X Reduction Measures) is recommended for the project. The proposed project would also generate operational criteria air pollutant emissions, although such emissions would be less than significant.

This alternative would have no impact to air quality. Thus, the impact would be lower than that of the proposed project and project mitigation would not apply.

b. Agricultural Resources – Soils

Under the No Project Alternative, construction of the housing complex would not occur and no agricultural lands would be converted to nonagricultural uses. As described in Section 4.2, *Agricultural Resources – Soils*, the proposed project would result in the direct conversion of 18.2 acres of Prime Farmland or Farmland of Statewide Importance to nonagricultural use, which exceeds the 5-acre significance threshold for impacts to Prime Farmland or Farmland of Statewide Importance (see Table 4.2-2). Thus, the proposed project would result in significant and unavoidable impacts to agricultural resources.

No impact to agricultural resources would occur under the No Project Alternative. Thus, the significant and unavoidable impact to agricultural resources associated with the proposed project would be avoided.

c. Biological Resources

Under the No Project Alternative, the current agricultural operations occurring on the project site would continue and no impact to special-status species, protected trees, nesting birds, or jurisdictional waters/wetlands would occur. As discussed in Section 4.3, *Biological Resources*, because the project site is previously disturbed and currently in active agricultural production, the proposed project would result in less than significant impacts to special-status species, protected trees, or nesting birds. In addition, it would have no impact to potentially jurisdictional waters or wetlands.

This alternative would have no impact to biological resources. Thus, the impact would be lower than that of the proposed project and project mitigation would not apply.

d. Cultural Resources – Historic

The project site was once part of a larger ranch established in the 19th century. As discussed in Section 4.4, *Cultural Resources – Historic*, the existing two residences and ancillary agricultural buildings at 2789 Somis Road are eligible for listing in the California Register of Historical Resources (CRHR) and as a Ventura County Landmark. This portion of the project site is therefore presumed to be a historical resource under CEQA.

The No Project Alternative would not change any aspects of the project site's surroundings and would have no impact to historical resources. The proposed project would not remove or change aspects of existing on-site buildings. It would change aspects of the surroundings on the project site; however, because the setting has already largely changed since the historical period due to ongoing subdivision and new construction, the proposed project would result in a less than significant impact to historical resources under CEQA.

The No Project Alternative would have less impact than the proposed project with respect to cultural resources, though the proposed project's impacts would be less than significant.

e. Noise and Vibration

Because the No Project Alternative would not involve construction activities, construction-related noise and vibration would not occur. Any noise and vibration generated by current agricultural activities would continue to occur, but the No Project Alternative would not increase noise generated on-site or in the site vicinity. As discussed in Section 4.5, *Noise and Vibration*, the proposed project would generate construction noise and vibration via heavy-duty equipment use and construction traffic, as well as operational noise related to stationary heating, ventilation, and air conditioning (HVAC) equipment, emergency generator and blower associated with the CWWTF, and increased traffic noise.

The No Project Alternative would have less impact than the proposed project with respect to noise and vibration, though the proposed project's impacts would be less than significant.

f. Public Health

In comparison, the No Project Alternative would not include the development of a CWWTF on the project site so it would have no impact related to public health. As discussed in Section 4.6, *Public Health*, the proposed project's CWWTF would be subject to specific building codes, water quality standards, and other regulations protecting public health. Impacts under the proposed project would be less than significant with regulatory compliance.

The No Project Alternative would have less impact than the proposed project with respect to public health, though the proposed project's impacts would be less than significant.

g. Transportation

Under the No Project Alternative, no increase in vehicle miles traveled (VMT) or traffic would occur. As discussed in Section 4.7, *Transportation*, implementation of the proposed project would result in approximately 7.3 million annual VMT, or approximately 20,000 daily VMT. The project could add 1,120 additional people to the area; therefore, this is approximately 17.8 daily VMT per capita. The project would therefore yield a daily VMT per capita of approximately 12 percent less than the Ventura County 2040 average of 20.2 miles per capita per day. The proposed project would result in less than significant impacts related to transportation, including VMT.

The No Project Alternative would have no impact related to safety or design of roads or VCFPD adopted Private Road Guidelines because it would not involve the construction of roads. In addition, it would have no impact on other transit facilities (pedestrian, bicycle, bus) because it would not introduce new development to the project site. As discussed in Section 4.7, the proposed project would have less than significant impacts related to safety and design of roads, Ventura County Fire Protection District (VCFPD) adopted Private Road Guidelines, and other transit facilities.

h. Waste Treatment and Disposal Facilities – Solid Waste

The No Project Alternative would not involve a CWWTF or other solid waste facilities and, therefore, would result in no impact related to solid waste facilities. As discussed in Section 4.8, *Waste Treatment and Disposal Facilities – Solid Waste Facilities*, the proposed project's CWWTF would temporarily store biosolids generated on the project site. The proposed project would result in less than significant impacts related to solid waste facilities because the project would comply with applicable state and local requirements. Its design would be subject to review by and approval from the Environmental Health Division of the Resource Management Agency of the County of Ventura.

The No Project Alternative would have less impact than the proposed project with respect to waste treatment and disposal facilities, though the proposed project's impacts would be less than significant.

i. Water Resources – Surface Water Quality

Under the No Project Alternative, there would be no change to land uses at the project site and no impact to surface water quality. As discussed in Section 4.9, *Water Resources – Surface Water Quality*, construction and operation of the proposed project would increase contaminants in stormwater runoff due to ground disturbance and changes in ground cover. With regulatory compliance, proposed project impacts to surface water quality would be less than significant.

Currently, the agricultural orchards adjacent to the project site are irrigated with relatively low-quality groundwater pumped from a private well. Under the No Project Alternative, this irrigation regime would continue. Under the proposed project, recycled water produced at the CWWTF would be beneficially reused to improve the quality of agricultural irrigation water at the adjacent orchards. The No Project Alternative would not include this beneficial surface water quality impact associated with the proposed project.

The No Project Alternative would have no impact with respect to surface water quality; however, because it would not include the proposed project's benefits, its impact would be adverse compared to the proposed project.

j. Land Use and Planning

The No Project Alternative would not change any land uses at the project site or create any conflicts with land use plans and policies. As discussed in Section 4.10, *Land Use and Planning*, the proposed project would also be consistent with the applicable General Plan goals and policies and would not require a General Plan amendment. The impact of the No Project Alternative with respect to land use and planning would be similar to that of the proposed project.

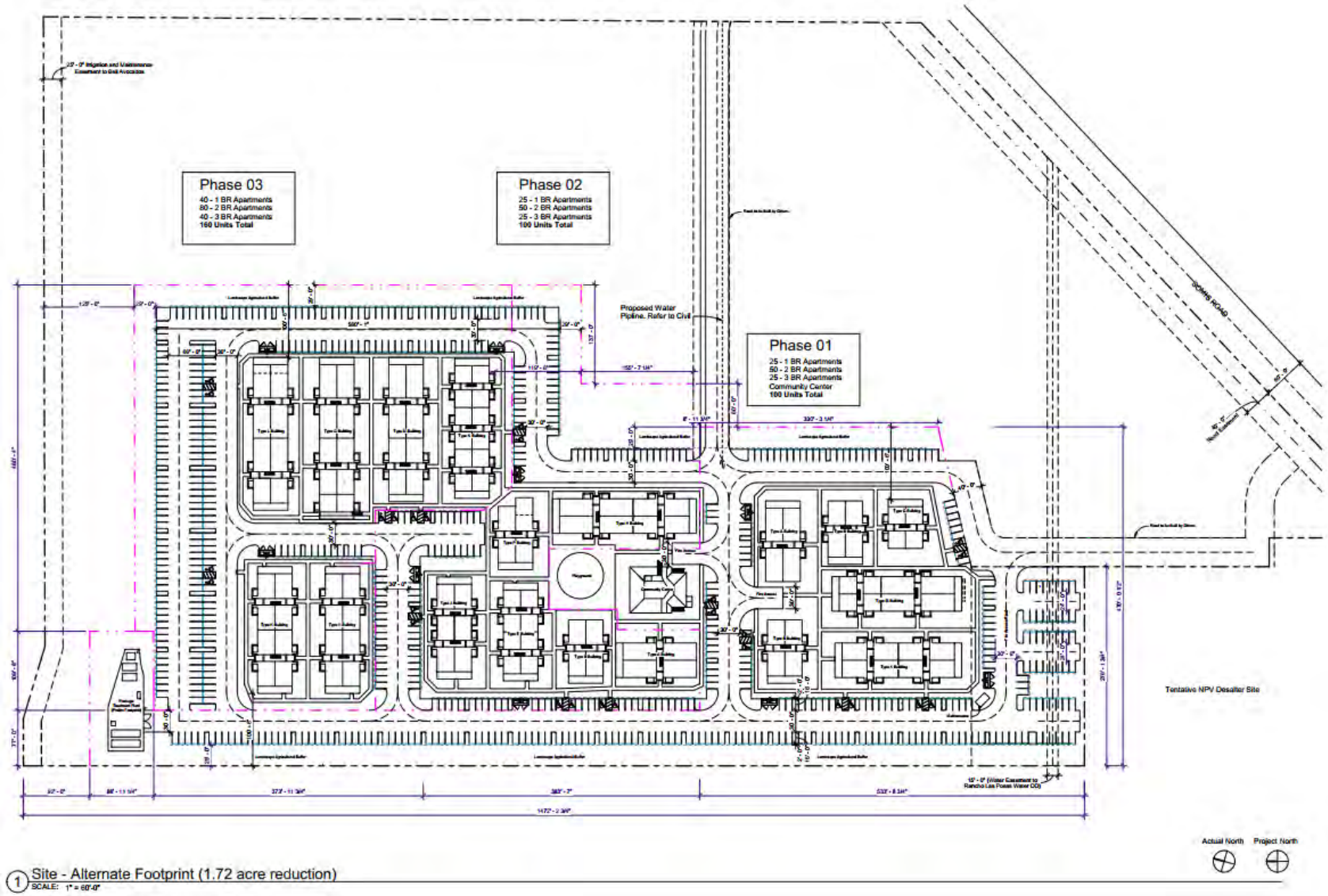
6.2 Alternative 2: Reduced Footprint

6.2.1 Description

The Reduced Footprint Alternative (Alternative 2) assumes that the proposed housing complex, community wastewater treatment facility (CWWTF), and some amenities associated with the proposed project would be constructed within a smaller development footprint on the project site at 2789 Somis Road. The development footprint would be reduced by 1.72 acres when compared to the proposed project. Similar to the proposed project, the two existing residences and ancillary agricultural buildings would remain on the site. Also similar to the proposed project, this alternative would include 360 dwelling units. However, only one of the two community centers included in the proposed project would be constructed under Alternative 2. Furthermore, Alternative 2 would not include the basketball court, play fields, or community garden included in the proposed project.

Figure 6-1 shows the site plan for Alternative 2.

Figure 6-1 Alternative 2 Site Plan



Like the proposed project, Alternative 2 would provide affordable housing for farmworkers in Ventura County. However, it would not fulfill Project Objective 6 because it would not provide all of the recreational opportunities for future project residents included under the proposed project.

6.2.2 Impact Analysis

a. Air Quality

Under Alternative 2, less construction activity would be required due to the reduced footprint (e.g., grading, material export, paving), thereby yielding reduced criteria air pollutant emissions. Like the proposed project, this alternative would result in short-term criteria air pollutant emissions associated with construction activities (e.g., heavy-duty equipment, construction personnel trips). Similar to the proposed project, ROC and NO_X emissions would likely exceed 25 pounds per day so implementation of Mitigation Measure AQ-1 (ROC and NO_X Reduction Measures) would also be recommended for Alternative 2.

Construction-related activities associated with Alternative 2 would also result in emissions of short-term TACs and potential odors from off-road, heavy-duty diesel equipment for site preparation grading, building construction, and other construction activities. Similar to the proposed project, these impacts would be less than significant.

Similar to the proposed project, Alternative 2 would generate long-term criteria air pollutant emissions associated with operation (e.g., resident vehicle trips, energy use). Like the proposed project's operational emissions, these emissions would not exceed VCAPCD thresholds and impacts would be less than significant.

b. Agricultural Resources – Soils

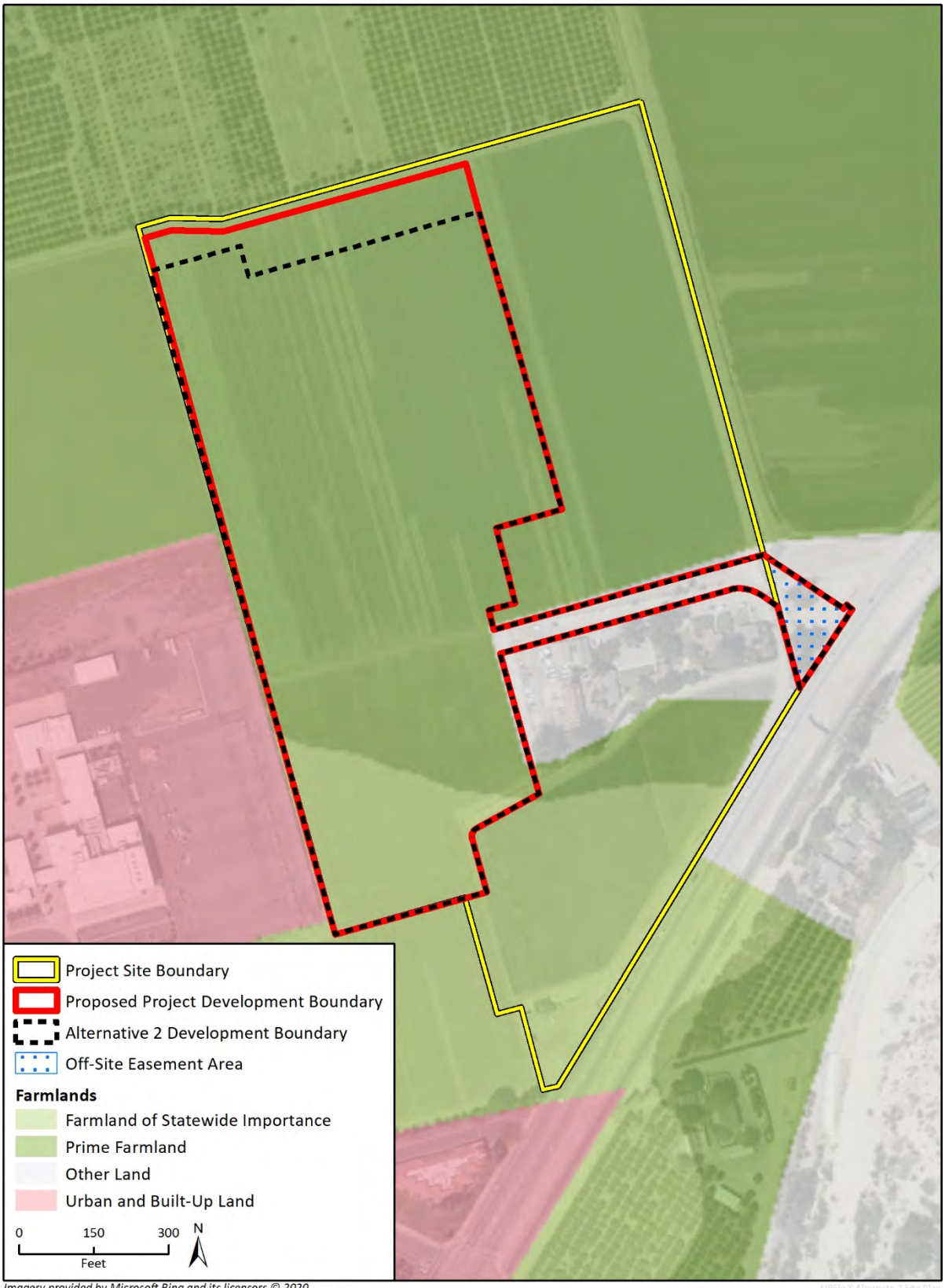
Alternative 2 would result in the direct conversion of 17.01 acres of Prime Farmland or Farmland of Statewide Importance to nonagricultural use. As described in Section 4.2, *Agricultural Resources – Soils*, the proposed project would result in the direct loss conversion of 18.2 acres of Prime Farmland or Farmland of Statewide Importance to nonagricultural use. Figure 6-2 shows the types of Important Farmland present on the project site, the development footprint of the proposed project, and the reduced development footprint of Alternative 2.

Alternative 2 would convert 1.72 fewer acres of Prime Farmland to nonagricultural use. The impact would therefore be reduced. Nevertheless, Prime Farmland conversion under Alternative 2 would continue to exceed the 5-acre significance threshold for impacts to Prime Farmland or Farmland of Statewide Importance (see Table 4.2-2). Consequently, similar to the proposed project, Alternative 2 would result in a significant and unavoidable impact to agricultural resources.

c. Biological Resources

Under Alternative 2, the construction footprint would be 1.72 acres smaller than the proposed project. The development footprints of the proposed project and Alternative 2 would both be located in previously disturbed agricultural land. Therefore, as with the proposed project, Alternative 2 would result in less than significant impacts to special-status species, protected trees, and nesting birds. Similar to the proposed project, Alternative 2 would result in significant impacts to potentially jurisdictional waters that would be mitigated to less than significant levels by implementation of Mitigation Measure BIO-3. Alternative 2's biological impacts would be similar to those of the proposed project.

Figure 6-2 Important Farmland – Proposed Project and Alternative 2



Imagery provided by Microsoft Bing and its licensors © 2020.
Farmland data provided by the Department or Conservation, 2016.

d. Cultural Resources – Historic

Under Alternative 2, the two existing residences and ancillary agricultural buildings, presumed to be historical resources under CEQA, would remain unchanged and in place. Similar to the proposed project, Alternative 2 would change aspects of the surroundings on the project site; however, because the setting has already largely changed since the historical period due to ongoing subdivision and new construction. Therefore, like the proposed project, Alternative 2 would result in a less than significant impact to historical resources.

e. Noise and Vibration

As with the proposed project, construction activities associated with Alternative 2 would generate noise and vibration via heavy-duty equipment use and construction traffic. Alternative 2 would require similar types of construction equipment and personnel as the proposed project and would therefore generate similar construction noise levels, though the overall duration of construction may be incrementally reduced.

Alternative 2 would generate operational noise related to stationary HVAC equipment, emergency generator and blower associated with the CWWTF, and increased traffic noise. These operational noise impacts would be similar to those of the proposed project. Noise associated with outdoor activities (e.g., basketball court, play fields, or community garden) would be incrementally reduced. Noise and vibration impacts associated with Alternative 2 would be less than significant.

f. Public Health

Under Alternative 2, the CWWTF would be the same size and configuration as under the proposed project. As discussed in Section 4.6, *Public Health*, the proposed project's CWWTF would be subject to specific building codes, water quality standards, and other regulations protecting public health. Similar to the proposed project, impacts under Alternative 2 would be less than significant with regulatory compliance.

g. Transportation

Similar to the proposed project, Alternative 2 would involve a farmworker housing complex with 360 dwelling units; therefore, it would generate the same traffic as the proposed project and transportation impacts would be the same. As with the proposed project, daily VMT per capita would be approximately 12 percent less than the Ventura County 2040 average of 20.2 miles per capita per day. In addition, like the proposed project, Alternative 2 would provide 100 percent affordable residential units and would be consistent with the County NCZO farmworker employment criteria so its is presumed to result in a less than significant impact related to VMT. Similar to the proposed project, Alternative 2 would not modify any public roads or intersections and shared access connections would be designed to meet the County Fire Department design standards. Similar to the proposed project, Alternative 2 would result in less than significant impacts related to safety and design of roads, VCFPD adopted Private Road Guidelines, and other transit facilities.

h. Waste Treatment and Disposal Facilities – Solid Waste

Under Alternative 2, the CWWTF would be the same size and configuration as under the proposed project. As discussed in Section 4.8, *Waste Treatment and Disposal Facilities – Solid Waste Facilities*, the CWWTF would temporarily store biosolids generated on the project site. Like the proposed

project, Alternative 2 would result in less than significant impacts related to solid waste facilities because, like the proposed project, facilities would comply with applicable state and local requirements and would be subject to review by and approval from the Environmental Health Division of the Resource Management Agency of the County of Ventura.

i. Water Resources – Surface Water Quality

Construction and operation of Alternative 2 would increase contaminants in stormwater runoff due to ground disturbance and changes in ground cover. Alternative 2 impacts would be similar to those of the proposed project. Because the development footprint of Alternative 2 would be 1.72 acres smaller than that of the proposed project, it would retain 1.72 acres of unpaved land as compared to the proposed project. Alternative 2 would, therefore, generate incrementally less stormwater runoff water. Similar to the proposed project, with regulatory compliance, runoff-related impacts to surface water quality would be less than significant under Alternative 2.

Currently, the agricultural orchards adjacent to the project site are irrigated with relatively low-quality groundwater pumped from a private well. Similar to the proposed project, under Alternative 2, recycled water produced at the CWWTF would be beneficially reused to improve the quality of agricultural irrigation water at the adjacent orchards.

Alternative 2 would have incrementally less impact than the proposed project with respect to surface water quality, though the proposed project's impacts would be less than significant.

j. Land Use and Planning

Similar to the proposed project, Alternative 2 would change the land use at the project site by removing agricultural land from production and introducing a farmworker housing complex. As discussed in Section 4.10, *Land Use and Planning*, the proposed project would be consistent with the applicable General Plan goals and policies and would not require a General Plan amendment. Similarly, Alternative 2 would have less than significant impacts related to land use and planning.

6.3 Alternatives Considered but Rejected

The proposed project would result in a significant and unavoidable impact related to agricultural resources due to the removal of Prime Farmland and Farmland of Statewide Importance. Air quality and biological resources impacts would be less than significant with mitigation. All other impacts would be less than significant without mitigation. This analysis therefore specifically identifies alternatives that would reduce the impact to agricultural resources.

In addition to the reduced footprint alternative analyzed above, alternatives identified by the County and members of the public were considered but found to be infeasible, as described herein.

Reduced Unit Alternative

A reduced unit alternative was considered as a potential reduced alternative to the proposed project. However, because the proposed housing complex would require fixed-cost water utility infrastructure upgrades and a package CWWTF, reducing the number of units would make the project economically infeasible for the non-profit project proponent. According to the project applicant, the cost to extend water service to the project site and develop a package wastewater treatment facility is in excess of $5 million. These costs are incurred at the beginning of the project,

resulting in substantial carrying costs for the builder. Financial feasibility studies indicate that a 360-unit complex is minimally viable.

In addition, a reduced unit alternative would be similar to the Reduced Footprint Alternative (Alternative 2) analyzed above with regard to reducing potential impacts to Agricultural Resources and Air Quality, but not Biological Resources because the eastern driveway would still be required for this alternative. Therefore, such an alternative was rejected from further consideration.

Alternate Site Location

Section 15126.6(f)(2) of the CEQA Guidelines addresses alternative locations for a project. The key question and first step in the analysis is whether any of the significant effects of the proposed project would be avoided or substantially lessened by putting the proposed project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR. Further, CEQA Guidelines Section 15126.6(f)(1) lists several factors that may be taken into account when addressing feasibility of alternatives (any alternative, not just alternative locations) and states, "No one of these factors establishes a fixed limit on the scope of reasonable alternatives." The site has been selected in accordance with Project Objective 3, providing local farmworker housing proximate to agricultural operations in Ventura County, and Project Objective 9, convenient access to nearby services such as a library, schools, commercial centers, and religious institutions. There are no other known available parcels with the necessary attributes to meet project objectives. Development of the proposed project on an alternative agricultural site in Ventura County would likely result in similar environmental impacts that have been identified for the proposed project. As an alternative site with similar environmental characteristics in Ventura County with a willing seller was not found, no further environmental analysis for an alternative site was conducted.

Biologically Superior Alternative

During the comment period for the Notice of Preparation, the California Department of Fish and Wildlife (CDFW) submitted a comment suggesting that the EIR "include a complete discussion of the proposed project and a range of feasible alternatives to avoid or otherwise minimize impacts to sensitive biological resources and wildlife movement areas." Potential impacts to biological resources have since been evaluated. As discussed in Section 4.3, no significant impacts to sensitive biological resources or wildlife movement areas were identified, with the exception of potentially jurisdictional waters. However, impacts to potentially jurisdictional waters cannot be avoided because the eastern driveway is a necessary as part of buildout of the farmworker housing complex project. A biologically superior alternative was rejected because the purpose of this chapter is to identify project alternatives that would reduce significant environmental impacts identified for the proposed project (CEQA Guidelines Section 15126.6[b]).

Calleguas Municipal Water District Alternative

During the comment period for the Notice of Preparation, an individual suggested an alternative that would tie into the Calleguas Municipal Water District (CMWD) for potable water supply. Early in the conceptual stage of the project, a direct connection to CMWD for domestic water supply was considered. However, CMWD is a water wholesaler and will not provide water directly to any development. For this alternative to be feasible, service from a new CMWD turnout would have to go through Ventura County Water Works District No. 19. As confirmed by Water Works District No.

19, a new CMWD turnout to serve a single development would not be allowed. Therefore, the CMWD alternative has been rejected from further analysis.

6.4 Environmentally Superior Alternative

Pursuant to the CEQA Guidelines (15126.6(d)), an EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project to identify the environmentally superior alternative. Table 6-2 indicates whether each alternative's environmental impact is greater than, less than, or similar to that of the proposed project for each of the issue areas studied.

Table 6-2 Impact Comparison of Alternatives

Issue	Proposed Project Impact Classification	Alternative 1: No Project	Alternative 2: Reduced Footprint
Air Quality	Less than Significant with Mitigation Incorporated	+	Less than Significant with Mitigation Incorporated (+)
Agricultural Resources – Soils	Significant and Unavoidable	+	Significant and Unavoidable (+)
Biological Resources	Less than Significant with Mitigation Incorporated	+	Less than Significant with Mitigation Incorporated (=)
Cultural Resources – Historic	Less than Significant	+	Less than Significant (=)
Noise and Vibration	Less than Significant	+	Less than Significant (+)
Public Health	Less than Significant	+	Less than Significant (=)
Transportation	Less than Significant	+	Less than Significant (=)
Waste Treatment and Disposal Facilities – Solid Waste Facilities	Less than Significant	+	Less than Significant (=)
Water Resources – Surface Water Quality	Less than Significant	=	Less than Significant (+)
Land Use and Planning	Less than Significant	=	Less than Significant (=)

+ Superior to the proposed project (reduced level of impact)
- Inferior to the proposed project (increased level of impact)
= Similar level of impact to the proposed project

As summarized in the *Executive Summary,* the proposed project would have no impact or a less than significant impact for the majority of environmental issues considered in this EIR. The proposed project would result in a significant and unavoidable impact to agricultural resources, as the development would result in the direct loss of 18.2 acres of Prime Farmland and Farmland of Statewide Importance to nonagricultural use.

The No Project Alternative would be the overall environmentally superior alternative because it would result in no impact or less than significant impacts to all environmental issues and would avoid all project impacts. However, the No Project Alternative would not achieve the project objectives as stated in Section 2, *Project Description,* of this EIR. Additionally, pursuant to the CEQA Guidelines, if the No Project Alternative is the environmentally superior alternative, the EIR shall

also identify an environmentally superior alternative among the other alternatives (Section 15126.6(e)(2) of the CEQA Guidelines).

Alternative 2 (Reduced Footprint) would generate impacts similar to or reduced in comparison to the proposed project. Nevertheless, this alternative would not avoid the project's significant and unavoidable impacts to agricultural resources, as development of a housing complex would still require the conversion of Prime Farmland and Farmland of Statewide Importance to nonagricultural use. In addition, Mitigation Measure AQ-1 and Mitigation Measure BIO-3 would still be required. After the No Project Alternative, Alternative 2 would be considered the environmentally superior alternative because it would result in lesser environmental impacts related to agricultural resources, air quality, and surface water quality. However, only one of the two community centers included in the proposed project would be constructed under Alternative 2. Furthermore, Alternative 2 would not include the basketball court, multiple play fields, or community garden included in the proposed project.

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7 References

7.1 Bibliography

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7.2 List of Preparers

This EIR was prepared by the County of Ventura, with the assistance of Rincon Consultants, Inc. Staff involved in the preparation of the EIR are listed below.

VENTURA COUNTY RESOURCES MANAGEMENT AGENCY

Mindy Fogg, Planning Manager
Justin Bertoline, Senior Planner

RINCON CONSULTANTS, INC.

Joseph Power, Principal in Charge
Melissa Whittemore, Project Manager/Supervising Planner
Amanda Antonelli, Assistant Project Manager/Environmental Planner
Bill Vosti, Senior Environmental Planner/Air Quality, Greenhouse Gas, and Noise Specialist
Chris Bersbach, Senior Environmental Planner
Steven Treffers, Senior Architectural Historian
Mattie Magers, Associate Environmental Planner
Annaliese Miller, Associate Environmental Planner
Ryan Russell, Associate Environmental Planner
Jenna Shaw, Associate Environmental Planner
Nathan Marcy, Associate Biologist
Virginia Dussell, Planning Associate
Audrey Brown, GIS Analyst
Erik Holtz, GIS Analyst
Annette Tran, GIS Analyst
Debra Jane Seltzer, Lead Production Specialist
Dario Campos, Production Specialist

SOMIS RANCH FARMWORKER HOUSING
PRELIMINARY SEEPAGE PIT SIZING CALCULATIONS

Performance testing data per Earth Systems Report (9/24/19):

Min absorption rate = 3.4 G/FT^2/Day

Use FS = 1.5

R = 3.4 g/ FT^2 ÷ 1.5 = 2.26 gal/ FT^2

Use 50' deep x 5' diameter seepage pits

99,000 gal/Day (approximate total wastewater generation)

Determine quantity of vertical feet required:

99,000 Gal/1 Day x 1 SF/2.26 Gal x 1 VF/(5) π SF = 2,789 VF required

2,789 VF/50 FT = 55.8 seepage pits required (all phases)

USE 60 SEEPAGE PITS

WREA
Water Resource Engineering Associates
2300 Alessandro Dr. Ste 215, Ventura, CA 93001
805.653.7900 800.25.WATER 805.653.0610(fax)
www.wreassoc.net

Appendix C

Air Quality and Greenhouse Gas Modeling Results

Somis

Ventura County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.15	6,530.00	0
Parking Lot	655.00	Space	6.16	165,735.00	0
Apartments Low Rise	360.00	Dwelling Unit	22.50	229,012.00	1102

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	530.48	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted for SB 100 RPS of 40% renewables by 2024.

Land Use - User-defined industrial for CWWTF; building and parking SF per site plan; parking lot SF/acre includes appx 0.27 acre easement road

Construction Phase - CalEEMod default building const. length for 360 units = 440. Therefore, each building const. phase assumed to be 440/3. Other phases kept at default lengths.

Trips and VMT -

Grading -

Architectural Coating -

Vehicle Trips - Trip rates from ATE Traffic Study (2020)

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Energy Use - All Title 24 electricity for residential use to be provided by solar per 2019 Building Energy Efficiency Standards

Water And Wastewater -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation - 100% affordable housing

Energy Mitigation -

Water Mitigation - Compliance with 2019 CALGreen

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps - 200 kW generator, tested 30 minutes per week per applicant estimates.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	440.00	147.00
tblConstructionPhase	NumDays	440.00	147.00
tblConstructionPhase	NumDays	440.00	147.00

tblEnergyUse	T24E	177.01	0.00
tblGrading	MaterialImported	0.00	11,200.00
tblGrading	MaterialImported	0.00	11,200.00
tblGrading	MaterialImported	0.00	11,200.00
tblLandUse	LandUseSquareFeet	0.00	6,530.00
tblLandUse	LandUseSquareFeet	262,000.00	165,735.00
tblLandUse	LandUseSquareFeet	360,000.00	229,012.00
tblLandUse	LotAcreage	0.00	0.15
tblLandUse	LotAcreage	5.89	6.16
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	702.44	530.48
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblTripsAndVMT	VendorTripNumber	67.00	65.00
tblTripsAndVMT	VendorTripNumber	67.00	65.00
tblTripsAndVMT	VendorTripNumber	67.00	65.00
tblTripsAndVMT	WorkerTripNumber	66.00	65.00
tblTripsAndVMT	WorkerTripNumber	332.00	327.00
tblTripsAndVMT	WorkerTripNumber	66.00	65.00
tblTripsAndVMT	WorkerTripNumber	332.00	327.00
tblTripsAndVMT	WorkerTripNumber	66.00	65.00
tblTripsAndVMT	WorkerTripNumber	332.00	327.00
tblVehicleTrips	CC_TTP	0.00	32.90
tblVehicleTrips	CNW_TTP	0.00	49.10
tblVehicleTrips	CW_TTP	0.00	18.00
tblVehicleTrips	DV_TP	0.00	11.00
tblVehicleTrips	PB_TP	0.00	3.00
tblVehicleTrips	PR_TP	0.00	86.00

tblVehicleTrips	ST_TR	7.16	7.32
tblVehicleTrips	ST_TR	0.00	2.00
tblVehicleTrips	SU_TR	6.07	7.32
tblVehicleTrips	SU_TR	0.00	2.00
tblVehicleTrips	WD_TR	6.59	7.32
tblVehicleTrips	WD_TR	0.00	2.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.4869	54.1998	33.2988	0.0863	18.2141	2.0455	20.2596	9.9699	1.8819	11.8517	0.0000	8,657.3429	8,657.3429	2.1918	0.0000	8,712.1376
2022	74.5899	45.9180	31.4186	0.0860	18.2141	1.6628	19.8277	9.9699	1.5308	11.4544	0.0000	8,623.0452	8,623.0452	2.1886	0.0000	8,677.7593
2023	74.5635	39.1481	30.2437	0.0851	18.2141	1.4353	19.4811	9.9699	1.3209	11.1355	0.0000	8,539.4855	8,539.4855	2.1734	0.0000	8,593.8206
2024	74.5409	18.4343	24.1038	0.0640	3.1258	0.6367	3.7625	0.8390	0.5987	1.4377	0.0000	6,381.2823	6,381.2823	0.7718	0.0000	6,400.5773
Maximum	**74.5899**	**54.1998**	**33.2988**	**0.0863**	**18.2141**	**2.0455**	**20.2596**	**9.9699**	**1.8819**	**11.8517**	**0.0000**	**8,657.3429**	**8,657.3429**	**2.1918**	**0.0000**	**8,712.1376**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.4869	54.1998	33.2988	0.0863	8.2777	2.0455	10.3232	4.5080	1.8819	6.3899	0.0000	8,657.3429	8,657.3429	2.1918	0.0000	8,712.1376
2022	74.5899	45.9180	31.4186	0.0860	8.2777	1.6628	9.8913	4.5080	1.5308	5.9925	0.0000	8,623.0452	8,623.0452	2.1886	0.0000	8,677.7593
2023	74.5635	39.1481	30.2437	0.0851	8.2777	1.4353	9.5447	4.5080	1.3209	5.6737	0.0000	8,539.4855	8,539.4855	2.1734	0.0000	8,593.8205
2024	74.5409	18.4343	24.1038	0.0640	3.1258	0.6367	3.7625	0.8390	0.5987	1.4377	0.0000	6,381.2823	6,381.2823	0.7718	0.0000	6,400.5773
Maximum	**74.5899**	**54.1998**	**33.2988**	**0.0863**	**8.2777**	**2.0455**	**10.3232**	**4.5080**	**1.8819**	**6.3899**	**0.0000**	**8,657.3429**	**8,657.3429**	**2.1918**	**0.0000**	**8,712.1376**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**51.60**	**0.00**	**47.07**	**53.29**	**0.00**	**45.67**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7091	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648	0.0000	53.6224	53.6224	0.0517	0.0000	54.9146
Energy	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631
Mobile	3.0780	11.8136	39.8474	0.1487	15.4211	0.1147	15.5358	4.1180	0.1065	4.2245		15,091.4727	15,091.4727	0.5799		15,105.9692
Stationary	0.1641	0.4587	0.4184	7.9000e-004		0.0241	0.0241		0.0241	0.0241		83.9514	83.9514	0.0118		84.2457
Total	**10.0870**	**13.7748**	**70.5142**	**0.1585**	**15.4211**	**0.3974**	**15.8185**	**4.1180**	**0.3892**	**4.5072**	**0.0000**	**16,709.6113**	**16,709.6113**	**0.6717**	**0.0271**	**16,734.4925**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7091	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648	0.0000	53.6224	53.6224	0.0517	0.0000	54.9146
Energy	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631
Mobile	3.0362	11.5672	38.6470	0.1431	14.8043	0.1107	14.9150	3.9533	0.1028	4.0561		14,518.5538	14,518.5538	0.5615		14,532.5915
Stationary	0.1641	0.4587	0.4184	7.9000e-004		0.0241	0.0241		0.0241	0.0241		83.9514	83.9514	0.0118		84.2457
Total	**10.0452**	**13.5283**	**69.3138**	**0.1528**	**14.8043**	**0.3934**	**15.1977**	**3.9533**	**0.3855**	**4.3387**	**0.0000**	**16,136.6924**	**16,136.6924**	**0.6534**	**0.0271**	**16,161.1149**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.41**	**1.79**	**1.70**	**3.56**	**4.00**	**1.00**	**3.92**	**4.00**	**0.96**	**3.74**	**0.00**	**3.43**	**3.43**	**2.73**	**0.00**	**3.43**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation - Phase I	Site Preparation	7/1/2021	7/28/2021	5	20	
2	Grading - Phase I	Grading	7/29/2021	9/29/2021	5	45	
3	Building Construction - Phase I	Building Construction	9/30/2021	4/22/2022	5	147	
4	Paving - Phase I	Paving	4/23/2022	6/10/2022	5	35	
5	Architectural Coating - Phase I	Architectural Coating	6/11/2022	7/29/2022	5	35	
6	Site Preparation - Phase II	Site Preparation	7/30/2022	8/26/2022	5	20	
7	Grading - Phase II	Grading	8/27/2022	10/28/2022	5	45	
8	Building Construction - Phase II	Building Construction	10/29/2022	5/23/2023	5	147	
9	Paving - Phase II	Paving	5/24/2023	7/11/2023	5	35	
10	Architectural Coating - Phase II	Architectural Coating	7/12/2023	8/29/2023	5	35	
11	Site Preparation - Phase III	Site Preparation	8/30/2023	9/26/2023	5	20	
12	Grading - Phase III	Grading	9/27/2023	11/28/2023	5	45	
13	Building Construction - Phase III	Building Construction	11/29/2023	6/20/2024	5	147	
14	Paving - Phase III	Paving	6/21/2024	8/8/2024	5	35	
15	Architectural Coating - Phase III	Architectural Coating	8/9/2024	9/26/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 6.16

Residential Indoor: 463,749; Residential Outdoor: 154,583; Non-Residential Indoor: 9,795; Non-Residential Outdoor: 3,265; Striped Parking Area: 9,944 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation - Phase I	Rubber Tired Dozers	3	8.00	247	0.40

Site Preparation - Phase I	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase I	Excavators	2	8.00	158	0.38
Grading - Phase I	Graders	1	8.00	187	0.41
Grading - Phase I	Rubber Tired Dozers	1	8.00	247	0.40
Grading - Phase I	Scrapers	2	8.00	367	0.48
Grading - Phase I	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Phase I	Cranes	1	7.00	231	0.29
Building Construction - Phase I	Forklifts	3	8.00	89	0.20
Building Construction - Phase I	Generator Sets	1	8.00	84	0.74
Building Construction - Phase I	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Phase I	Welders	1	8.00	46	0.45
Paving - Phase I	Pavers	2	8.00	130	0.42
Paving - Phase I	Paving Equipment	2	8.00	132	0.36
Paving - Phase I	Rollers	2	8.00	80	0.38
Architectural Coating - Phase I	Air Compressors	1	6.00	78	0.48
Site Preparation - Phase II	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation - Phase II	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase II	Excavators	2	8.00	158	0.38
Grading - Phase II	Graders	1	8.00	187	0.41
Grading - Phase II	Rubber Tired Dozers	1	8.00	247	0.40
Grading - Phase II	Scrapers	2	8.00	367	0.48
Grading - Phase II	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Phase II	Cranes	1	7.00	231	0.29
Building Construction - Phase II	Forklifts	3	8.00	89	0.20
Building Construction - Phase II	Generator Sets	1	8.00	84	0.74
Building Construction - Phase II	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Phase II	Welders	1	8.00	46	0.45

Paving - Phase II	Pavers	2	8.00	130	0.42
Paving - Phase II	Paving Equipment	2	8.00	132	0.36
Paving - Phase II	Rollers	2	8.00	80	0.38
Architectural Coating - Phase II	Air Compressors	1	6.00	78	0.48
Site Preparation - Phase III	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation - Phase III	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase III	Excavators	2	8.00	158	0.38
Grading - Phase III	Graders	1	8.00	187	0.41
Grading - Phase III	Rubber Tired Dozers	1	8.00	247	0.40
Grading - Phase III	Scrapers	2	8.00	367	0.48
Grading - Phase III	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Phase III	Cranes	1	7.00	231	0.29
Building Construction - Phase III	Forklifts	3	8.00	89	0.20
Building Construction - Phase III	Generator Sets	1	8.00	84	0.74
Building Construction - Phase III	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Phase III	Welders	1	8.00	46	0.45
Paving - Phase III	Pavers	2	8.00	130	0.42
Paving - Phase III	Paving Equipment	2	8.00	132	0.36
Paving - Phase III	Rollers	2	8.00	80	0.38
Architectural Coating - Phase III	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation - Phase I	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase I	8	20.00	0.00	1,400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase I	9	327.00	65.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase I	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Phase I	1	65.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation - Phase II	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase II	8	20.00	0.00	1,400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase II	9	327.00	65.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase II	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Phase II	1	65.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation - Phase III	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase III	8	20.00	0.00	1,400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase III	9	327.00	65.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase III	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Phase III	1	65.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - Phase I - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0699	0.0417	0.4478	1.3200e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		131.8827	131.8827	3.3500e-003		131.9665
Total	**0.0699**	**0.0417**	**0.4478**	**1.3200e-003**	**0.1479**	**1.0200e-003**	**0.1489**	**0.0392**	**9.4000e-004**	**0.0402**		**131.8827**	**131.8827**	**3.3500e-003**		**131.9665**

3.2 Site Preparation - Phase I - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**8.1298**	**2.0445**	**10.1743**	**4.4688**	**1.8809**	**6.3497**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0699	0.0417	0.4478	1.3200e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		131.8827	131.8827	3.3500e-003		131.9665
Total	**0.0699**	**0.0417**	**0.4478**	**1.3200e-003**	**0.1479**	**1.0200e-003**	**0.1489**	**0.0392**	**9.4000e-004**	**0.0402**		**131.8827**	**131.8827**	**3.3500e-003**		**131.9665**

3.3 Grading - Phase I - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7083	0.0000	8.7083	3.6018	0.0000	3.6018			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.7083**	**1.9853**	**10.6937**	**3.6018**	**1.8265**	**5.4283**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2181	7.7537	1.9228	0.0228	0.5420	0.0315	0.5736	0.1484	0.0302	0.1786		2,503.7631	2,503.7631	0.2453		2,509.8947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.2958**	**7.8000**	**2.4203**	**0.0243**	**0.7063**	**0.0327**	**0.7390**	**0.1920**	**0.0312**	**0.2232**		**2,650.2994**	**2,650.2994**	**0.2490**		**2,656.5241**

3.3 Grading - Phase I - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9187	0.0000	3.9187	1.6208	0.0000	1.6208			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**3.9187**	**1.9853**	**5.9041**	**1.6208**	**1.8265**	**3.4473**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2181	7.7537	1.9228	0.0228	0.5420	0.0315	0.5736	0.1484	0.0302	0.1786		2,503.7631	2,503.7631	0.2453		2,509.8947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.2958**	**7.8000**	**2.4203**	**0.0243**	**0.7063**	**0.0327**	**0.7390**	**0.1920**	**0.0312**	**0.2232**		**2,650.2994**	**2,650.2994**	**0.2490**		**2,656.5241**

3.4 Building Construction - Phase I - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1941	6.2603	1.8173	0.0162	0.4394	0.0184	0.4578	0.1265	0.0176	0.1441		1,747.3527	1,747.3527	0.1459		1,750.9996
Worker	1.2706	0.7578	8.1342	0.0241	2.6862	0.0186	2.7049	0.7125	0.0172	0.7297		2,395.8684	2,395.8684	0.0609		2,397.3912
Total	**1.4647**	**7.0181**	**9.9515**	**0.0403**	**3.1256**	**0.0371**	**3.1627**	**0.8390**	**0.0348**	**0.8737**		**4,143.2211**	**4,143.2211**	**0.2068**		**4,148.3908**

3.4 Building Construction - Phase I - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1941	6.2603	1.8173	0.0162	0.4394	0.0184	0.4578	0.1265	0.0176	0.1441		1,747.3527	1,747.3527	0.1459		1,750.9996
Worker	1.2706	0.7578	8.1342	0.0241	2.6862	0.0186	2.7049	0.7125	0.0172	0.7297		2,395.8684	2,395.8684	0.0609		2,397.3912
Total	**1.4647**	**7.0181**	**9.9515**	**0.0403**	**3.1256**	**0.0371**	**3.1627**	**0.8390**	**0.0348**	**0.8737**		**4,143.2211**	**4,143.2211**	**0.2068**		**4,148.3908**

3.4 Building Construction - Phase I - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1806	5.8843	1.7232	0.0161	0.4394	0.0160	0.4554	0.1265	0.0153	0.1418		1,730.9506	1,730.9506	0.1403		1,734.4588
Worker	1.1970	0.6839	7.5114	0.0232	2.6862	0.0182	2.7044	0.7125	0.0167	0.7292		2,307.8494	2,307.8494	0.0550		2,309.2240
Total	**1.3776**	**6.5681**	**9.2346**	**0.0392**	**3.1257**	**0.0342**	**3.1598**	**0.8390**	**0.0320**	**0.8710**		**4,038.8000**	**4,038.8000**	**0.1953**		**4,043.6828**

3.4 Building Construction - Phase I - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1806	5.8843	1.7232	0.0161	0.4394	0.0160	0.4554	0.1265	0.0153	0.1418		1,730.9506	1,730.9506	0.1403		1,734.4588
Worker	1.1970	0.6839	7.5114	0.0232	2.6862	0.0182	2.7044	0.7125	0.0167	0.7292		2,307.8494	2,307.8494	0.0550		2,309.2240
Total	**1.3776**	**6.5681**	**9.2346**	**0.0392**	**3.1257**	**0.0342**	**3.1598**	**0.8390**	**0.0320**	**0.8710**		**4,038.8000**	**4,038.8000**	**0.1953**		**4,043.6828**

3.5 Paving - Phase I - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4611					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5639**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0549**	**0.0314**	**0.3446**	**1.0600e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**105.8647**	**105.8647**	**2.5200e-003**		**105.9277**

3.5 Paving - Phase I - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4611					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5639**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0549**	**0.0314**	**0.3446**	**1.0600e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**105.8647**	**105.8647**	**2.5200e-003**		**105.9277**

3.6 Architectural Coating - Phase I - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**74.3519**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2379	0.1359	1.4931	4.6000e-003	0.5340	3.6100e-003	0.5376	0.1416	3.3200e-003	0.1450		458.7468	458.7468	0.0109		459.0201
Total	**0.2379**	**0.1359**	**1.4931**	**4.6000e-003**	**0.5340**	**3.6100e-003**	**0.5376**	**0.1416**	**3.3200e-003**	**0.1450**		**458.7468**	**458.7468**	**0.0109**		**459.0201**

3.6 Architectural Coating - Phase I - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**74.3519**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2379	0.1359	1.4931	4.6000e-003	0.5340	3.6100e-003	0.5376	0.1416	3.3200e-003	0.1450		458.7468	458.7468	0.0109		459.0201
Total	**0.2379**	**0.1359**	**1.4931**	**4.6000e-003**	**0.5340**	**3.6100e-003**	**0.5376**	**0.1416**	**3.3200e-003**	**0.1450**		**458.7468**	**458.7468**	**0.0109**		**459.0201**

3.7 Site Preparation - Phase II - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0659	0.0376	0.4135	1.2700e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		127.0376	127.0376	3.0300e-003		127.1133
Total	**0.0659**	**0.0376**	**0.4135**	**1.2700e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**127.0376**	**127.0376**	**3.0300e-003**		**127.1133**

3.7 Site Preparation - Phase II - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.1298**	**1.6126**	**9.7424**	**4.4688**	**1.4836**	**5.9524**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0659	0.0376	0.4135	1.2700e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		127.0376	127.0376	3.0300e-003		127.1133
Total	**0.0659**	**0.0376**	**0.4135**	**1.2700e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**127.0376**	**127.0376**	**3.0300e-003**		**127.1133**

3.8 Grading - Phase II - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7083	0.0000	8.7083	3.6018	0.0000	3.6018			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.7083**	**1.6349**	**10.3432**	**3.6018**	**1.5041**	**5.1059**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2050	7.0327	1.9177	0.0225	0.5421	0.0268	0.5690	0.1484	0.0257	0.1741		2,470.4818	2,470.4818	0.2410		2,476.5065
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0732	0.0418	0.4594	1.4200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		141.1529	141.1529	3.3600e-003		141.2369
Total	**0.2782**	**7.0745**	**2.3771**	**0.0239**	**0.7064**	**0.0280**	**0.7344**	**0.1920**	**0.0267**	**0.2187**		**2,611.6347**	**2,611.6347**	**0.2444**		**2,617.7435**

3.8 Grading - Phase II - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9187	0.0000	3.9187	1.6208	0.0000	1.6208			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**3.9187**	**1.6349**	**5.5536**	**1.6208**	**1.5041**	**3.1249**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2050	7.0327	1.9177	0.0225	0.5421	0.0268	0.5690	0.1484	0.0257	0.1741		2,470.4818	2,470.4818	0.2410		2,476.5065
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0732	0.0418	0.4594	1.4200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		141.1529	141.1529	3.3600e-003		141.2369
Total	**0.2782**	**7.0745**	**2.3771**	**0.0239**	**0.7064**	**0.0280**	**0.7344**	**0.1920**	**0.0267**	**0.2187**		**2,611.6347**	**2,611.6347**	**0.2444**		**2,617.7435**

3.9 Building Construction - Phase II - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1806	5.8843	1.7232	0.0161	0.4394	0.0160	0.4554	0.1265	0.0153	0.1418		1,730.9506	1,730.9506	0.1403		1,734.4588
Worker	1.1970	0.6839	7.5114	0.0232	2.6862	0.0182	2.7044	0.7125	0.0167	0.7292		2,307.8494	2,307.8494	0.0550		2,309.2240
Total	**1.3776**	**6.5681**	**9.2346**	**0.0392**	**3.1257**	**0.0342**	**3.1598**	**0.8390**	**0.0320**	**0.8710**		**4,038.8000**	**4,038.8000**	**0.1953**		**4,043.6828**

3.9 Building Construction - Phase II - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1806	5.8843	1.7232	0.0161	0.4394	0.0160	0.4554	0.1265	0.0153	0.1418		1,730.9506	1,730.9506	0.1403		1,734.4588
Worker	1.1970	0.6839	7.5114	0.0232	2.6862	0.0182	2.7044	0.7125	0.0167	0.7292		2,307.8494	2,307.8494	0.0550		2,309.2240
Total	**1.3776**	**6.5681**	**9.2346**	**0.0392**	**3.1257**	**0.0342**	**3.1598**	**0.8390**	**0.0320**	**0.8710**		**4,038.8000**	**4,038.8000**	**0.1953**		**4,043.6828**

3.9 Building Construction - Phase II - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1341	4.4801	1.5454	0.0157	0.4395	6.0700e-003	0.4456	0.1265	5.8000e-003	0.1323		1,692.7390	1,692.7390	0.1247		1,695.8573
Worker	1.1292	0.6176	6.9228	0.0223	2.6862	0.0177	2.7040	0.7125	0.0163	0.7288		2,219.4822	2,219.4822	0.0495		2,220.7188
Total	**1.2634**	**5.0977**	**8.4682**	**0.0379**	**3.1257**	**0.0238**	**3.1495**	**0.8390**	**0.0221**	**0.8611**		**3,912.2211**	**3,912.2211**	**0.1742**		**3,916.5761**

3.9 Building Construction - Phase II - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1341	4.4801	1.5454	0.0157	0.4395	6.0700e-003	0.4456	0.1265	5.8000e-003	0.1323		1,692.7390	1,692.7390	0.1247		1,695.8573
Worker	1.1292	0.6176	6.9228	0.0223	2.6862	0.0177	2.7040	0.7125	0.0163	0.7288		2,219.4822	2,219.4822	0.0495		2,220.7188
Total	**1.2634**	**5.0977**	**8.4682**	**0.0379**	**3.1257**	**0.0238**	**3.1495**	**0.8390**	**0.0221**	**0.8611**		**3,912.2211**	**3,912.2211**	**0.1742**		**3,916.5761**

3.10 Paving - Phase II - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.4611					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4939**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

3.10 Paving - Phase II - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.4611					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4939**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

3.11 Architectural Coating - Phase II - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**74.3391**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2245	0.1228	1.3761	4.4300e-003	0.5340	3.5200e-003	0.5375	0.1416	3.2500e-003	0.1449		441.1815	441.1815	9.8300e-003		441.4273
Total	**0.2245**	**0.1228**	**1.3761**	**4.4300e-003**	**0.5340**	**3.5200e-003**	**0.5375**	**0.1416**	**3.2500e-003**	**0.1449**		**441.1815**	**441.1815**	**9.8300e-003**		**441.4273**

3.11 Architectural Coating - Phase II - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**74.3391**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2245	0.1228	1.3761	4.4300e-003	0.5340	3.5200e-003	0.5375	0.1416	3.2500e-003	0.1449		441.1815	441.1815	9.8300e-003		441.4273
Total	**0.2245**	**0.1228**	**1.3761**	**4.4300e-003**	**0.5340**	**3.5200e-003**	**0.5375**	**0.1416**	**3.2500e-003**	**0.1449**		**441.1815**	**441.1815**	**9.8300e-003**		**441.4273**

3.12 Site Preparation - Phase III - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**18.0663**	**1.2660**	**19.3323**	**9.9307**	**1.1647**	**11.0954**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0340	0.3811	1.2300e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		122.1733	122.1733	2.7200e-003		122.2414
Total	**0.0622**	**0.0340**	**0.3811**	**1.2300e-003**	**0.1479**	**9.8000e-004**	**0.1488**	**0.0392**	**9.0000e-004**	**0.0401**		**122.1733**	**122.1733**	**2.7200e-003**		**122.2414**

3.12 Site Preparation - Phase III - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**8.1298**	**1.2660**	**9.3958**	**4.4688**	**1.1647**	**5.6336**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0340	0.3811	1.2300e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		122.1733	122.1733	2.7200e-003		122.2414
Total	**0.0622**	**0.0340**	**0.3811**	**1.2300e-003**	**0.1479**	**9.8000e-004**	**0.1488**	**0.0392**	**9.0000e-004**	**0.0401**		**122.1733**	**122.1733**	**2.7200e-003**		**122.2414**

3.13 Grading - Phase III - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7083	0.0000	8.7083	3.6018	0.0000	3.6018			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**8.7083**	**1.4245**	**10.1328**	**3.6018**	**1.3105**	**4.9123**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1390	4.5948	1.7691	0.0217	0.5422	9.7400e-003	0.5520	0.1485	9.3200e-003	0.1578		2,392.2596	2,392.2596	0.2261		2,397.9132
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0691	0.0378	0.4234	1.3600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		135.7481	135.7481	3.0300e-003		135.8238
Total	**0.2080**	**4.6325**	**2.1925**	**0.0231**	**0.7065**	**0.0108**	**0.7173**	**0.1921**	**0.0103**	**0.2024**		**2,528.0077**	**2,528.0077**	**0.2292**		**2,533.7370**

3.13 Grading - Phase III - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9187	0.0000	3.9187	1.6208	0.0000	1.6208			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.9187**	**1.4245**	**5.3432**	**1.6208**	**1.3105**	**2.9313**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1390	4.5948	1.7691	0.0217	0.5422	9.7400e-003	0.5520	0.1485	9.3200e-003	0.1578		2,392.2596	2,392.2596	0.2261		2,397.9132
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0691	0.0378	0.4234	1.3600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		135.7481	135.7481	3.0300e-003		135.8238
Total	**0.2080**	**4.6325**	**2.1925**	**0.0231**	**0.7065**	**0.0108**	**0.7173**	**0.1921**	**0.0103**	**0.2024**		**2,528.0077**	**2,528.0077**	**0.2292**		**2,533.7370**

3.14 Building Construction - Phase III - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1341	4.4801	1.5454	0.0157	0.4395	6.0700e-003	0.4456	0.1265	5.8000e-003	0.1323		1,692.7390	1,692.7390	0.1247		1,695.8573
Worker	1.1292	0.6176	6.9228	0.0223	2.6862	0.0177	2.7040	0.7125	0.0163	0.7288		2,219.4822	2,219.4822	0.0495		2,220.7188
Total	**1.2634**	**5.0977**	**8.4682**	**0.0379**	**3.1257**	**0.0238**	**3.1495**	**0.8390**	**0.0221**	**0.8611**		**3,912.2211**	**3,912.2211**	**0.1742**		**3,916.5761**

3.14 Building Construction - Phase III - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1341	4.4801	1.5454	0.0157	0.4395	6.0700e-003	0.4456	0.1265	5.8000e-003	0.1323		1,692.7390	1,692.7390	0.1247		1,695.8573
Worker	1.1292	0.6176	6.9228	0.0223	2.6862	0.0177	2.7040	0.7125	0.0163	0.7288		2,219.4822	2,219.4822	0.0495		2,220.7188
Total	**1.2634**	**5.0977**	**8.4682**	**0.0379**	**3.1257**	**0.0238**	**3.1495**	**0.8390**	**0.0221**	**0.8611**		**3,912.2211**	**3,912.2211**	**0.1742**		**3,916.5761**

3.14 Building Construction - Phase III - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1297	4.4295	1.5041	0.0156	0.4395	5.9200e-003	0.4454	0.1265	5.6600e-003	0.1322		1,684.6523	1,684.6523	0.1224		1,687.7123
Worker	1.0705	0.5610	6.4329	0.0215	2.6862	0.0175	2.7037	0.7125	0.0161	0.7286		2,140.9311	2,140.9311	0.0451		2,142.0573
Total	**1.2002**	**4.9906**	**7.9370**	**0.0371**	**3.1258**	**0.0234**	**3.1491**	**0.8390**	**0.0218**	**0.8608**		**3,825.5834**	**3,825.5834**	**0.1675**		**3,829.7696**

3.14 Building Construction - Phase III - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1297	4.4295	1.5041	0.0156	0.4395	5.9200e-003	0.4454	0.1265	5.6600e-003	0.1322		1,684.6523	1,684.6523	0.1224		1,687.7123
Worker	1.0705	0.5610	6.4329	0.0215	2.6862	0.0175	2.7037	0.7125	0.0161	0.7286		2,140.9311	2,140.9311	0.0451		2,142.0573
Total	**1.2002**	**4.9906**	**7.9370**	**0.0371**	**3.1258**	**0.0234**	**3.1491**	**0.8390**	**0.0218**	**0.8608**		**3,825.5834**	**3,825.5834**	**0.1675**		**3,829.7696**

3.15 Paving - Phase III - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.4611					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4493**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0491	0.0257	0.2951	9.8000e-004	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		98.2079	98.2079	2.0700e-003		98.2595
Total	**0.0491**	**0.0257**	**0.2951**	**9.8000e-004**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**98.2079**	**98.2079**	**2.0700e-003**		**98.2595**

3.15 Paving - Phase III - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.4611					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4493**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0491	0.0257	0.2951	9.8000e-004	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		98.2079	98.2079	2.0700e-003		98.2595
Total	**0.0491**	**0.0257**	**0.2951**	**9.8000e-004**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**98.2079**	**98.2079**	**2.0700e-003**		**98.2595**

3.16 Architectural Coating - Phase III - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**74.3282**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2128	0.1115	1.2787	4.2700e-003	0.5340	3.4700e-003	0.5374	0.1416	3.2000e-003	0.1448		425.5673	425.5673	8.9500e-003		425.7912
Total	**0.2128**	**0.1115**	**1.2787**	**4.2700e-003**	**0.5340**	**3.4700e-003**	**0.5374**	**0.1416**	**3.2000e-003**	**0.1448**		**425.5673**	**425.5673**	**8.9500e-003**		**425.7912**

3.16 Architectural Coating - Phase III - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**74.3282**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2128	0.1115	1.2787	4.2700e-003	0.5340	3.4700e-003	0.5374	0.1416	3.2000e-003	0.1448		425.5673	425.5673	8.9500e-003		425.7912
Total	**0.2128**	**0.1115**	**1.2787**	**4.2700e-003**	**0.5340**	**3.4700e-003**	**0.5374**	**0.1416**	**3.2000e-003**	**0.1448**		**425.5673**	**425.5673**	**8.9500e-003**		**425.7912**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Integrate Below Market Rate Housing

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.0362	11.5672	38.6470	0.1431	14.8043	0.1107	14.9150	3.9533	0.1028	4.0561		14,518.5538	14,518.5538	0.5615		14,532.5915
Unmitigated	3.0780	11.8136	39.8474	0.1487	15.4211	0.1147	15.5358	4.1180	0.1065	4.2245		15,091.4727	15,091.4727	0.5799		15,105.9692

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	2,635.20	2,635.20	2635.20	7,281,249	6,989,999
Parking Lot	0.00	0.00	0.00		
User Defined Industrial	2.00	2.00	2.00	4,975	4,776
Total	2,637.20	2,637.20	2,637.20	7,286,223	6,994,775

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	32.90	18.00	49.10	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
User Defined Industrial	9.50	7.30	7.30	18.00	32.90	49.10	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.597457	0.040465	0.187858	0.105115	0.017041	0.006067	0.020072	0.018206	0.001182	0.001040	0.003816	0.000389	0.001293
Parking Lot	0.597457	0.040465	0.187858	0.105115	0.017041	0.006067	0.020072	0.018206	0.001182	0.001040	0.003816	0.000389	0.001293
User Defined Industrial	0.597457	0.040465	0.187858	0.105115	0.017041	0.006067	0.020072	0.018206	0.001182	0.001040	0.003816	0.000389	0.001293

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631
NaturalGas Unmitigated	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	12584.8	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1357**	**1.1598**	**0.4935**	**7.4000e-003**		**0.0938**	**0.0938**		**0.0938**	**0.0938**		**1,480.5648**	**1,480.5648**	**0.0284**	**0.0271**	**1,489.3631**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	12.5848	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1357**	**1.1598**	**0.4935**	**7.4000e-003**		**0.0938**	**0.0938**		**0.0938**	**0.0938**		**1,480.5648**	**1,480.5648**	**0.0284**	**0.0271**	**1,489.3631**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.7091	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648	0.0000	53.6224	53.6224	0.0517	0.0000	54.9146
Unmitigated	6.7091	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648	0.0000	53.6224	53.6224	0.0517	0.0000	54.9146

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7110					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0993					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8988	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648		53.6224	53.6224	0.0517		54.9146
Total	**6.7091**	**0.3427**	**29.7548**	**1.5700e-003**		**0.1648**	**0.1648**		**0.1648**	**0.1648**	**0.0000**	**53.6224**	**53.6224**	**0.0517**	**0.0000**	**54.9146**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7110					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0993					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8988	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648		53.6224	53.6224	0.0517		54.9146
Total	**6.7091**	**0.3427**	**29.7548**	**1.5700e-003**		**0.1648**	**0.1648**		**0.1648**	**0.1648**	**0.0000**	**53.6224**	**53.6224**	**0.0517**	**0.0000**	**54.9146**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	26	200	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	0.1641	0.4587	0.4184	7.9000e-004		0.0241	0.0241		0.0241	0.0241		83.9514	83.9514	0.0118		84.2457
Total	**0.1641**	**0.4587**	**0.4184**	**7.9000e-004**		**0.0241**	**0.0241**		**0.0241**	**0.0241**		**83.9514**	**83.9514**	**0.0118**		**84.2457**

11.0 Vegetation

Somis - Mitigated

Ventura County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.15	6,530.00	0
Parking Lot	655.00	Space	6.17	165,735.00	0
Apartments Low Rise	360.00	Dwelling Unit	22.50	229,012.00	1102

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	530.48	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted for SB 100 RPS of 40% renewables by 2024.

Land Use - User-defined industrial for CWWTF; building and parking SF per site plan; parking lot SF includes appx 0.27 easement road

Construction Phase - CalEEMod default building const. length for 360 units = 440. Therefore, each building const. phase assumed to be 440/3. Other phases kept at default lengths.

Trips and VMT -

Grading -

Architectural Coating -

Vehicle Trips - Trip rates from ATE Traffic Study (2020)

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Energy Use - All Title 24 electricity for residential use to be provided by solar per 2019 Building Energy Efficiency Standards

Water And Wastewater -

Construction Off-road Equipment Mitigation - Mitigation Measure AQ-1

Mobile Land Use Mitigation - 100% affordable housing

Energy Mitigation -

Water Mitigation - Compliance with 2019 CALGreen

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps - 200 kW generator, tested 30 minutes per week per applicant estimates.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	27.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	440.00	147.00
tblConstructionPhase	NumDays	440.00	147.00
tblConstructionPhase	NumDays	440.00	147.00
tblEnergyUse	T24E	177.01	0.00

tblGrading	MaterialImported	0.00	11,200.00
tblGrading	MaterialImported	0.00	11,200.00
tblGrading	MaterialImported	0.00	11,200.00
tblLandUse	LandUseSquareFeet	0.00	6,530.00
tblLandUse	LandUseSquareFeet	262,000.00	165,735.00
tblLandUse	LandUseSquareFeet	360,000.00	229,012.00
tblLandUse	LotAcreage	0.00	0.15
tblLandUse	LotAcreage	5.89	6.17
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	702.44	530.48
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblTripsAndVMT	VendorTripNumber	67.00	65.00
tblTripsAndVMT	VendorTripNumber	67.00	65.00
tblTripsAndVMT	VendorTripNumber	67.00	65.00
tblTripsAndVMT	WorkerTripNumber	66.00	65.00
tblTripsAndVMT	WorkerTripNumber	332.00	327.00
tblTripsAndVMT	WorkerTripNumber	66.00	65.00
tblTripsAndVMT	WorkerTripNumber	332.00	327.00
tblTripsAndVMT	WorkerTripNumber	66.00	65.00
tblTripsAndVMT	WorkerTripNumber	332.00	327.00
tblVehicleTrips	CC_TTP	0.00	32.90
tblVehicleTrips	CNW_TTP	0.00	49.10
tblVehicleTrips	CW_TTP	0.00	18.00
tblVehicleTrips	DV_TP	0.00	11.00
tblVehicleTrips	PB_TP	0.00	3.00
tblVehicleTrips	PR_TP	0.00	86.00
tblVehicleTrips	ST_TR	7.16	7.32

tblVehicleTrips	ST_TR	0.00	2.00
tblVehicleTrips	SU_TR	6.07	7.32
tblVehicleTrips	SU_TR	0.00	2.00
tblVehicleTrips	WD_TR	6.59	7.32
tblVehicleTrips	WD_TR	0.00	2.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.4869	54.1998	33.2988	0.0863	18.2141	2.0455	20.2596	9.9699	1.8819	11.8517	0.0000	8,657.3429	8,657.3429	2.1918	0.0000	8,712.1376
2022	74.5899	45.9180	31.4186	0.0860	18.2141	1.6628	19.8277	9.9699	1.5308	11.4544	0.0000	8,623.0452	8,623.0452	2.1886	0.0000	8,677.7593
2023	74.5635	39.1481	30.2437	0.0851	18.2141	1.4353	19.4811	9.9699	1.3209	11.1355	0.0000	8,539.4855	8,539.4855	2.1734	0.0000	8,593.8206
2024	74.5409	18.4343	24.1038	0.0640	3.1258	0.6367	3.7625	0.8390	0.5987	1.4377	0.0000	6,381.2823	6,381.2823	0.7718	0.0000	6,400.5773
Maximum	**74.5899**	**54.1998**	**33.2988**	**0.0863**	**18.2141**	**2.0455**	**20.2596**	**9.9699**	**1.8819**	**11.8517**	**0.0000**	**8,657.3429**	**8,657.3429**	**2.1918**	**0.0000**	**8,712.1376**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.1386	37.7782	39.1429	0.0863	8.2777	1.3321	9.2249	4.5080	1.3307	5.4551	0.0000	8,657.3429	8,657.3429	2.1918	0.0000	8,712.1376
2022	74.4448	37.0527	39.0997	0.0860	8.2777	1.3274	9.2249	4.5080	1.3261	5.4551	0.0000	8,623.0452	8,623.0452	2.1886	0.0000	8,677.7593
2023	74.4313	34.6107	38.9151	0.0851	8.2777	1.3103	9.2248	4.5080	1.3098	5.4551	0.0000	8,539.4855	8,539.4855	2.1734	0.0000	8,593.8205
2024	74.4196	19.2166	25.8107	0.0640	3.1258	0.9269	4.0527	0.8390	0.9253	1.7643	0.0000	6,381.2823	6,381.2823	0.7718	0.0000	6,400.5773
Maximum	**74.4448**	**37.7782**	**39.1429**	**0.0863**	**8.2777**	**1.3321**	**9.2249**	**4.5080**	**1.3307**	**5.4551**	**0.0000**	**8,657.3429**	**8,657.3429**	**2.1918**	**0.0000**	**8,712.1376**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.20**	**18.42**	**-20.08**	**0.00**	**51.60**	**15.29**	**49.90**	**53.29**	**8.26**	**49.47**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7091	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648	0.0000	53.6224	53.6224	0.0517	0.0000	54.9146
Energy	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631
Mobile	3.0780	11.8136	39.8474	0.1487	15.4211	0.1147	15.5358	4.1180	0.1065	4.2245		15,091.4727	15,091.4727	0.5799		15,105.9692
Stationary	0.1641	0.4587	0.4184	7.9000e-004		0.0241	0.0241		0.0241	0.0241		83.9514	83.9514	0.0118		84.2457
Total	**10.0870**	**13.7748**	**70.5142**	**0.1585**	**15.4211**	**0.3974**	**15.8185**	**4.1180**	**0.3892**	**4.5072**	**0.0000**	**16,709.6113**	**16,709.6113**	**0.6717**	**0.0271**	**16,734.4925**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7091	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648	0.0000	53.6224	53.6224	0.0517	0.0000	54.9146
Energy	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631
Mobile	3.0362	11.5672	38.6470	0.1431	14.8043	0.1107	14.9150	3.9533	0.1028	4.0561		14,518.5538	14,518.5538	0.5615		14,532.5915
Stationary	0.1641	0.4587	0.4184	7.9000e-004		0.0241	0.0241		0.0241	0.0241		83.9514	83.9514	0.0118		84.2457
Total	**10.0452**	**13.5283**	**69.3138**	**0.1528**	**14.8043**	**0.3934**	**15.1977**	**3.9533**	**0.3855**	**4.3387**	**0.0000**	**16,136.6924**	**16,136.6924**	**0.6534**	**0.0271**	**16,161.1149**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.41**	**1.79**	**1.70**	**3.56**	**4.00**	**1.00**	**3.92**	**4.00**	**0.96**	**3.74**	**0.00**	**3.43**	**3.43**	**2.73**	**0.00**	**3.43**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation - Phase I	Site Preparation	7/1/2021	7/28/2021	5	20	
2	Grading - Phase I	Grading	7/29/2021	9/29/2021	5	45	
3	Building Construction - Phase I	Building Construction	9/30/2021	4/22/2022	5	147	
4	Paving - Phase I	Paving	4/23/2022	6/10/2022	5	35	
5	Architectural Coating - Phase I	Architectural Coating	6/11/2022	7/29/2022	5	35	
6	Site Preparation - Phase II	Site Preparation	7/30/2022	8/26/2022	5	20	
7	Grading - Phase II	Grading	8/27/2022	10/28/2022	5	45	
8	Building Construction - Phase II	Building Construction	10/29/2022	5/23/2023	5	147	
9	Paving - Phase II	Paving	5/24/2023	7/11/2023	5	35	
10	Architectural Coating - Phase II	Architectural Coating	7/12/2023	8/29/2023	5	35	
11	Site Preparation - Phase III	Site Preparation	8/30/2023	9/26/2023	5	20	
12	Grading - Phase III	Grading	9/27/2023	11/28/2023	5	45	
13	Building Construction - Phase III	Building Construction	11/29/2023	6/20/2024	5	147	
14	Paving - Phase III	Paving	6/21/2024	8/8/2024	5	35	
15	Architectural Coating - Phase III	Architectural Coating	8/9/2024	9/26/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 6.17

Residential Indoor: 463,749; Residential Outdoor: 154,583; Non-Residential Indoor: 9,795; Non-Residential Outdoor: 3,265; Striped Parking Area: 9,944 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation - Phase I	Rubber Tired Dozers	3	8.00	247	0.40

Site Preparation - Phase I	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase I	Excavators	2	8.00	158	0.38
Grading - Phase I	Graders	1	8.00	187	0.41
Grading - Phase I	Rubber Tired Dozers	1	8.00	247	0.40
Grading - Phase I	Scrapers	2	8.00	367	0.48
Grading - Phase I	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Phase I	Cranes	1	7.00	231	0.29
Building Construction - Phase I	Forklifts	3	8.00	89	0.20
Building Construction - Phase I	Generator Sets	1	8.00	84	0.74
Building Construction - Phase I	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Phase I	Welders	1	8.00	46	0.45
Paving - Phase I	Pavers	2	8.00	130	0.42
Paving - Phase I	Paving Equipment	2	8.00	132	0.36
Paving - Phase I	Rollers	2	8.00	80	0.38
Architectural Coating - Phase I	Air Compressors	1	6.00	78	0.48
Site Preparation - Phase II	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation - Phase II	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase II	Excavators	2	8.00	158	0.38
Grading - Phase II	Graders	1	8.00	187	0.41
Grading - Phase II	Rubber Tired Dozers	1	8.00	247	0.40
Grading - Phase II	Scrapers	2	8.00	367	0.48
Grading - Phase II	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Phase II	Cranes	1	7.00	231	0.29
Building Construction - Phase II	Forklifts	3	8.00	89	0.20
Building Construction - Phase II	Generator Sets	1	8.00	84	0.74
Building Construction - Phase II	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Phase II	Welders	1	8.00	46	0.45

Paving - Phase II	Pavers	2	8.00	130	0.42
Paving - Phase II	Paving Equipment	2	8.00	132	0.36
Paving - Phase II	Rollers	2	8.00	80	0.38
Architectural Coating - Phase II	Air Compressors	1	6.00	78	0.48
Site Preparation - Phase III	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation - Phase III	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase III	Excavators	2	8.00	158	0.38
Grading - Phase III	Graders	1	8.00	187	0.41
Grading - Phase III	Rubber Tired Dozers	1	8.00	247	0.40
Grading - Phase III	Scrapers	2	8.00	367	0.48
Grading - Phase III	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Phase III	Cranes	1	7.00	231	0.29
Building Construction - Phase III	Forklifts	3	8.00	89	0.20
Building Construction - Phase III	Generator Sets	1	8.00	84	0.74
Building Construction - Phase III	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Phase III	Welders	1	8.00	46	0.45
Paving - Phase III	Pavers	2	8.00	130	0.42
Paving - Phase III	Paving Equipment	2	8.00	132	0.36
Paving - Phase III	Rollers	2	8.00	80	0.38
Architectural Coating - Phase III	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation - Phase I	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase I	8	20.00	0.00	1,400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase I	9	327.00	65.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase I	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Phase I	1	65.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation - Phase II	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase II	8	20.00	0.00	1,400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase II	9	327.00	65.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase II	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Phase II	1	65.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation - Phase III	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase III	8	20.00	0.00	1,400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase III	9	327.00	65.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase III	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Phase III	1	65.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - Phase I - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0699	0.0417	0.4478	1.3200e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		131.8827	131.8827	3.3500e-003		131.9665
Total	**0.0699**	**0.0417**	**0.4478**	**1.3200e-003**	**0.1479**	**1.0200e-003**	**0.1489**	**0.0392**	**9.4000e-004**	**0.0402**		**131.8827**	**131.8827**	**3.3500e-003**		**131.9665**

3.2 Site Preparation - Phase I - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.1298**	**0.9462**	**9.0760**	**4.4688**	**0.9462**	**5.4150**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0699	0.0417	0.4478	1.3200e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		131.8827	131.8827	3.3500e-003		131.9665
Total	**0.0699**	**0.0417**	**0.4478**	**1.3200e-003**	**0.1479**	**1.0200e-003**	**0.1489**	**0.0392**	**9.4000e-004**	**0.0402**		**131.8827**	**131.8827**	**3.3500e-003**		**131.9665**

3.3 Grading - Phase I - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7083	0.0000	8.7083	3.6018	0.0000	3.6018			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.7083**	**1.9853**	**10.6937**	**3.6018**	**1.8265**	**5.4283**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2181	7.7537	1.9228	0.0228	0.5420	0.0315	0.5736	0.1484	0.0302	0.1786		2,503.7631	2,503.7631	0.2453		2,509.8947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.2958**	**7.8000**	**2.4203**	**0.0243**	**0.7063**	**0.0327**	**0.7390**	**0.1920**	**0.0312**	**0.2232**		**2,650.2994**	**2,650.2994**	**0.2490**		**2,656.5241**

3.3 Grading - Phase I - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9187	0.0000	3.9187	1.6208	0.0000	1.6208			0.0000			0.0000
Off-Road	1.5231	29.9782	36.7226	0.0620		1.2994	1.2994		1.2994	1.2994	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**1.5231**	**29.9782**	**36.7226**	**0.0620**	**3.9187**	**1.2994**	**5.2182**	**1.6208**	**1.2994**	**2.9202**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2181	7.7537	1.9228	0.0228	0.5420	0.0315	0.5736	0.1484	0.0302	0.1786		2,503.7631	2,503.7631	0.2453		2,509.8947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.2958**	**7.8000**	**2.4203**	**0.0243**	**0.7063**	**0.0327**	**0.7390**	**0.1920**	**0.0312**	**0.2232**		**2,650.2994**	**2,650.2994**	**0.2490**		**2,656.5241**

3.4 Building Construction - Phase I - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1941	6.2603	1.8173	0.0162	0.4394	0.0184	0.4578	0.1265	0.0176	0.1441		1,747.3527	1,747.3527	0.1459		1,750.9996
Worker	1.2706	0.7578	8.1342	0.0241	2.6862	0.0186	2.7049	0.7125	0.0172	0.7297		2,395.8684	2,395.8684	0.0609		2,397.3912
Total	**1.4647**	**7.0181**	**9.9515**	**0.0403**	**3.1256**	**0.0371**	**3.1627**	**0.8390**	**0.0348**	**0.8737**		**4,143.2211**	**4,143.2211**	**0.2068**		**4,148.3908**

3.4 Building Construction - Phase I - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1941	6.2603	1.8173	0.0162	0.4394	0.0184	0.4578	0.1265	0.0176	0.1441		1,747.3527	1,747.3527	0.1459		1,750.9996
Worker	1.2706	0.7578	8.1342	0.0241	2.6862	0.0186	2.7049	0.7125	0.0172	0.7297		2,395.8684	2,395.8684	0.0609		2,397.3912
Total	**1.4647**	**7.0181**	**9.9515**	**0.0403**	**3.1256**	**0.0371**	**3.1627**	**0.8390**	**0.0348**	**0.8737**		**4,143.2211**	**4,143.2211**	**0.2068**		**4,148.3908**

3.4 Building Construction - Phase I - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1806	5.8843	1.7232	0.0161	0.4394	0.0160	0.4554	0.1265	0.0153	0.1418		1,730.9506	1,730.9506	0.1403		1,734.4588
Worker	1.1970	0.6839	7.5114	0.0232	2.6862	0.0182	2.7044	0.7125	0.0167	0.7292		2,307.8494	2,307.8494	0.0550		2,309.2240
Total	**1.3776**	**6.5681**	**9.2346**	**0.0392**	**3.1257**	**0.0342**	**3.1598**	**0.8390**	**0.0320**	**0.8710**		**4,038.8000**	**4,038.8000**	**0.1953**		**4,043.6828**

3.4 Building Construction - Phase I - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1806	5.8843	1.7232	0.0161	0.4394	0.0160	0.4554	0.1265	0.0153	0.1418		1,730.9506	1,730.9506	0.1403		1,734.4588
Worker	1.1970	0.6839	7.5114	0.0232	2.6862	0.0182	2.7044	0.7125	0.0167	0.7292		2,307.8494	2,307.8494	0.0550		2,309.2240
Total	**1.3776**	**6.5681**	**9.2346**	**0.0392**	**3.1257**	**0.0342**	**3.1598**	**0.8390**	**0.0320**	**0.8710**		**4,038.8000**	**4,038.8000**	**0.1953**		**4,043.6828**

3.5 Paving - Phase I - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5647**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0549**	**0.0314**	**0.3446**	**1.0600e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**105.8647**	**105.8647**	**2.5200e-003**		**105.9277**

3.5 Paving - Phase I - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.4619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0228**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0549**	**0.0314**	**0.3446**	**1.0600e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**105.8647**	**105.8647**	**2.5200e-003**		**105.9277**

3.6 Architectural Coating - Phase I - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**74.3519**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2379	0.1359	1.4931	4.6000e-003	0.5340	3.6100e-003	0.5376	0.1416	3.3200e-003	0.1450		458.7468	458.7468	0.0109		459.0201
Total	**0.2379**	**0.1359**	**1.4931**	**4.6000e-003**	**0.5340**	**3.6100e-003**	**0.5376**	**0.1416**	**3.3200e-003**	**0.1450**		**458.7468**	**458.7468**	**0.0109**		**459.0201**

3.6 Architectural Coating - Phase I - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**74.2068**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2379	0.1359	1.4931	4.6000e-003	0.5340	3.6100e-003	0.5376	0.1416	3.3200e-003	0.1450		458.7468	458.7468	0.0109		459.0201
Total	**0.2379**	**0.1359**	**1.4931**	**4.6000e-003**	**0.5340**	**3.6100e-003**	**0.5376**	**0.1416**	**3.3200e-003**	**0.1450**		**458.7468**	**458.7468**	**0.0109**		**459.0201**

3.7 Site Preparation - Phase II - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0659	0.0376	0.4135	1.2700e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		127.0376	127.0376	3.0300e-003		127.1133
Total	**0.0659**	**0.0376**	**0.4135**	**1.2700e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**127.0376**	**127.0376**	**3.0300e-003**		**127.1133**

3.7 Site Preparation - Phase II - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**0.9312**	**19.0656**	**22.9600**	**0.0380**	**8.1298**	**0.9462**	**9.0760**	**4.4688**	**0.9462**	**5.4150**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0659	0.0376	0.4135	1.2700e-003	0.1479	1.0000e-003	0.1489	0.0392	9.2000e-004	0.0401		127.0376	127.0376	3.0300e-003		127.1133
Total	**0.0659**	**0.0376**	**0.4135**	**1.2700e-003**	**0.1479**	**1.0000e-003**	**0.1489**	**0.0392**	**9.2000e-004**	**0.0401**		**127.0376**	**127.0376**	**3.0300e-003**		**127.1133**

3.8 Grading - Phase II - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7083	0.0000	8.7083	3.6018	0.0000	3.6018			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.7083**	**1.6349**	**10.3432**	**3.6018**	**1.5041**	**5.1059**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2050	7.0327	1.9177	0.0225	0.5421	0.0268	0.5690	0.1484	0.0257	0.1741		2,470.4818	2,470.4818	0.2410		2,476.5065
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0732	0.0418	0.4594	1.4200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		141.1529	141.1529	3.3600e-003		141.2369
Total	**0.2782**	**7.0745**	**2.3771**	**0.0239**	**0.7064**	**0.0280**	**0.7344**	**0.1920**	**0.0267**	**0.2187**		**2,611.6347**	**2,611.6347**	**0.2444**		**2,617.7435**

3.8 Grading - Phase II - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9187	0.0000	3.9187	1.6208	0.0000	1.6208			0.0000			0.0000
Off-Road	1.5231	29.9782	36.7226	0.0621		1.2994	1.2994		1.2994	1.2994	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**1.5231**	**29.9782**	**36.7226**	**0.0621**	**3.9187**	**1.2994**	**5.2182**	**1.6208**	**1.2994**	**2.9202**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2050	7.0327	1.9177	0.0225	0.5421	0.0268	0.5690	0.1484	0.0257	0.1741		2,470.4818	2,470.4818	0.2410		2,476.5065
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0732	0.0418	0.4594	1.4200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		141.1529	141.1529	3.3600e-003		141.2369
Total	**0.2782**	**7.0745**	**2.3771**	**0.0239**	**0.7064**	**0.0280**	**0.7344**	**0.1920**	**0.0267**	**0.2187**		**2,611.6347**	**2,611.6347**	**0.2444**		**2,617.7435**

3.9 Building Construction - Phase II - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1806	5.8843	1.7232	0.0161	0.4394	0.0160	0.4554	0.1265	0.0153	0.1418		1,730.9506	1,730.9506	0.1403		1,734.4588
Worker	1.1970	0.6839	7.5114	0.0232	2.6862	0.0182	2.7044	0.7125	0.0167	0.7292		2,307.8494	2,307.8494	0.0550		2,309.2240
Total	**1.3776**	**6.5681**	**9.2346**	**0.0392**	**3.1257**	**0.0342**	**3.1598**	**0.8390**	**0.0320**	**0.8710**		**4,038.8000**	**4,038.8000**	**0.1953**		**4,043.6828**

3.9 Building Construction - Phase II - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1806	5.8843	1.7232	0.0161	0.4394	0.0160	0.4554	0.1265	0.0153	0.1418		1,730.9506	1,730.9506	0.1403		1,734.4588
Worker	1.1970	0.6839	7.5114	0.0232	2.6862	0.0182	2.7044	0.7125	0.0167	0.7292		2,307.8494	2,307.8494	0.0550		2,309.2240
Total	**1.3776**	**6.5681**	**9.2346**	**0.0392**	**3.1257**	**0.0342**	**3.1598**	**0.8390**	**0.0320**	**0.8710**		**4,038.8000**	**4,038.8000**	**0.1953**		**4,043.6828**

3.9 Building Construction - Phase II - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1341	4.4801	1.5454	0.0157	0.4395	6.0700e-003	0.4456	0.1265	5.8000e-003	0.1323		1,692.7390	1,692.7390	0.1247		1,695.8573
Worker	1.1292	0.6176	6.9228	0.0223	2.6862	0.0177	2.7040	0.7125	0.0163	0.7288		2,219.4822	2,219.4822	0.0495		2,220.7188
Total	**1.2634**	**5.0977**	**8.4682**	**0.0379**	**3.1257**	**0.0238**	**3.1495**	**0.8390**	**0.0221**	**0.8611**		**3,912.2211**	**3,912.2211**	**0.1742**		**3,916.5761**

3.9 Building Construction - Phase II - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1341	4.4801	1.5454	0.0157	0.4395	6.0700e-003	0.4456	0.1265	5.8000e-003	0.1323		1,692.7390	1,692.7390	0.1247		1,695.8573
Worker	1.1292	0.6176	6.9228	0.0223	2.6862	0.0177	2.7040	0.7125	0.0163	0.7288		2,219.4822	2,219.4822	0.0495		2,220.7188
Total	**1.2634**	**5.0977**	**8.4682**	**0.0379**	**3.1257**	**0.0238**	**3.1495**	**0.8390**	**0.0221**	**0.8611**		**3,912.2211**	**3,912.2211**	**0.1742**		**3,916.5761**

3.10 Paving - Phase II - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.4619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4946**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

3.10 Paving - Phase II - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.4619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0228**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

3.11 Architectural Coating - Phase II - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**74.3391**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2245	0.1228	1.3761	4.4300e-003	0.5340	3.5200e-003	0.5375	0.1416	3.2500e-003	0.1449		441.1815	441.1815	9.8300e-003		441.4273
Total	**0.2245**	**0.1228**	**1.3761**	**4.4300e-003**	**0.5340**	**3.5200e-003**	**0.5375**	**0.1416**	**3.2500e-003**	**0.1449**		**441.1815**	**441.1815**	**9.8300e-003**		**441.4273**

3.11 Architectural Coating - Phase II - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**74.2068**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2245	0.1228	1.3761	4.4300e-003	0.5340	3.5200e-003	0.5375	0.1416	3.2500e-003	0.1449		441.1815	441.1815	9.8300e-003		441.4273
Total	**0.2245**	**0.1228**	**1.3761**	**4.4300e-003**	**0.5340**	**3.5200e-003**	**0.5375**	**0.1416**	**3.2500e-003**	**0.1449**		**441.1815**	**441.1815**	**9.8300e-003**		**441.4273**

3.12 Site Preparation - Phase III - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**18.0663**	**1.2660**	**19.3323**	**9.9307**	**1.1647**	**11.0954**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0340	0.3811	1.2300e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		122.1733	122.1733	2.7200e-003		122.2414
Total	**0.0622**	**0.0340**	**0.3811**	**1.2300e-003**	**0.1479**	**9.8000e-004**	**0.1488**	**0.0392**	**9.0000e-004**	**0.0401**		**122.1733**	**122.1733**	**2.7200e-003**		**122.2414**

3.12 Site Preparation - Phase III - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0381		0.9462	0.9462		0.9462	0.9462	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**0.9312**	**19.0656**	**22.9600**	**0.0381**	**8.1298**	**0.9462**	**9.0760**	**4.4688**	**0.9462**	**5.4150**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0340	0.3811	1.2300e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		122.1733	122.1733	2.7200e-003		122.2414
Total	**0.0622**	**0.0340**	**0.3811**	**1.2300e-003**	**0.1479**	**9.8000e-004**	**0.1488**	**0.0392**	**9.0000e-004**	**0.0401**		**122.1733**	**122.1733**	**2.7200e-003**		**122.2414**

3.13 Grading - Phase III - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7083	0.0000	8.7083	3.6018	0.0000	3.6018			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**8.7083**	**1.4245**	**10.1328**	**3.6018**	**1.3105**	**4.9123**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1390	4.5948	1.7691	0.0217	0.5422	9.7400e-003	0.5520	0.1485	9.3200e-003	0.1578		2,392.2596	2,392.2596	0.2261		2,397.9132
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0691	0.0378	0.4234	1.3600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		135.7481	135.7481	3.0300e-003		135.8238
Total	**0.2080**	**4.6325**	**2.1925**	**0.0231**	**0.7065**	**0.0108**	**0.7173**	**0.1921**	**0.0103**	**0.2024**		**2,528.0077**	**2,528.0077**	**0.2292**		**2,533.7370**

3.13 Grading - Phase III - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9187	0.0000	3.9187	1.6208	0.0000	1.6208			0.0000			0.0000
Off-Road	1.5231	29.9782	36.7226	0.0621		1.2994	1.2994		1.2994	1.2994	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**1.5231**	**29.9782**	**36.7226**	**0.0621**	**3.9187**	**1.2994**	**5.2182**	**1.6208**	**1.2994**	**2.9202**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1390	4.5948	1.7691	0.0217	0.5422	9.7400e-003	0.5520	0.1485	9.3200e-003	0.1578		2,392.2596	2,392.2596	0.2261		2,397.9132
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0691	0.0378	0.4234	1.3600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		135.7481	135.7481	3.0300e-003		135.8238
Total	**0.2080**	**4.6325**	**2.1925**	**0.0231**	**0.7065**	**0.0108**	**0.7173**	**0.1921**	**0.0103**	**0.2024**		**2,528.0077**	**2,528.0077**	**0.2292**		**2,533.7370**

3.14 Building Construction - Phase III - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1341	4.4801	1.5454	0.0157	0.4395	6.0700e-003	0.4456	0.1265	5.8000e-003	0.1323		1,692.7390	1,692.7390	0.1247		1,695.8573
Worker	1.1292	0.6176	6.9228	0.0223	2.6862	0.0177	2.7040	0.7125	0.0163	0.7288		2,219.4822	2,219.4822	0.0495		2,220.7188
Total	**1.2634**	**5.0977**	**8.4682**	**0.0379**	**3.1257**	**0.0238**	**3.1495**	**0.8390**	**0.0221**	**0.8611**		**3,912.2211**	**3,912.2211**	**0.1742**		**3,916.5761**

3.14 Building Construction - Phase III - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.6739**	**14.2261**	**17.8738**	**0.0269**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1341	4.4801	1.5454	0.0157	0.4395	6.0700e-003	0.4456	0.1265	5.8000e-003	0.1323		1,692.7390	1,692.7390	0.1247		1,695.8573
Worker	1.1292	0.6176	6.9228	0.0223	2.6862	0.0177	2.7040	0.7125	0.0163	0.7288		2,219.4822	2,219.4822	0.0495		2,220.7188
Total	**1.2634**	**5.0977**	**8.4682**	**0.0379**	**3.1257**	**0.0238**	**3.1495**	**0.8390**	**0.0221**	**0.8611**		**3,912.2211**	**3,912.2211**	**0.1742**		**3,916.5761**

3.14 Building Construction - Phase III - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1297	4.4295	1.5041	0.0156	0.4395	5.9200e-003	0.4454	0.1265	5.6600e-003	0.1322		1,684.6523	1,684.6523	0.1224		1,687.7123
Worker	1.0705	0.5610	6.4329	0.0215	2.6862	0.0175	2.7037	0.7125	0.0161	0.7286		2,140.9311	2,140.9311	0.0451		2,142.0573
Total	**1.2002**	**4.9906**	**7.9370**	**0.0371**	**3.1258**	**0.0234**	**3.1491**	**0.8390**	**0.0218**	**0.8608**		**3,825.5834**	**3,825.5834**	**0.1675**		**3,829.7696**

3.14 Building Construction - Phase III - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0270		0.9036	0.9036		0.9036	0.9036	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.6739**	**14.2261**	**17.8738**	**0.0270**		**0.9036**	**0.9036**		**0.9036**	**0.9036**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1297	4.4295	1.5041	0.0156	0.4395	5.9200e-003	0.4454	0.1265	5.6600e-003	0.1322		1,684.6523	1,684.6523	0.1224		1,687.7123
Worker	1.0705	0.5610	6.4329	0.0215	2.6862	0.0175	2.7037	0.7125	0.0161	0.7286		2,140.9311	2,140.9311	0.0451		2,142.0573
Total	**1.2002**	**4.9906**	**7.9370**	**0.0371**	**3.1258**	**0.0234**	**3.1491**	**0.8390**	**0.0218**	**0.8608**		**3,825.5834**	**3,825.5834**	**0.1675**		**3,829.7696**

3.15 Paving - Phase III - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.4619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4500**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0491	0.0257	0.2951	9.8000e-004	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		98.2079	98.2079	2.0700e-003		98.2595
Total	**0.0491**	**0.0257**	**0.2951**	**9.8000e-004**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**98.2079**	**98.2079**	**2.0700e-003**		**98.2595**

3.15 Paving - Phase III - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.4619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0228**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0491	0.0257	0.2951	9.8000e-004	0.1232	8.0000e-004	0.1240	0.0327	7.4000e-004	0.0334		98.2079	98.2079	2.0700e-003		98.2595
Total	**0.0491**	**0.0257**	**0.2951**	**9.8000e-004**	**0.1232**	**8.0000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**98.2079**	**98.2079**	**2.0700e-003**		**98.2595**

3.16 Architectural Coating - Phase III - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**74.3282**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2128	0.1115	1.2787	4.2700e-003	0.5340	3.4700e-003	0.5374	0.1416	3.2000e-003	0.1448		425.5673	425.5673	8.9500e-003		425.7912
Total	**0.2128**	**0.1115**	**1.2787**	**4.2700e-003**	**0.5340**	**3.4700e-003**	**0.5374**	**0.1416**	**3.2000e-003**	**0.1448**		**425.5673**	**425.5673**	**8.9500e-003**		**425.7912**

3.16 Architectural Coating - Phase III - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.1474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**74.2068**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2128	0.1115	1.2787	4.2700e-003	0.5340	3.4700e-003	0.5374	0.1416	3.2000e-003	0.1448		425.5673	425.5673	8.9500e-003		425.7912
Total	**0.2128**	**0.1115**	**1.2787**	**4.2700e-003**	**0.5340**	**3.4700e-003**	**0.5374**	**0.1416**	**3.2000e-003**	**0.1448**		**425.5673**	**425.5673**	**8.9500e-003**		**425.7912**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Integrate Below Market Rate Housing

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.0362	11.5672	38.6470	0.1431	14.8043	0.1107	14.9150	3.9533	0.1028	4.0561		14,518.5538	14,518.5538	0.5615		14,532.5915
Unmitigated	3.0780	11.8136	39.8474	0.1487	15.4211	0.1147	15.5358	4.1180	0.1065	4.2245		15,091.4727	15,091.4727	0.5799		15,105.9692

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	2,635.20	2,635.20	2635.20	7,281,249	6,989,999
Parking Lot	0.00	0.00	0.00		
User Defined Industrial	2.00	2.00	2.00	4,975	4,776
Total	2,637.20	2,637.20	2,637.20	7,286,223	6,994,775

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	32.90	18.00	49.10	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
User Defined Industrial	9.50	7.30	7.30	18.00	32.90	49.10	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.597457	0.040465	0.187858	0.105115	0.017041	0.006067	0.020072	0.018206	0.001182	0.001040	0.003816	0.000389	0.001293
Parking Lot	0.597457	0.040465	0.187858	0.105115	0.017041	0.006067	0.020072	0.018206	0.001182	0.001040	0.003816	0.000389	0.001293
User Defined Industrial	0.597457	0.040465	0.187858	0.105115	0.017041	0.006067	0.020072	0.018206	0.001182	0.001040	0.003816	0.000389	0.001293

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631
NaturalGas Unmitigated	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	12584.8	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1357**	**1.1598**	**0.4935**	**7.4000e-003**		**0.0938**	**0.0938**		**0.0938**	**0.0938**		**1,480.5648**	**1,480.5648**	**0.0284**	**0.0271**	**1,489.3631**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	12.5848	0.1357	1.1598	0.4935	7.4000e-003		0.0938	0.0938		0.0938	0.0938		1,480.5648	1,480.5648	0.0284	0.0271	1,489.3631
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1357**	**1.1598**	**0.4935**	**7.4000e-003**		**0.0938**	**0.0938**		**0.0938**	**0.0938**		**1,480.5648**	**1,480.5648**	**0.0284**	**0.0271**	**1,489.3631**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.7091	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648	0.0000	53.6224	53.6224	0.0517	0.0000	54.9146
Unmitigated	6.7091	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648	0.0000	53.6224	53.6224	0.0517	0.0000	54.9146

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7110					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0993					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8988	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648		53.6224	53.6224	0.0517		54.9146
Total	**6.7091**	**0.3427**	**29.7548**	**1.5700e-003**		**0.1648**	**0.1648**		**0.1648**	**0.1648**	**0.0000**	**53.6224**	**53.6224**	**0.0517**	**0.0000**	**54.9146**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7110					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0993					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8988	0.3427	29.7548	1.5700e-003		0.1648	0.1648		0.1648	0.1648		53.6224	53.6224	0.0517		54.9146
Total	**6.7091**	**0.3427**	**29.7548**	**1.5700e-003**		**0.1648**	**0.1648**		**0.1648**	**0.1648**	**0.0000**	**53.6224**	**53.6224**	**0.0517**	**0.0000**	**54.9146**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	26	200	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	0.1641	0.4587	0.4184	7.9000e-004		0.0241	0.0241		0.0241	0.0241		83.9514	83.9514	0.0118		84.2457
Total	**0.1641**	**0.4587**	**0.4184**	**7.9000e-004**		**0.0241**	**0.0241**		**0.0241**	**0.0241**		**83.9514**	**83.9514**	**0.0118**		**84.2457**

11.0 Vegetation

Somis

Ventura County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.15	6,530.00	0
Parking Lot	655.00	Space	6.16	165,735.00	0
Apartments Low Rise	360.00	Dwelling Unit	22.50	229,012.00	1102

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	530.48	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted for SB 100 RPS of 40% renewables by 2024.

Land Use - User-defined industrial for CWWTF; building and parking SF per site plan; parking lot SF/acre includes appx 0.27 acre easement road

Construction Phase - CalEEMod default building const. length for 360 units = 440. Therefore, each building const. phase assumed to be 440/3. Other phases kept at default lengths.

Trips and VMT -

Grading -

Architectural Coating -

Vehicle Trips - Trip rates from ATE Traffic Study (2020)

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Energy Use - All Title 24 electricity for residential use to be provided by solar per 2019 Building Energy Efficiency Standards

Water And Wastewater -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation - 100% affordable housing

Energy Mitigation -

Water Mitigation - Compliance with 2019 CALGreen

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps - 200 kW generator, tested 30 minutes per week per applicant estimates.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	440.00	147.00
tblConstructionPhase	NumDays	440.00	147.00
tblConstructionPhase	NumDays	440.00	147.00

tblEnergyUse	T24E	177.01	0.00
tblGrading	MaterialImported	0.00	11,200.00
tblGrading	MaterialImported	0.00	11,200.00
tblGrading	MaterialImported	0.00	11,200.00
tblLandUse	LandUseSquareFeet	0.00	6,530.00
tblLandUse	LandUseSquareFeet	262,000.00	165,735.00
tblLandUse	LandUseSquareFeet	360,000.00	229,012.00
tblLandUse	LotAcreage	0.00	0.15
tblLandUse	LotAcreage	5.89	6.16
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	702.44	530.48
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblTripsAndVMT	VendorTripNumber	67.00	65.00
tblTripsAndVMT	VendorTripNumber	67.00	65.00
tblTripsAndVMT	VendorTripNumber	67.00	65.00
tblTripsAndVMT	WorkerTripNumber	66.00	65.00
tblTripsAndVMT	WorkerTripNumber	332.00	327.00
tblTripsAndVMT	WorkerTripNumber	66.00	65.00
tblTripsAndVMT	WorkerTripNumber	332.00	327.00
tblTripsAndVMT	WorkerTripNumber	66.00	65.00
tblTripsAndVMT	WorkerTripNumber	332.00	327.00
tblVehicleTrips	CC_TTP	0.00	32.90
tblVehicleTrips	CNW_TTP	0.00	49.10
tblVehicleTrips	CW_TTP	0.00	18.00
tblVehicleTrips	DV_TP	0.00	11.00
tblVehicleTrips	PB_TP	0.00	3.00
tblVehicleTrips	PR_TP	0.00	86.00

tblVehicleTrips	ST_TR	7.16	7.32
tblVehicleTrips	ST_TR	0.00	2.00
tblVehicleTrips	SU_TR	6.07	7.32
tblVehicleTrips	SU_TR	0.00	2.00
tblVehicleTrips	WD_TR	6.59	7.32
tblVehicleTrips	WD_TR	0.00	2.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2480	2.4478	1.8458	4.6100e-003	0.4965	0.0992	0.5957	0.2126	0.0920	0.3046	0.0000	416.7367	416.7367	0.0804	0.0000	418.7455
2022	1.6370	2.9781	2.8143	7.0400e-003	0.5968	0.1177	0.7145	0.2396	0.1095	0.3490	0.0000	635.9962	635.9962	0.1128	0.0000	638.8161
2023	1.6067	2.5810	2.7179	6.9400e-003	0.5968	0.1004	0.6972	0.2396	0.0934	0.3330	0.0000	626.7104	626.7104	0.1111	0.0000	629.4876
2024	1.4880	1.3352	1.8017	4.5400e-003	0.2016	0.0488	0.2504	0.0542	0.0458	0.0999	0.0000	409.1812	409.1812	0.0550	0.0000	410.5561
Maximum	**1.6370**	**2.9781**	**2.8143**	**7.0400e-003**	**0.5968**	**0.1177**	**0.7145**	**0.2396**	**0.1095**	**0.3490**	**0.0000**	**635.9962**	**635.9962**	**0.1128**	**0.0000**	**638.8161**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2480	2.4478	1.8458	4.6100e-003	0.2894	0.0992	0.3886	0.1134	0.0920	0.2054	0.0000	416.7364	416.7364	0.0804	0.0000	418.7453
2022	1.6370	2.9781	2.8143	7.0400e-003	0.3897	0.1177	0.5073	0.1404	0.1095	0.2498	0.0000	635.9958	635.9958	0.1128	0.0000	638.8156
2023	1.6067	2.5810	2.7179	6.9400e-003	0.3897	0.1004	0.4901	0.1404	0.0934	0.2338	0.0000	626.7100	626.7100	0.1111	0.0000	629.4872
2024	1.4880	1.3352	1.8017	4.5400e-003	0.2016	0.0488	0.2504	0.0542	0.0458	0.0999	0.0000	409.1810	409.1810	0.0550	0.0000	410.5559
Maximum	**1.6370**	**2.9781**	**2.8143**	**7.0400e-003**	**0.3897**	**0.1177**	**0.5073**	**0.1404**	**0.1095**	**0.2498**	**0.0000**	**635.9958**	**635.9958**	**0.1128**	**0.0000**	**638.8156**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**32.85**	**0.00**	**27.52**	**39.89**	**0.00**	**27.39**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-1-2021**	**9-30-2021**	1.7728	1.7728
2	**10-1-2021**	**12-31-2021**	0.9139	0.9139
3	**1-1-2022**	**3-31-2022**	1.6243	1.6243
4	**4-1-2022**	**6-30-2022**	1.1601	1.1601
5	**7-1-2022**	**9-30-2022**	1.7732	1.7732
6	**10-1-2022**	**12-31-2022**	1.0758	1.0758
7	**1-1-2023**	**3-31-2023**	1.4348	1.4348
8	**4-1-2023**	**6-30-2023**	0.9965	0.9965

9	**7-1-2023**	**9-30-2023**	1.7388	1.7388
10	**10-1-2023**	**12-31-2023**	1.1623	1.1623
11	**1-1-2024**	**3-31-2024**	0.6859	0.6859
12	**4-1-2024**	**6-30-2024**	0.6442	0.6442
13	**7-1-2024**	**9-30-2024**	1.4808	1.4808
		Highest	1.7732	1.7732

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1407	0.0308	2.6720	1.4000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	4.3781	4.3781	4.1900e-003	0.0000	4.4828
Energy	0.0248	0.2117	0.0901	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	604.1149	604.1149	0.0196	7.8800e-003	606.9521
Mobile	0.5558	2.1435	7.1117	0.0273	2.7555	0.0208	2.7763	0.7369	0.0193	0.7562	0.0000	2,510.1964	2,510.1964	0.0946	0.0000	2,512.5604
Stationary	4.2700e-003	0.0119	0.0109	2.0000e-005		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	1.9802	1.9802	2.8000e-004	0.0000	1.9871
Waste						0.0000	0.0000		0.0000	0.0000	33.6153	0.0000	33.6153	1.9866	0.0000	83.2805
Water						0.0000	0.0000		0.0000	0.0000	7.4413	113.0196	120.4610	0.7690	0.0191	145.3809
Total	**1.7255**	**2.3979**	**9.8846**	**0.0288**	**2.7555**	**0.0534**	**2.8089**	**0.7369**	**0.0519**	**0.7888**	**41.0566**	**3,233.6892**	**3,274.7458**	**2.8742**	**0.0270**	**3,354.6439**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1407	0.0308	2.6720	1.4000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	4.3781	4.3781	4.1900e-003	0.0000	4.4828
Energy	0.0248	0.2117	0.0901	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	604.1149	604.1149	0.0196	7.8800e-003	606.9521
Mobile	0.5482	2.0991	6.8919	0.0262	2.6453	0.0201	2.6654	0.7075	0.0186	0.7261	0.0000	2,415.1006	2,415.1006	0.0915	0.0000	2,417.3887
Stationary	4.2700e-003	0.0119	0.0109	2.0000e-005		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	1.9802	1.9802	2.8000e-004	0.0000	1.9871
Waste						0.0000	0.0000		0.0000	0.0000	33.6153	0.0000	33.6153	1.9866	0.0000	83.2805
Water						0.0000	0.0000		0.0000	0.0000	5.9531	98.3218	104.2749	0.6155	0.0154	124.2412
Total	**1.7179**	**2.3534**	**9.6648**	**0.0277**	**2.6453**	**0.0527**	**2.6979**	**0.7075**	**0.0512**	**0.7587**	**39.5684**	**3,123.8956**	**3,163.4639**	**2.7177**	**0.0232**	**3,238.3324**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.44**	**1.85**	**2.22**	**3.61**	**4.00**	**1.37**	**3.95**	**4.00**	**1.31**	**3.82**	**3.62**	**3.40**	**3.40**	**5.45**	**13.89**	**3.47**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation - Phase I	Site Preparation	7/1/2021	7/28/2021	5	20	
2	Grading - Phase I	Grading	7/29/2021	9/29/2021	5	45	
3	Building Construction - Phase I	Building Construction	9/30/2021	4/22/2022	5	147	
4	Paving - Phase I	Paving	4/23/2022	6/10/2022	5	35	
5	Architectural Coating - Phase I	Architectural Coating	6/11/2022	7/29/2022	5	35	
6	Site Preparation - Phase II	Site Preparation	7/30/2022	8/26/2022	5	20	
7	Grading - Phase II	Grading	8/27/2022	10/28/2022	5	45	
8	Building Construction - Phase II	Building Construction	10/29/2022	5/23/2023	5	147	
9	Paving - Phase II	Paving	5/24/2023	7/11/2023	5	35	
10	Architectural Coating - Phase II	Architectural Coating	7/12/2023	8/29/2023	5	35	
11	Site Preparation - Phase III	Site Preparation	8/30/2023	9/26/2023	5	20	
12	Grading - Phase III	Grading	9/27/2023	11/28/2023	5	45	
13	Building Construction - Phase III	Building Construction	11/29/2023	6/20/2024	5	147	
14	Paving - Phase III	Paving	6/21/2024	8/8/2024	5	35	
15	Architectural Coating - Phase III	Architectural Coating	8/9/2024	9/26/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 6.16

Residential Indoor: 463,749; Residential Outdoor: 154,583; Non-Residential Indoor: 9,795; Non-Residential Outdoor: 3,265; Striped Parking Area: 9,944 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation - Phase I	Rubber Tired Dozers	3	8.00	247	0.40

Site Preparation - Phase I	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase I	Excavators	2	8.00	158	0.38
Grading - Phase I	Graders	1	8.00	187	0.41
Grading - Phase I	Rubber Tired Dozers	1	8.00	247	0.40
Grading - Phase I	Scrapers	2	8.00	367	0.48
Grading - Phase I	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Phase I	Cranes	1	7.00	231	0.29
Building Construction - Phase I	Forklifts	3	8.00	89	0.20
Building Construction - Phase I	Generator Sets	1	8.00	84	0.74
Building Construction - Phase I	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Phase I	Welders	1	8.00	46	0.45
Paving - Phase I	Pavers	2	8.00	130	0.42
Paving - Phase I	Paving Equipment	2	8.00	132	0.36
Paving - Phase I	Rollers	2	8.00	80	0.38
Architectural Coating - Phase I	Air Compressors	1	6.00	78	0.48
Site Preparation - Phase II	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation - Phase II	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase II	Excavators	2	8.00	158	0.38
Grading - Phase II	Graders	1	8.00	187	0.41
Grading - Phase II	Rubber Tired Dozers	1	8.00	247	0.40
Grading - Phase II	Scrapers	2	8.00	367	0.48
Grading - Phase II	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Phase II	Cranes	1	7.00	231	0.29
Building Construction - Phase II	Forklifts	3	8.00	89	0.20
Building Construction - Phase II	Generator Sets	1	8.00	84	0.74
Building Construction - Phase II	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Phase II	Welders	1	8.00	46	0.45

Paving - Phase II	Pavers	2	8.00	130	0.42
Paving - Phase II	Paving Equipment	2	8.00	132	0.36
Paving - Phase II	Rollers	2	8.00	80	0.38
Architectural Coating - Phase II	Air Compressors	1	6.00	78	0.48
Site Preparation - Phase III	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation - Phase III	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading - Phase III	Excavators	2	8.00	158	0.38
Grading - Phase III	Graders	1	8.00	187	0.41
Grading - Phase III	Rubber Tired Dozers	1	8.00	247	0.40
Grading - Phase III	Scrapers	2	8.00	367	0.48
Grading - Phase III	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Phase III	Cranes	1	7.00	231	0.29
Building Construction - Phase III	Forklifts	3	8.00	89	0.20
Building Construction - Phase III	Generator Sets	1	8.00	84	0.74
Building Construction - Phase III	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Phase III	Welders	1	8.00	46	0.45
Paving - Phase III	Pavers	2	8.00	130	0.42
Paving - Phase III	Paving Equipment	2	8.00	132	0.36
Paving - Phase III	Rollers	2	8.00	80	0.38
Architectural Coating - Phase III	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation - Phase I	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase I	8	20.00	0.00	1,400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase I	9	327.00	65.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase I	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Phase I	1	65.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation - Phase II	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase II	8	20.00	0.00	1,400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase II	9	327.00	65.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase II	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Phase II	1	65.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation - Phase III	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Phase III	8	20.00	0.00	1,400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Phase III	9	327.00	65.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Phase III	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Phase III	1	65.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - Phase I - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.0000e-004	4.4300e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.2061	1.2061	3.0000e-005	0.0000	1.2069
Total	**6.2000e-004**	**4.0000e-004**	**4.4300e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.9000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2061**	**1.2061**	**3.0000e-005**	**0.0000**	**1.2069**

3.2 Site Preparation - Phase I - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0813	0.0000	0.0813	0.0447	0.0000	0.0447	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.0813**	**0.0204**	**0.1017**	**0.0447**	**0.0188**	**0.0635**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.0000e-004	4.4300e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.2061	1.2061	3.0000e-005	0.0000	1.2069
Total	**6.2000e-004**	**4.0000e-004**	**4.4300e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.9000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2061**	**1.2061**	**3.0000e-005**	**0.0000**	**1.2069**

3.3 Grading - Phase I - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1959	0.0000	0.1959	0.0810	0.0000	0.0810	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0943	1.0440	0.6948	1.4000e-003		0.0447	0.0447		0.0411	0.0411	0.0000	122.6137	122.6137	0.0397	0.0000	123.6051
Total	**0.0943**	**1.0440**	**0.6948**	**1.4000e-003**	**0.1959**	**0.0447**	**0.2406**	**0.0810**	**0.0411**	**0.1221**	**0.0000**	**122.6137**	**122.6137**	**0.0397**	**0.0000**	**123.6051**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.8200e-003	0.1766	0.0417	5.2000e-004	0.0120	7.0000e-004	0.0127	3.2900e-003	6.7000e-004	3.9600e-003	0.0000	51.5869	51.5869	4.9100e-003	0.0000	51.7098
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5600e-003	1.0100e-003	0.0111	3.0000e-005	3.6300e-003	3.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.9000e-004	0.0000	3.0153	3.0153	8.0000e-005	0.0000	3.0172
Total	**6.3800e-003**	**0.1776**	**0.0528**	**5.5000e-004**	**0.0156**	**7.3000e-004**	**0.0164**	**4.2500e-003**	**6.9000e-004**	**4.9500e-003**	**0.0000**	**54.6022**	**54.6022**	**4.9900e-003**	**0.0000**	**54.7270**

3.3 Grading - Phase I - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0882	0.0000	0.0882	0.0365	0.0000	0.0365	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0943	1.0440	0.6948	1.4000e-003		0.0447	0.0447		0.0411	0.0411	0.0000	122.6136	122.6136	0.0397	0.0000	123.6050
Total	**0.0943**	**1.0440**	**0.6948**	**1.4000e-003**	**0.0882**	**0.0447**	**0.1328**	**0.0365**	**0.0411**	**0.0776**	**0.0000**	**122.6136**	**122.6136**	**0.0397**	**0.0000**	**123.6050**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.8200e-003	0.1766	0.0417	5.2000e-004	0.0120	7.0000e-004	0.0127	3.2900e-003	6.7000e-004	3.9600e-003	0.0000	51.5869	51.5869	4.9100e-003	0.0000	51.7098
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5600e-003	1.0100e-003	0.0111	3.0000e-005	3.6300e-003	3.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.9000e-004	0.0000	3.0153	3.0153	8.0000e-005	0.0000	3.0172
Total	**6.3800e-003**	**0.1776**	**0.0528**	**5.5000e-004**	**0.0156**	**7.3000e-004**	**0.0164**	**4.2500e-003**	**6.9000e-004**	**4.9500e-003**	**0.0000**	**54.6022**	**54.6022**	**4.9900e-003**	**0.0000**	**54.7270**

3.4 Building Construction - Phase I - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0637	0.5840	0.5553	9.0000e-004		0.0321	0.0321		0.0302	0.0302	0.0000	77.5985	77.5985	0.0187	0.0000	78.0665
Total	**0.0637**	**0.5840**	**0.5553**	**9.0000e-004**		**0.0321**	**0.0321**		**0.0302**	**0.0302**	**0.0000**	**77.5985**	**77.5985**	**0.0187**	**0.0000**	**78.0665**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2800e-003	0.2124	0.0572	5.5000e-004	0.0145	6.0000e-004	0.0151	4.1800e-003	5.7000e-004	4.7500e-003	0.0000	53.8780	53.8780	4.2800e-003	0.0000	53.9851
Worker	0.0379	0.0245	0.2698	8.1000e-004	0.0883	6.2000e-004	0.0890	0.0235	5.7000e-004	0.0240	0.0000	73.4024	73.4024	1.8600e-003	0.0000	73.4489
Total	**0.0442**	**0.2369**	**0.3270**	**1.3600e-003**	**0.1028**	**1.2200e-003**	**0.1041**	**0.0276**	**1.1400e-003**	**0.0288**	**0.0000**	**127.2805**	**127.2805**	**6.1400e-003**	**0.0000**	**127.4340**

3.4 Building Construction - Phase I - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0637	0.5840	0.5553	9.0000e-004		0.0321	0.0321		0.0302	0.0302	0.0000	77.5984	77.5984	0.0187	0.0000	78.0664
Total	**0.0637**	**0.5840**	**0.5553**	**9.0000e-004**		**0.0321**	**0.0321**		**0.0302**	**0.0302**	**0.0000**	**77.5984**	**77.5984**	**0.0187**	**0.0000**	**78.0664**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2800e-003	0.2124	0.0572	5.5000e-004	0.0145	6.0000e-004	0.0151	4.1800e-003	5.7000e-004	4.7500e-003	0.0000	53.8780	53.8780	4.2800e-003	0.0000	53.9851
Worker	0.0379	0.0245	0.2698	8.1000e-004	0.0883	6.2000e-004	0.0890	0.0235	5.7000e-004	0.0240	0.0000	73.4024	73.4024	1.8600e-003	0.0000	73.4489
Total	**0.0442**	**0.2369**	**0.3270**	**1.3600e-003**	**0.1028**	**1.2200e-003**	**0.1041**	**0.0276**	**1.1400e-003**	**0.0288**	**0.0000**	**127.2805**	**127.2805**	**6.1400e-003**	**0.0000**	**127.4340**

3.4 Building Construction - Phase I - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0683	0.6246	0.6545	1.0800e-003		0.0324	0.0324		0.0305	0.0305	0.0000	92.6901	92.6901	0.0222	0.0000	93.2453
Total	**0.0683**	**0.6246**	**0.6545**	**1.0800e-003**		**0.0324**	**0.0324**		**0.0305**	**0.0305**	**0.0000**	**92.6901**	**92.6901**	**0.0222**	**0.0000**	**93.2453**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9700e-003	0.2384	0.0647	6.5000e-004	0.0173	6.2000e-004	0.0179	4.9900e-003	5.9000e-004	5.5800e-003	0.0000	63.7356	63.7356	4.9200e-003	0.0000	63.8587
Worker	0.0426	0.0264	0.2978	9.3000e-004	0.1055	7.3000e-004	0.1062	0.0280	6.7000e-004	0.0287	0.0000	84.4244	84.4244	2.0000e-003	0.0000	84.4745
Total	**0.0495**	**0.2648**	**0.3625**	**1.5800e-003**	**0.1228**	**1.3500e-003**	**0.1241**	**0.0330**	**1.2600e-003**	**0.0343**	**0.0000**	**148.1600**	**148.1600**	**6.9200e-003**	**0.0000**	**148.3332**

3.4 Building Construction - Phase I - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0683	0.6246	0.6545	1.0800e-003		0.0324	0.0324		0.0305	0.0305	0.0000	92.6900	92.6900	0.0222	0.0000	93.2451
Total	**0.0683**	**0.6246**	**0.6545**	**1.0800e-003**		**0.0324**	**0.0324**		**0.0305**	**0.0305**	**0.0000**	**92.6900**	**92.6900**	**0.0222**	**0.0000**	**93.2451**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9700e-003	0.2384	0.0647	6.5000e-004	0.0173	6.2000e-004	0.0179	4.9900e-003	5.9000e-004	5.5800e-003	0.0000	63.7356	63.7356	4.9200e-003	0.0000	63.8587
Worker	0.0426	0.0264	0.2978	9.3000e-004	0.1055	7.3000e-004	0.1062	0.0280	6.7000e-004	0.0287	0.0000	84.4244	84.4244	2.0000e-003	0.0000	84.4745
Total	**0.0495**	**0.2648**	**0.3625**	**1.5800e-003**	**0.1228**	**1.3500e-003**	**0.1241**	**0.0330**	**1.2600e-003**	**0.0343**	**0.0000**	**148.1600**	**148.1600**	**6.9200e-003**	**0.0000**	**148.3332**

3.5 Paving - Phase I - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0193	0.1947	0.2552	4.0000e-004		9.9400e-003	9.9400e-003		9.1400e-003	9.1400e-003	0.0000	35.0482	35.0482	0.0113	0.0000	35.3316
Paving	8.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0274**	**0.1947**	**0.2552**	**4.0000e-004**		**9.9400e-003**	**9.9400e-003**		**9.1400e-003**	**9.1400e-003**	**0.0000**	**35.0482**	**35.0482**	**0.0113**	**0.0000**	**35.3316**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	5.3000e-004	5.9800e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.6943	1.6943	4.0000e-005	0.0000	1.6953
Total	**8.5000e-004**	**5.3000e-004**	**5.9800e-003**	**2.0000e-005**	**2.1200e-003**	**1.0000e-005**	**2.1300e-003**	**5.6000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.6943**	**1.6943**	**4.0000e-005**	**0.0000**	**1.6953**

3.5 Paving - Phase I - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0193	0.1947	0.2552	4.0000e-004		9.9400e-003	9.9400e-003		9.1400e-003	9.1400e-003	0.0000	35.0482	35.0482	0.0113	0.0000	35.3316
Paving	8.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0274**	**0.1947**	**0.2552**	**4.0000e-004**		**9.9400e-003**	**9.9400e-003**		**9.1400e-003**	**9.1400e-003**	**0.0000**	**35.0482**	**35.0482**	**0.0113**	**0.0000**	**35.3316**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	5.3000e-004	5.9800e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.6943	1.6943	4.0000e-005	0.0000	1.6953
Total	**8.5000e-004**	**5.3000e-004**	**5.9800e-003**	**2.0000e-005**	**2.1200e-003**	**1.0000e-005**	**2.1300e-003**	**5.6000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.6943**	**1.6943**	**4.0000e-005**	**0.0000**	**1.6953**

3.6 Architectural Coating - Phase I - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5800e-003	0.0247	0.0317	5.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	4.4682	4.4682	2.9000e-004	0.0000	4.4755
Total	**1.3012**	**0.0247**	**0.0317**	**5.0000e-005**		**1.4300e-003**	**1.4300e-003**		**1.4300e-003**	**1.4300e-003**	**0.0000**	**4.4682**	**4.4682**	**2.9000e-004**	**0.0000**	**4.4755**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-003	2.3000e-003	0.0259	8.0000e-005	9.1700e-003	6.0000e-005	9.2400e-003	2.4400e-003	6.0000e-005	2.4900e-003	0.0000	7.3420	7.3420	1.7000e-004	0.0000	7.3463
Total	**3.7000e-003**	**2.3000e-003**	**0.0259**	**8.0000e-005**	**9.1700e-003**	**6.0000e-005**	**9.2400e-003**	**2.4400e-003**	**6.0000e-005**	**2.4900e-003**	**0.0000**	**7.3420**	**7.3420**	**1.7000e-004**	**0.0000**	**7.3463**

3.6 Architectural Coating - Phase I - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5800e-003	0.0247	0.0317	5.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	4.4682	4.4682	2.9000e-004	0.0000	4.4755
Total	**1.3012**	**0.0247**	**0.0317**	**5.0000e-005**		**1.4300e-003**	**1.4300e-003**		**1.4300e-003**	**1.4300e-003**	**0.0000**	**4.4682**	**4.4682**	**2.9000e-004**	**0.0000**	**4.4755**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-003	2.3000e-003	0.0259	8.0000e-005	9.1700e-003	6.0000e-005	9.2400e-003	2.4400e-003	6.0000e-005	2.4900e-003	0.0000	7.3420	7.3420	1.7000e-004	0.0000	7.3463
Total	**3.7000e-003**	**2.3000e-003**	**0.0259**	**8.0000e-005**	**9.1700e-003**	**6.0000e-005**	**9.2400e-003**	**2.4400e-003**	**6.0000e-005**	**2.4900e-003**	**0.0000**	**7.3420**	**7.3420**	**1.7000e-004**	**0.0000**	**7.3463**

3.7 Site Preparation - Phase II - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7098
Total	**0.0317**	**0.3308**	**0.1970**	**3.8000e-004**	**0.1807**	**0.0161**	**0.1968**	**0.0993**	**0.0148**	**0.1142**	**0.0000**	**33.4394**	**33.4394**	**0.0108**	**0.0000**	**33.7098**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	3.6000e-004	4.1000e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1618	1.1618	3.0000e-005	0.0000	1.1625
Total	**5.9000e-004**	**3.6000e-004**	**4.1000e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.9000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1618**	**1.1618**	**3.0000e-005**	**0.0000**	**1.1625**

3.7 Site Preparation - Phase II - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0813	0.0000	0.0813	0.0447	0.0000	0.0447	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7097
Total	**0.0317**	**0.3308**	**0.1970**	**3.8000e-004**	**0.0813**	**0.0161**	**0.0974**	**0.0447**	**0.0148**	**0.0595**	**0.0000**	**33.4394**	**33.4394**	**0.0108**	**0.0000**	**33.7097**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	3.6000e-004	4.1000e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1618	1.1618	3.0000e-005	0.0000	1.1625
Total	**5.9000e-004**	**3.6000e-004**	**4.1000e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.9000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1618**	**1.1618**	**3.0000e-005**	**0.0000**	**1.1625**

3.8 Grading - Phase II - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1959	0.0000	0.1959	0.0810	0.0000	0.0810	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0816	0.8740	0.6534	1.4000e-003		0.0368	0.0368		0.0338	0.0338	0.0000	122.7029	122.7029	0.0397	0.0000	123.6950
Total	**0.0816**	**0.8740**	**0.6534**	**1.4000e-003**	**0.1959**	**0.0368**	**0.2327**	**0.0810**	**0.0338**	**0.1149**	**0.0000**	**122.7029**	**122.7029**	**0.0397**	**0.0000**	**123.6950**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5300e-003	0.1602	0.0416	5.1000e-004	0.0120	5.9000e-004	0.0126	3.2900e-003	5.7000e-004	3.8600e-003	0.0000	50.9068	50.9068	4.8300e-003	0.0000	51.0276
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4600e-003	9.1000e-004	0.0102	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.9000e-004	0.0000	2.9045	2.9045	7.0000e-005	0.0000	2.9062
Total	**5.9900e-003**	**0.1611**	**0.0519**	**5.4000e-004**	**0.0156**	**6.1000e-004**	**0.0162**	**4.2500e-003**	**5.9000e-004**	**4.8500e-003**	**0.0000**	**53.8113**	**53.8113**	**4.9000e-003**	**0.0000**	**53.9338**

3.8 Grading - Phase II - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0882	0.0000	0.0882	0.0365	0.0000	0.0365	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0816	0.8740	0.6534	1.4000e-003		0.0368	0.0368		0.0338	0.0338	0.0000	122.7027	122.7027	0.0397	0.0000	123.6948
Total	**0.0816**	**0.8740**	**0.6534**	**1.4000e-003**	**0.0882**	**0.0368**	**0.1250**	**0.0365**	**0.0338**	**0.0703**	**0.0000**	**122.7027**	**122.7027**	**0.0397**	**0.0000**	**123.6948**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5300e-003	0.1602	0.0416	5.1000e-004	0.0120	5.9000e-004	0.0126	3.2900e-003	5.7000e-004	3.8600e-003	0.0000	50.9068	50.9068	4.8300e-003	0.0000	51.0276
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4600e-003	9.1000e-004	0.0102	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.9000e-004	0.0000	2.9045	2.9045	7.0000e-005	0.0000	2.9062
Total	**5.9900e-003**	**0.1611**	**0.0519**	**5.4000e-004**	**0.0156**	**6.1000e-004**	**0.0162**	**4.2500e-003**	**5.9000e-004**	**4.8500e-003**	**0.0000**	**53.8113**	**53.8113**	**4.9000e-003**	**0.0000**	**53.9338**

3.9 Building Construction - Phase II - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0384	0.3514	0.3682	6.1000e-004		0.0182	0.0182		0.0171	0.0171	0.0000	52.1382	52.1382	0.0125	0.0000	52.4505
Total	**0.0384**	**0.3514**	**0.3682**	**6.1000e-004**		**0.0182**	**0.0182**		**0.0171**	**0.0171**	**0.0000**	**52.1382**	**52.1382**	**0.0125**	**0.0000**	**52.4505**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9200e-003	0.1341	0.0364	3.7000e-004	9.7400e-003	3.5000e-004	0.0101	2.8100e-003	3.3000e-004	3.1400e-003	0.0000	35.8513	35.8513	2.7700e-003	0.0000	35.9205
Worker	0.0239	0.0149	0.1675	5.3000e-004	0.0593	4.1000e-004	0.0597	0.0158	3.8000e-004	0.0161	0.0000	47.4887	47.4887	1.1300e-003	0.0000	47.5169
Total	**0.0279**	**0.1489**	**0.2039**	**9.0000e-004**	**0.0691**	**7.6000e-004**	**0.0698**	**0.0186**	**7.1000e-004**	**0.0193**	**0.0000**	**83.3400**	**83.3400**	**3.9000e-003**	**0.0000**	**83.4374**

3.9 Building Construction - Phase II - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0384	0.3514	0.3682	6.1000e-004		0.0182	0.0182		0.0171	0.0171	0.0000	52.1381	52.1381	0.0125	0.0000	52.4504
Total	**0.0384**	**0.3514**	**0.3682**	**6.1000e-004**		**0.0182**	**0.0182**		**0.0171**	**0.0171**	**0.0000**	**52.1381**	**52.1381**	**0.0125**	**0.0000**	**52.4504**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9200e-003	0.1341	0.0364	3.7000e-004	9.7400e-003	3.5000e-004	0.0101	2.8100e-003	3.3000e-004	3.1400e-003	0.0000	35.8513	35.8513	2.7700e-003	0.0000	35.9205
Worker	0.0239	0.0149	0.1675	5.3000e-004	0.0593	4.1000e-004	0.0597	0.0158	3.8000e-004	0.0161	0.0000	47.4887	47.4887	1.1300e-003	0.0000	47.5169
Total	**0.0279**	**0.1489**	**0.2039**	**9.0000e-004**	**0.0691**	**7.6000e-004**	**0.0698**	**0.0186**	**7.1000e-004**	**0.0193**	**0.0000**	**83.3400**	**83.3400**	**3.9000e-003**	**0.0000**	**83.4374**

3.9 Building Construction - Phase II - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0802	0.7336	0.8284	1.3700e-003		0.0357	0.0357		0.0336	0.0336	0.0000	118.2204	118.2204	0.0281	0.0000	118.9235
Total	**0.0802**	**0.7336**	**0.8284**	**1.3700e-003**		**0.0357**	**0.0357**		**0.0336**	**0.0336**	**0.0000**	**118.2204**	**118.2204**	**0.0281**	**0.0000**	**118.9235**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.6000e-003	0.2311	0.0747	8.1000e-004	0.0221	3.0000e-004	0.0224	6.3700e-003	2.9000e-004	6.6500e-003	0.0000	79.4763	79.4763	5.6000e-003	0.0000	79.6164
Worker	0.0511	0.0304	0.3502	1.1400e-003	0.1345	9.0000e-004	0.1354	0.0357	8.3000e-004	0.0366	0.0000	103.5191	103.5191	2.3000e-003	0.0000	103.5766
Total	**0.0577**	**0.2615**	**0.4250**	**1.9500e-003**	**0.1565**	**1.2000e-003**	**0.1577**	**0.0421**	**1.1200e-003**	**0.0432**	**0.0000**	**182.9953**	**182.9953**	**7.9000e-003**	**0.0000**	**183.1930**

3.9 Building Construction - Phase II - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0802	0.7336	0.8284	1.3700e-003		0.0357	0.0357		0.0336	0.0336	0.0000	118.2203	118.2203	0.0281	0.0000	118.9234
Total	**0.0802**	**0.7336**	**0.8284**	**1.3700e-003**		**0.0357**	**0.0357**		**0.0336**	**0.0336**	**0.0000**	**118.2203**	**118.2203**	**0.0281**	**0.0000**	**118.9234**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.6000e-003	0.2311	0.0747	8.1000e-004	0.0221	3.0000e-004	0.0224	6.3700e-003	2.9000e-004	6.6500e-003	0.0000	79.4763	79.4763	5.6000e-003	0.0000	79.6164
Worker	0.0511	0.0304	0.3502	1.1400e-003	0.1345	9.0000e-004	0.1354	0.0357	8.3000e-004	0.0366	0.0000	103.5191	103.5191	2.3000e-003	0.0000	103.5766
Total	**0.0577**	**0.2615**	**0.4250**	**1.9500e-003**	**0.1565**	**1.2000e-003**	**0.1577**	**0.0421**	**1.1200e-003**	**0.0432**	**0.0000**	**182.9953**	**182.9953**	**7.9000e-003**	**0.0000**	**183.1930**

3.10 Paving - Phase II - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0181	0.1784	0.2552	4.0000e-004		8.9300e-003	8.9300e-003		8.2100e-003	8.2100e-003	0.0000	35.0470	35.0470	0.0113	0.0000	35.3304
Paving	8.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0261**	**0.1784**	**0.2552**	**4.0000e-004**		**8.9300e-003**	**8.9300e-003**		**8.2100e-003**	**8.2100e-003**	**0.0000**	**35.0470**	**35.0470**	**0.0113**	**0.0000**	**35.3304**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	4.8000e-004	5.5100e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.6294	1.6294	4.0000e-005	0.0000	1.6303
Total	**8.0000e-004**	**4.8000e-004**	**5.5100e-003**	**2.0000e-005**	**2.1200e-003**	**1.0000e-005**	**2.1300e-003**	**5.6000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.6294**	**1.6294**	**4.0000e-005**	**0.0000**	**1.6303**

3.10 Paving - Phase II - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0181	0.1784	0.2552	4.0000e-004		8.9300e-003	8.9300e-003		8.2100e-003	8.2100e-003	0.0000	35.0470	35.0470	0.0113	0.0000	35.3304
Paving	8.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0261**	**0.1784**	**0.2552**	**4.0000e-004**		**8.9300e-003**	**8.9300e-003**		**8.2100e-003**	**8.2100e-003**	**0.0000**	**35.0470**	**35.0470**	**0.0113**	**0.0000**	**35.3304**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	4.8000e-004	5.5100e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.6294	1.6294	4.0000e-005	0.0000	1.6303
Total	**8.0000e-004**	**4.8000e-004**	**5.5100e-003**	**2.0000e-005**	**2.1200e-003**	**1.0000e-005**	**2.1300e-003**	**5.6000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.6294**	**1.6294**	**4.0000e-005**	**0.0000**	**1.6303**

3.11 Architectural Coating - Phase II - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3500e-003	0.0228	0.0317	5.0000e-005		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	4.4682	4.4682	2.7000e-004	0.0000	4.4749
Total	**1.3009**	**0.0228**	**0.0317**	**5.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**4.4682**	**4.4682**	**2.7000e-004**	**0.0000**	**4.4749**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4900e-003	2.0800e-003	0.0239	8.0000e-005	9.1700e-003	6.0000e-005	9.2300e-003	2.4400e-003	6.0000e-005	2.4900e-003	0.0000	7.0608	7.0608	1.6000e-004	0.0000	7.0647
Total	**3.4900e-003**	**2.0800e-003**	**0.0239**	**8.0000e-005**	**9.1700e-003**	**6.0000e-005**	**9.2300e-003**	**2.4400e-003**	**6.0000e-005**	**2.4900e-003**	**0.0000**	**7.0608**	**7.0608**	**1.6000e-004**	**0.0000**	**7.0647**

3.11 Architectural Coating - Phase II - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3500e-003	0.0228	0.0317	5.0000e-005		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	4.4682	4.4682	2.7000e-004	0.0000	4.4749
Total	**1.3009**	**0.0228**	**0.0317**	**5.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**4.4682**	**4.4682**	**2.7000e-004**	**0.0000**	**4.4749**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4900e-003	2.0800e-003	0.0239	8.0000e-005	9.1700e-003	6.0000e-005	9.2300e-003	2.4400e-003	6.0000e-005	2.4900e-003	0.0000	7.0608	7.0608	1.6000e-004	0.0000	7.0647
Total	**3.4900e-003**	**2.0800e-003**	**0.0239**	**8.0000e-005**	**9.1700e-003**	**6.0000e-005**	**9.2300e-003**	**2.4400e-003**	**6.0000e-005**	**2.4900e-003**	**0.0000**	**7.0608**	**7.0608**	**1.6000e-004**	**0.0000**	**7.0647**

3.12 Site Preparation - Phase III - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7212
Total	**0.0266**	**0.2752**	**0.1824**	**3.8000e-004**	**0.1807**	**0.0127**	**0.1933**	**0.0993**	**0.0117**	**0.1110**	**0.0000**	**33.4507**	**33.4507**	**0.0108**	**0.0000**	**33.7212**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	3.3000e-004	3.7800e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1173	1.1173	2.0000e-005	0.0000	1.1179
Total	**5.5000e-004**	**3.3000e-004**	**3.7800e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.9000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1173**	**1.1173**	**2.0000e-005**	**0.0000**	**1.1179**

3.12 Site Preparation - Phase III - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0813	0.0000	0.0813	0.0447	0.0000	0.0447	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2752	0.1824	3.8000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	33.4507	33.4507	0.0108	0.0000	33.7211
Total	**0.0266**	**0.2752**	**0.1824**	**3.8000e-004**	**0.0813**	**0.0127**	**0.0940**	**0.0447**	**0.0117**	**0.0563**	**0.0000**	**33.4507**	**33.4507**	**0.0108**	**0.0000**	**33.7211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	3.3000e-004	3.7800e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1173	1.1173	2.0000e-005	0.0000	1.1179
Total	**5.5000e-004**	**3.3000e-004**	**3.7800e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.9000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1173**	**1.1173**	**2.0000e-005**	**0.0000**	**1.1179**

3.13 Grading - Phase III - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1959	0.0000	0.1959	0.0810	0.0000	0.0810	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7042	122.7042	0.0397	0.0000	123.6964
Total	**0.0747**	**0.7766**	**0.6312**	**1.4000e-003**	**0.1959**	**0.0321**	**0.2280**	**0.0810**	**0.0295**	**0.1105**	**0.0000**	**122.7042**	**122.7042**	**0.0397**	**0.0000**	**123.6964**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0700e-003	0.1047	0.0388	4.9000e-004	0.0120	2.1000e-004	0.0122	3.2900e-003	2.1000e-004	3.5000e-003	0.0000	49.3025	49.3025	4.5500e-003	0.0000	49.4163
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	8.2000e-004	9.4500e-003	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.9000e-004	0.0000	2.7933	2.7933	6.0000e-005	0.0000	2.7948
Total	**4.4500e-003**	**0.1055**	**0.0482**	**5.2000e-004**	**0.0156**	**2.3000e-004**	**0.0159**	**4.2500e-003**	**2.3000e-004**	**4.4900e-003**	**0.0000**	**52.0958**	**52.0958**	**4.6100e-003**	**0.0000**	**52.2111**

3.13 Grading - Phase III - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0882	0.0000	0.0882	0.0365	0.0000	0.0365	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.7766	0.6312	1.4000e-003		0.0321	0.0321		0.0295	0.0295	0.0000	122.7041	122.7041	0.0397	0.0000	123.6962
Total	**0.0747**	**0.7766**	**0.6312**	**1.4000e-003**	**0.0882**	**0.0321**	**0.1202**	**0.0365**	**0.0295**	**0.0660**	**0.0000**	**122.7041**	**122.7041**	**0.0397**	**0.0000**	**123.6962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0700e-003	0.1047	0.0388	4.9000e-004	0.0120	2.1000e-004	0.0122	3.2900e-003	2.1000e-004	3.5000e-003	0.0000	49.3025	49.3025	4.5500e-003	0.0000	49.4163
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	8.2000e-004	9.4500e-003	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.9000e-004	0.0000	2.7933	2.7933	6.0000e-005	0.0000	2.7948
Total	**4.4500e-003**	**0.1055**	**0.0482**	**5.2000e-004**	**0.0156**	**2.3000e-004**	**0.0159**	**4.2500e-003**	**2.3000e-004**	**4.4900e-003**	**0.0000**	**52.0958**	**52.0958**	**4.6100e-003**	**0.0000**	**52.2111**

3.14 Building Construction - Phase III - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0181	0.1654	0.1868	3.1000e-004		8.0500e-003	8.0500e-003		7.5700e-003	7.5700e-003	0.0000	26.6576	26.6576	6.3400e-003	0.0000	26.8161
Total	**0.0181**	**0.1654**	**0.1868**	**3.1000e-004**		**8.0500e-003**	**8.0500e-003**		**7.5700e-003**	**7.5700e-003**	**0.0000**	**26.6576**	**26.6576**	**6.3400e-003**	**0.0000**	**26.8161**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4900e-003	0.0521	0.0169	1.8000e-004	4.9800e-003	7.0000e-005	5.0400e-003	1.4400e-003	6.0000e-005	1.5000e-003	0.0000	17.9211	17.9211	1.2600e-003	0.0000	17.9527
Worker	0.0115	6.8600e-003	0.0790	2.6000e-004	0.0303	2.0000e-004	0.0305	8.0500e-003	1.9000e-004	8.2400e-003	0.0000	23.3425	23.3425	5.2000e-004	0.0000	23.3555
Total	**0.0130**	**0.0590**	**0.0958**	**4.4000e-004**	**0.0353**	**2.7000e-004**	**0.0356**	**9.4900e-003**	**2.5000e-004**	**9.7400e-003**	**0.0000**	**41.2637**	**41.2637**	**1.7800e-003**	**0.0000**	**41.3082**

3.14 Building Construction - Phase III - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0181	0.1654	0.1868	3.1000e-004		8.0500e-003	8.0500e-003		7.5700e-003	7.5700e-003	0.0000	26.6575	26.6575	6.3400e-003	0.0000	26.8161
Total	**0.0181**	**0.1654**	**0.1868**	**3.1000e-004**		**8.0500e-003**	**8.0500e-003**		**7.5700e-003**	**7.5700e-003**	**0.0000**	**26.6575**	**26.6575**	**6.3400e-003**	**0.0000**	**26.8161**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4900e-003	0.0521	0.0169	1.8000e-004	4.9800e-003	7.0000e-005	5.0400e-003	1.4400e-003	6.0000e-005	1.5000e-003	0.0000	17.9211	17.9211	1.2600e-003	0.0000	17.9527
Worker	0.0115	6.8600e-003	0.0790	2.6000e-004	0.0303	2.0000e-004	0.0305	8.0500e-003	1.9000e-004	8.2400e-003	0.0000	23.3425	23.3425	5.2000e-004	0.0000	23.3555
Total	**0.0130**	**0.0590**	**0.0958**	**4.4000e-004**	**0.0353**	**2.7000e-004**	**0.0356**	**9.4900e-003**	**2.5000e-004**	**9.7400e-003**	**0.0000**	**41.2637**	**41.2637**	**1.7800e-003**	**0.0000**	**41.3082**

3.14 Building Construction - Phase III - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0912	0.8335	1.0023	1.6700e-003		0.0380	0.0380		0.0358	0.0358	0.0000	143.7464	143.7464	0.0340	0.0000	144.5962
Total	**0.0912**	**0.8335**	**1.0023**	**1.6700e-003**		**0.0380**	**0.0380**		**0.0358**	**0.0358**	**0.0000**	**143.7464**	**143.7464**	**0.0340**	**0.0000**	**144.5962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.7600e-003	0.2777	0.0885	9.8000e-004	0.0268	3.6000e-004	0.0272	7.7400e-003	3.4000e-004	8.0800e-003	0.0000	96.1437	96.1437	6.6900e-003	0.0000	96.3110
Worker	0.0588	0.0336	0.3959	1.3400e-003	0.1635	1.0800e-003	0.1646	0.0434	1.0000e-003	0.0444	0.0000	121.3938	121.3938	2.5500e-003	0.0000	121.4575
Total	**0.0666**	**0.3114**	**0.4844**	**2.3200e-003**	**0.1903**	**1.4400e-003**	**0.1918**	**0.0512**	**1.3400e-003**	**0.0525**	**0.0000**	**217.5374**	**217.5374**	**9.2400e-003**	**0.0000**	**217.7685**

3.14 Building Construction - Phase III - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0912	0.8335	1.0023	1.6700e-003		0.0380	0.0380		0.0358	0.0358	0.0000	143.7463	143.7463	0.0340	0.0000	144.5961
Total	**0.0912**	**0.8335**	**1.0023**	**1.6700e-003**		**0.0380**	**0.0380**		**0.0358**	**0.0358**	**0.0000**	**143.7463**	**143.7463**	**0.0340**	**0.0000**	**144.5961**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.7600e-003	0.2777	0.0885	9.8000e-004	0.0268	3.6000e-004	0.0272	7.7400e-003	3.4000e-004	8.0800e-003	0.0000	96.1437	96.1437	6.6900e-003	0.0000	96.3110
Worker	0.0588	0.0336	0.3959	1.3400e-003	0.1635	1.0800e-003	0.1646	0.0434	1.0000e-003	0.0444	0.0000	121.3938	121.3938	2.5500e-003	0.0000	121.4575
Total	**0.0666**	**0.3114**	**0.4844**	**2.3200e-003**	**0.1903**	**1.4400e-003**	**0.1918**	**0.0512**	**1.3400e-003**	**0.0525**	**0.0000**	**217.5374**	**217.5374**	**9.2400e-003**	**0.0000**	**217.7685**

3.15 Paving - Phase III - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.1667	0.2560	4.0000e-004		8.2000e-003	8.2000e-003		7.5400e-003	7.5400e-003	0.0000	35.0464	35.0464	0.0113	0.0000	35.3298
Paving	8.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0254**	**0.1667**	**0.2560**	**4.0000e-004**		**8.2000e-003**	**8.2000e-003**		**7.5400e-003**	**7.5400e-003**	**0.0000**	**35.0464**	**35.0464**	**0.0113**	**0.0000**	**35.3298**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	4.4000e-004	5.1300e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.5718	1.5718	3.0000e-005	0.0000	1.5726
Total	**7.6000e-004**	**4.4000e-004**	**5.1300e-003**	**2.0000e-005**	**2.1200e-003**	**1.0000e-005**	**2.1300e-003**	**5.6000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.5718**	**1.5718**	**3.0000e-005**	**0.0000**	**1.5726**

3.15 Paving - Phase III - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.1667	0.2560	4.0000e-004		8.2000e-003	8.2000e-003		7.5400e-003	7.5400e-003	0.0000	35.0464	35.0464	0.0113	0.0000	35.3298
Paving	8.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0254**	**0.1667**	**0.2560**	**4.0000e-004**		**8.2000e-003**	**8.2000e-003**		**7.5400e-003**	**7.5400e-003**	**0.0000**	**35.0464**	**35.0464**	**0.0113**	**0.0000**	**35.3298**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	4.4000e-004	5.1300e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.5718	1.5718	3.0000e-005	0.0000	1.5726
Total	**7.6000e-004**	**4.4000e-004**	**5.1300e-003**	**2.0000e-005**	**2.1200e-003**	**1.0000e-005**	**2.1300e-003**	**5.6000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.5718**	**1.5718**	**3.0000e-005**	**0.0000**	**1.5726**

3.16 Architectural Coating - Phase III - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**1.3007**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-003	1.8900e-003	0.0222	8.0000e-005	9.1700e-003	6.0000e-005	9.2300e-003	2.4400e-003	6.0000e-005	2.4900e-003	0.0000	6.8110	6.8110	1.4000e-004	0.0000	6.8145
Total	**3.3000e-003**	**1.8900e-003**	**0.0222**	**8.0000e-005**	**9.1700e-003**	**6.0000e-005**	**9.2300e-003**	**2.4400e-003**	**6.0000e-005**	**2.4900e-003**	**0.0000**	**6.8110**	**6.8110**	**1.4000e-004**	**0.0000**	**6.8145**

3.16 Architectural Coating - Phase III - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**1.3007**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-003	1.8900e-003	0.0222	8.0000e-005	9.1700e-003	6.0000e-005	9.2300e-003	2.4400e-003	6.0000e-005	2.4900e-003	0.0000	6.8110	6.8110	1.4000e-004	0.0000	6.8145
Total	**3.3000e-003**	**1.8900e-003**	**0.0222**	**8.0000e-005**	**9.1700e-003**	**6.0000e-005**	**9.2300e-003**	**2.4400e-003**	**6.0000e-005**	**2.4900e-003**	**0.0000**	**6.8110**	**6.8110**	**1.4000e-004**	**0.0000**	**6.8145**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Integrate Below Market Rate Housing

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5482	2.0991	6.8919	0.0262	2.6453	0.0201	2.6654	0.7075	0.0186	0.7261	0.0000	2,415.1006	2,415.1006	0.0915	0.0000	2,417.3887
Unmitigated	0.5558	2.1435	7.1117	0.0273	2.7555	0.0208	2.7763	0.7369	0.0193	0.7562	0.0000	2,510.1964	2,510.1964	0.0946	0.0000	2,512.5604

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	2,635.20	2,635.20	2635.20	7,281,249	6,989,999
Parking Lot	0.00	0.00	0.00		
User Defined Industrial	2.00	2.00	2.00	4,975	4,776
Total	2,637.20	2,637.20	2,637.20	7,286,223	6,994,775

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	32.90	18.00	49.10	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
User Defined Industrial	9.50	7.30	7.30	18.00	32.90	49.10	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.597457	0.040465	0.187858	0.105115	0.017041	0.006067	0.020072	0.018206	0.001182	0.001040	0.003816	0.000389	0.001293
Parking Lot	0.597457	0.040465	0.187858	0.105115	0.017041	0.006067	0.020072	0.018206	0.001182	0.001040	0.003816	0.000389	0.001293
User Defined Industrial	0.597457	0.040465	0.187858	0.105115	0.017041	0.006067	0.020072	0.018206	0.001182	0.001040	0.003816	0.000389	0.001293

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	358.9908	358.9908	0.0149	3.3800e-003	360.3713
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	358.9908	358.9908	0.0149	3.3800e-003	360.3713
NaturalGas Mitigated	0.0248	0.2117	0.0901	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	245.1241	245.1241	4.7000e-003	4.4900e-003	246.5808
NaturalGas Unmitigated	0.0248	0.2117	0.0901	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	245.1241	245.1241	4.7000e-003	4.4900e-003	246.5808

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	4.59345e+006	0.0248	0.2117	0.0901	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	245.1241	245.1241	4.7000e-003	4.4900e-003	246.5808
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0248**	**0.2117**	**0.0901**	**1.3500e-003**		**0.0171**	**0.0171**		**0.0171**	**0.0171**	**0.0000**	**245.1241**	**245.1241**	**4.7000e-003**	**4.4900e-003**	**246.5808**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	4.59345e+006	0.0248	0.2117	0.0901	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	245.1241	245.1241	4.7000e-003	4.4900e-003	246.5808
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0248**	**0.2117**	**0.0901**	**1.3500e-003**		**0.0171**	**0.0171**		**0.0171**	**0.0171**	**0.0000**	**245.1241**	**245.1241**	**4.7000e-003**	**4.4900e-003**	**246.5808**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.43392e+006	345.0330	0.0143	3.2500e-003	346.3599
Parking Lot	58007.2	13.9578	5.8000e-004	1.3000e-004	14.0115
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**358.9908**	**0.0149**	**3.3800e-003**	**360.3713**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.43392e+006	345.0330	0.0143	3.2500e-003	346.3599
Parking Lot	58007.2	13.9578	5.8000e-004	1.3000e-004	14.0115
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**358.9908**	**0.0149**	**3.3800e-003**	**360.3713**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1407	0.0308	2.6720	1.4000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	4.3781	4.3781	4.1900e-003	0.0000	4.4828
Unmitigated	1.1407	0.0308	2.6720	1.4000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	4.3781	4.3781	4.1900e-003	0.0000	4.4828

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1298					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9306					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0803	0.0308	2.6720	1.4000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	4.3781	4.3781	4.1900e-003	0.0000	4.4828
Total	**1.1407**	**0.0308**	**2.6720**	**1.4000e-004**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**4.3781**	**4.3781**	**4.1900e-003**	**0.0000**	**4.4828**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1298					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9306					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0803	0.0308	2.6720	1.4000e-004		0.0148	0.0148		0.0148	0.0148	0.0000	4.3781	4.3781	4.1900e-003	0.0000	4.4828
Total	**1.1407**	**0.0308**	**2.6720**	**1.4000e-004**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**4.3781**	**4.3781**	**4.1900e-003**	**0.0000**	**4.4828**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	104.2749	0.6155	0.0154	124.2412
Unmitigated	120.4610	0.7690	0.0191	145.3809

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	23.4554 / 14.7871	120.4610	0.7690	0.0191	145.3809
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**120.4610**	**0.7690**	**0.0191**	**145.3809**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	18.7644 / 14.7871	104.2749	0.6155	0.0154	124.2412
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**104.2749**	**0.6155**	**0.0154**	**124.2412**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	33.6153	1.9866	0.0000	83.2805
Unmitigated	33.6153	1.9866	0.0000	83.2805

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	165.6	33.6153	1.9866	0.0000	83.2805
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**33.6153**	**1.9866**	**0.0000**	**83.2805**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	165.6	33.6153	1.9866	0.0000	83.2805
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**33.6153**	**1.9866**	**0.0000**	**83.2805**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	26	200	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	4.2700e-003	0.0119	0.0109	2.0000e-005		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	1.9802	1.9802	2.8000e-004	0.0000	1.9871
Total	**4.2700e-003**	**0.0119**	**0.0109**	**2.0000e-005**		**6.3000e-004**	**6.3000e-004**		**6.3000e-004**	**6.3000e-004**	**0.0000**	**1.9802**	**1.9802**	**2.8000e-004**	**0.0000**	**1.9871**

11.0 Vegetation

Appendix D

Initial Study Biological Assessment (ISBA)

Initial Study Biological Assessment

Original ISBA Report Date: September 9, 2020

Case Number: PL19-0046

Permit Type(s): Planned Development Permit (PDP); Conditional Use Permit (CUP); and Tentative Parcel Map (TPM)

Applicant: Somis Ranch Partners, LLC

Case Planner: Justin Bertoline

Total Parcel(s): 36.34 acres

Assessor Parcel Number(s): 156-018-048 (2789 Somis Road)

Development Proposal Description: The applicant is requesting a Tentative Parcel Map (TPM) for a four-lot subdivision of an existing legal lot, a Conditional Use Permit (CUP) to authorize the construction of a community wastewater treatment facility (CWWTF), and a Planned Development (PD) Permit to authorize the construction of a 360-unit farmworker housing complex (Somis Ranch Farmworker Housing Complex Project [project]). The applicant proposes subdivision of the property into four parcels, three of which (approximately 18.43 acres) would be developed for farmworker housing and one (approximately 18.43 acres) would remain in agricultural production. The proposed farmworker housing complex would consist of 360 dwelling units, 654 parking spaces, and amenities such as community center room(s), playing fields, playgrounds, and basketball courts. The City of Camarillo's North Pleasant Valley Groundwater Treatment Facility and Desalter is sited on 4.64 acres to the southwest of the project parcel. As part of the Groundwater Treatment Facility and Desalter, the City will construct a new access road/entrance to the property and improve an existing entrance from Somis Road. There is a shared access agreement that would allow the proposed farmworker housing complex to utilize the access road and entrances. The project would be developed in three phases. Phase 1 would consist of 100 units and the CWWTF, Phase 2 would consist of 100 units and an easement to the CWWTF, and Phase 3 would consist of 160 units and an easement to the CWWTF.

Prepared for Ventura County Planning Division by:

As a Qualified Biologist, approved by the Ventura County Planning Division, I hereby certify that this Initial Study Biological Assessment was prepared according to the Planning Division's requirements and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge.

Qualified Biologist (signature): 		Date: 9/9/2020
Name (printed): Steven J. Hongola	Title: Principal Biologist	Company: Rincon Consultants, Inc.
Phone: 805.644.4455 ext. 41	email: shongola@rinconconsultants.com	
Role: Report review and technical assistance.		
Other Biologist (signature): 		Date: 9/9/2020
Name (printed): Nathan Marcy	Title: Associate Biologist	Company: Rincon Consultants, Inc.
Phone: 727-403-7340	email: nmarcy@rinconconsultants.com	
Role: Report preparation.		
Other Biologist (signature): 		Date: 9/9/2020
Name (printed): Lindsay Griffin	Title: Senior Biologist/Project Manager	Company: Rincon Consultants, Inc.
Phone: 805-644-4455 ext. 31	email: lgriffin@rinconconsultants.com	
Role: Report review and technical assistance.		

Initial Study Checklist

This Biological Assessment DID provide adequate information to make recommended CEQA findings regarding potentially significant impacts.

	Project Impact Degree of Effect				Cumulative Impact Degree of Effect			
	N	LS	PS-M	PS	N	LS	PS-M	PS
Biological Resources								
Species			•				•	
Ecological Communities			•			•		
Habitat Connectivity		•				•		

N: No impact
LS: Less than significant impact
PS-M: Potentially significant unless mitigation incorporated
PS: Potentially significant

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Appendix One Summary of Biological Resource Regulations

Appendix Two Observed Species Table

Attachments

Attachment A Species Documented by CNDDB within 10 Miles of the Proposed Project

Summary

The proposed project consists of a 360-unit farmworker housing complex (along with amenities such as community center(s), playing fields, playgrounds, and basketball courts) and a community wastewater treatment facility (CWWTF). The 36.34-acre project site is located in an Agricultural Exclusive (AE) Zone on Somis Road in unincorporated Ventura County adjacent to the northern limits of the City of Camarillo. It is outside of the City's sphere of influence and City Urban Restriction Boundary, and outside of the Coastal Zone or any Scenic Resource Protection, Mineral Resource Protection, Scenic Highway Protection, Habitat Connectivity or Community Business District Overlay. A qualified Rincon biologist conducted a survey of the project site and 100-foot buffer (survey area) on May 4, 2020 and a return visit on August 28, 2020 to further evaluate waters and wetlands.

No plant species that are federally or state listed as endangered or threatened, or that have a California Rare Plant Rank (CRPR) of 1 or 2, were observed during the surveys or are expected to occur in the survey area. During the surveys, 11 trees protected under the Ventura County Non-Coastal Zoning Ordinance were observed in the survey area. One California sycamore (*Platanus racemosa*) was found in the survey buffer outside the project site, and five Peruvian pepper trees (*Schinus molle*), one Brazilian pepper tree (*Schinus terebinthifolius*), one English walnut (*Juglans regia*), and three blue gums (*Eucalyptus globulus*) were found in the project site but outside the construction footprint.

No special-status wildlife species were observed during the survey and none are expected to occur in the project site due to lack of suitable habitat. Agricultural activity and roads result in frequent human disturbance throughout the survey area and vicinity. Any species that occur in the area are likely adapted to a high level of noise, foot traffic, moderate vehicle traffic, and other forms of human disturbance. The trees and ornamental vegetation in the survey area provide marginal habitat for nesting birds protected by the California Fish and Game Code and the federal Migratory Bird Treaty Act. The surveys were completed during nesting bird season (May 4 and August 28) but no nesting birds were observed.

One sensitive plant community (*Equisetum hymale* Herbaceous Alliance; state rarity ranking of 3) was observed in the survey area. The. A channelized intermittent stream (Grove's Place Drain, W1) that would likely be subject to United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB) jurisdiction was observed in the survey area and within the construction footprint. No regional wildlife corridor or linkages are located in the survey area, but local wildlife movement may occur in the channel of Grove's Place Drain (W1). Wildlife movement elsewhere in the survey area is expected to be minimal due to the active agricultural land use in the survey area and agricultural and commercial development in adjacent properties.

The following mitigation measure (MM) is recommended to reduce impacts to biological resources:

- **MM-BIO-1**: Conduct preconstruction nesting bird survey if construction activities commence during nesting season (February 1 to August 31) and avoid active nests.
- **MM-BIO-2:** Preparation and Planning Division approval of a Mitigation Plan to compensate for the loss of waters and wetlands regulated by the USACE, CDFW, and RWQCB.

1 Construction Footprint Description

Construction Footprint Definition (per the Ventura County Planning Division): The construction footprint includes the proposed maximum limits of temporary or permanent direct land or vegetation disturbance for a project including such things as the building pad(s), roads/road improvements, grading, septic systems, wells, drainage improvements, fire hazard brush clearance area(s), tennis courts, pools/spas, landscaping, storage/stockpile areas, construction staging areas, fire department turnarounds, utility trenching and other grading areas. The construction footprint on some types of projects, such as mining, oil and gas exploration or agricultural operations, may be quite different than the above.

Development Proposal Description

The applicant is requesting a Tentative Parcel Map (TPM) for a four-lot subdivision of an existing legal lot, a Conditional Use Permit (CUP) to authorize the construction of a community wastewater treatment facility (CWWTF), and a Planned Development (PD) Permit to authorize the construction of a 360-unit farmworker housing complex (Somis Ranch Farmworker Housing Complex Project [project]).

The property is located on Somis Road in unincorporated Ventura County adjacent to the northern limits of the City of Camarillo, outside of the City's sphere of influence and City Urban Restriction Boundary. The property is predominantly in agricultural production and includes two existing residences and ancillary agricultural buildings on Bell Ranch Road. These structures are outside the construction footprint and will be retained.

An area of approximately 4.64 acres near the southwest corner of the property was approved for annexation by the City of Camarillo in 2018 and will be the site of the City's North Pleasant Valley Groundwater Treatment Facility and Desalter. As part of that project, the City will construct a new access road/entrance to the property and improve an existing entrance from Somis Road (State Route [SR] 34). A shared access agreement would allow the proposed farmworker housing complex to utilize the access road and entrances. The access roads are not included in the application for this project and are not analyzed in this Initial Study Biological Assessment (ISBA).

The project site is the approximately 36.33-acre portion of the property that excludes the area annexed by the City, and access road improvements to Somis Road to the east of the project. The applicant is requesting subdivision of the project site into four parcels, three of which (totaling approximately 18.43 acres) would be developed for farmworker housing. The fourth parcel (approximately 17.90 acres) would include the existing structures and would remain in agricultural production. The proposed farmworker housing complex would consist of 30 apartment buildings totaling 360 dwelling units. Most of the apartment buildings would be three stories, with a maximum building height of 35 feet above ground level. Other planned developments include a community center building, 654 parking spaces, playing fields, playgrounds, basketball courts, and landscaping vegetation. The project would be developed in three phases. Phase 1 would include 100 housing units and the CWWTF, Phase 2 would include an additional 100 units, and Phase 3 would include the final 160 units.

The CWWTF would be developed in an area of approximately 0.15 acre in the northwest corner of the project site. It is designed to treat all wastewater (sewage) generated by the housing complex to tertiary treatment standards. The CWWTF would include a conventional membrane bioreactor

package, two approximately 25,000-gallon equalization basins, two sludge storage tanks, an air scrubber, a lift station, a maintenance storage shed, and yard piping. The perimeter of the CWWTF site would be fenced and screened by landscaping. The CWWTF would be phased for expansion to accommodate the planned three-phase construction and occupancy of the development. The recycled water is proposed for use as off-site agricultural irrigation, and any water that cannot be used for agriculture would be dispersed through a series of underground seepage pits.

Construction Footprint Size

The construction footprint is approximately 19.05 acres and includes of all areas in which construction activities related to the development of the residential units and associated amenities and the CWWTF would occur. The proposed parcel that contains the existing structures and would remain in agricultural production is excluded from the construction footprint as no construction activities are proposed there.

Table 1 Construction Footprint

Acres	Feature
3.53 (19%)	Buildings
5.26 (29%)	Parking
0.56 (3%)	Hardscaping
9.08 (49%)	Landscaping
18.43 (100%)	**Total Approximate Construction Footprint**

Project Design for Impact Avoidance or Minimization

The location of the construction footprint within the project site was selected in part to avoid impacts to a potentially jurisdictional drainage on the eastern boundary of the project site (Grove's Place Drain, W1), and to avoid the removal of protected trees. The plants identified in the project landscaping plan were chosen for drought tolerance and to avoid species identified as invasive by California Invasive Plant Council (Cal-IPC).

Coastal Zone/Overlay Zones

The project site is not located in the Coastal Zone or any Scenic Resource Protection, Mineral Resource Protection, Scenic Highway Protection or Community Business District Overlay.

Zoning

The project site is zoned Agricultural Exclusive, 40-acre minimum size (AE-40 ac). Section 8103-2.7 of the Ventura County Non-Coastal Zoning Ordinance states that AE zoned parcels less than the prescribed minimum lot area shall be allowed Farmworker Housing Complexes, where such under-sized parcels are located adjacent to or within a City Sphere of Influence and the remaining non-farmworker housing parcel at minimum 10 acres. The proposed project is consistent with these standards, with approximately 18.43 acres repurposed for farmworker housing and 17.90 acres continuing to be used for agricultural purposes.

Elevation

The project site is between 213 and 231 feet above mean sea level.

2 Survey Information

2.1 Survey Purpose

Discretionary actions undertaken by public agencies are required to demonstrate compliance with the California Environmental Quality Act (CEQA). The purpose of this ISBA is to gather enough information about the biological resources associated with the proposed project, and their potential to be impacted by the project, to make a CEQA Initial Study significance finding for biological resources. In general, ISBAs are intended to:

- Provide an inventory of the biological resources on a project site and the values of those resources.
- Determine if a proposed project has the potential to impact any significant biological resources.
- Recommend project redesign to avoid, minimize or reduce impacts to significant biological resources.
- Recommend additional studies necessary to adequately assess potential impacts and/or to develop adequate mitigation measures.
- Develop mitigation measures, when necessary, in cases where adequate information is available.

2.2 Survey Area Description

Survey Area Definition (per the Ventura County Planning Division): The physical area a biologist evaluates as part of a biological assessment. This includes all areas that could potentially be subject to direct or indirect impacts from the project, including, but not limited to: the construction footprint; areas that would be subject to noise, light, dust or runoff generated by the project; any required buffer areas (e.g., buffers surrounding wetland habitat). The construction footprint plus a 100- to 300-foot buffer—beyond the required fire hazard brush clearance boundary— (or 20-foot from the cut/fill boundary or road fire hazard brush clearance boundary – whichever is greater) is generally the size of a survey area. Required off-site improvements—such as roads or fire hazard brush clearance—are included in the survey area. Survey areas can extend off the project's parcel(s) because indirect impacts may cross property lines. The extent of the survey area shall be determined by the biologist in consultation with the lead agency.

Survey Area

Location

The survey area is located in unincorporated Ventura County adjacent to the northern limits of the City of Camarillo (Figure 1 and Figure 2). The survey area is bordered on the south by SR 34 and entered from the east by Bell Ranch Road. The survey area encompasses the entirety of the project site (approximately 36.33 acres) plus a 100-foot survey buffer.

Figure 1 Project Location

Imagery provided by Esri and its licensors © 2020.

Project Location

N

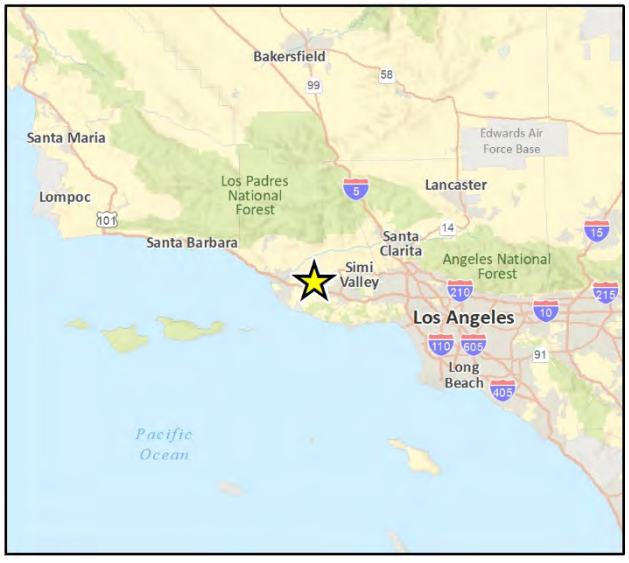
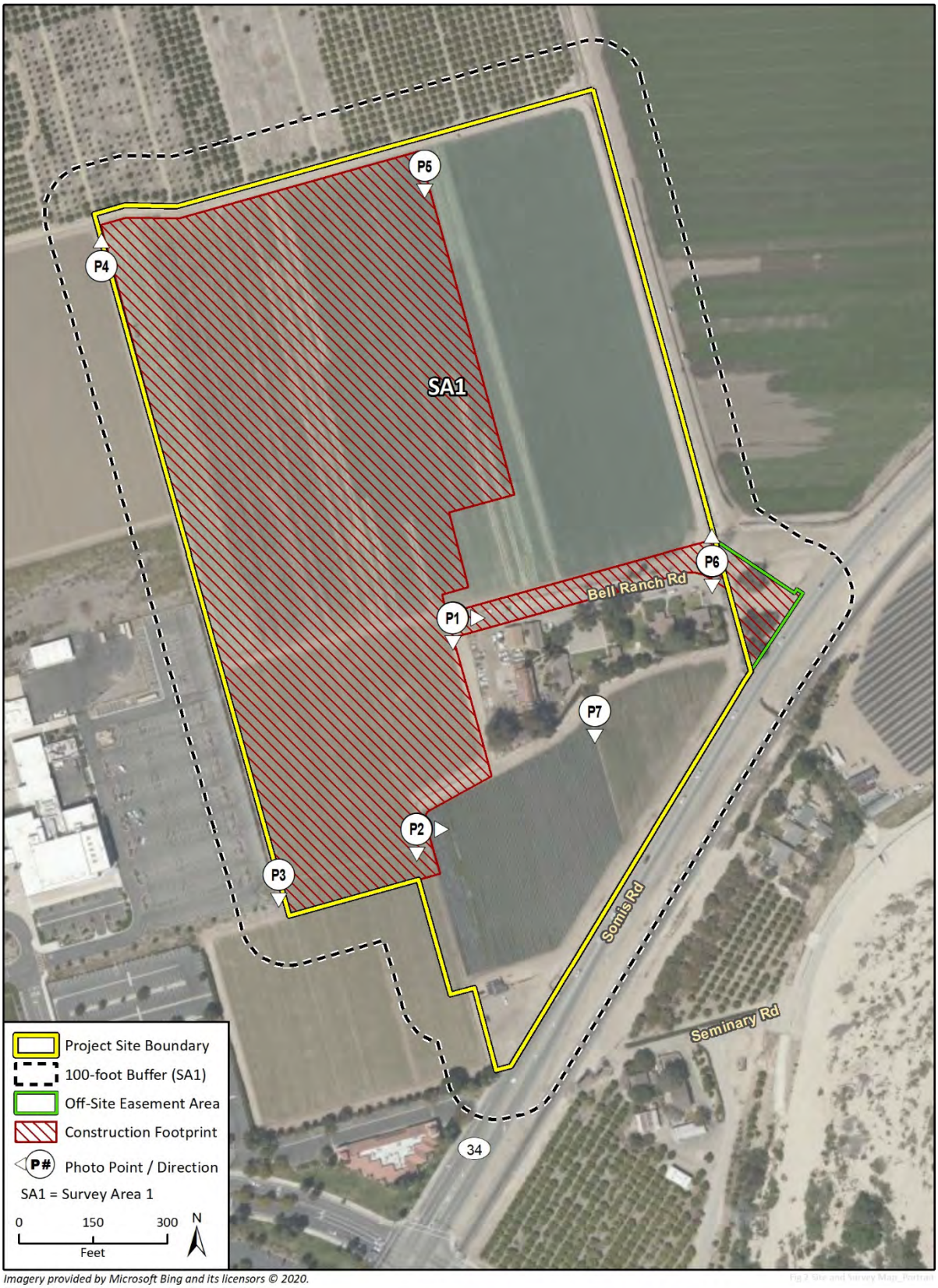


Figure 2 Site and Survey Area Map



Imagery provided by Microsoft Bing and its licensors © 2020.

Survey Area Environmental Setting

The survey area is predominantly in active agricultural production (row crops). Areas of orchard and fallow agricultural fields are also present. An area of approximately 2.6 acres in the southeastern portion of the survey area contains two existing residences, ancillary agricultural buildings, unpaved parking areas, and ornamental vegetation. The survey area includes a network of unpaved agricultural roads. The western survey buffer includes a paved parking lot and ornamental vegetation associated with a high school on an adjacent property. The southern survey buffer includes SR 34 and a railroad. The North Pleasant Valley Groundwater Treatment Facility and Desalter, which at the time of the survey was an active construction site, is partially within the southwestern corner of the survey area.

The land in the survey area is relatively level, ranging from a maximum elevation of approximately 230 feet above mean sea level in the northeast corner to a minimum elevation of approximate 215 feet in the southwest corner. Three soil types are mapped in the survey area: Sorrento silty clay loam, 0 to 2 percent; Pico loam, sandy substratum, 0 to 2 percent slopes; and Mocho loam, 0 to 2 percent slopes. The survey area is in the Calleguas Creek Watershed. A channelized intermittent stream (Grove's Place Drain, W1) containing wetland vegetation is located in the eastern survey buffer.

Surrounding Area Environmental Setting

Properties surrounding the survey area to the north, west, and east are primarily utilized for agriculture, both row crops and orchards. Buildings and paved lots associated with the high school and a church border the survey area on the west side. Arroyo Las Posas, a seasonal stream with associated riparian vegetation, is located approximately 325 feet southeast of the survey area on the opposite side of SR 34.

Cover (Survey Area)

- <1% Native vegetation
  - <1 % Giant scouring rush (*Equisetum hymale* Herbaceous Alliance)
- 77% Non-native vegetation
  - 2% Bermuda grass – Italian wild rye (*Cynodon dactylon – Festuca perennis* Herbaceous Alliance)
  - 1% Wild oat (*Avena fatua* Semi-Natural Herbaceous Stand)
  - 4% Non-Native Ornamental Landscaping
  - 65% Planted agricultural field
  - 5% Cleared land (fallow field)
- 23% Other cover
  - 18% Bare ground
  - 5% Paved

2.3 Methodology

Rincon Consultants Inc. (Rincon) conducted a literature review to determine what special-status biological resources are tracked in the vicinity of the survey area. Topographic maps, aerial photographs, and the United States Fish and Wildlife Service National Wetlands Inventory were also reviewed to assess biological conditions in the survey area and in the immediate vicinity. The review also included the references listed below.

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Survey Details Table

An initial site visit was conducted by Rincon biologist Carolyn Welch, on May 4, 2020, to determine the potential for presence of special-status species and to generally document the extent of biological resources in the survey area (Table 2). The survey area was systematically walked, providing thorough coverage of the entire potential development footprint. The property was photographed, and GPS was available to mark significant findings.

A second site visit was conducted by Rincon biologists Carolyn Welch and Thea Benson on August 28, 2020, with focus on the eastern drainage where road improvements are proposed for access to the main project site. This site visit focused on identification of aquatic resources, including presence of hydrophytic vegetation, hydric soils, and wetland hydrology, presence of an ordinary high-water mark (OHWM), and/or riparian resources. Delineation procedures outlined in the *Wetlands Delineation Manual* (USACE 1987) and the guidance in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a) were used in this analysis. During the survey, Ms. Welch and Ms. Benson noted general site characteristics and documented vegetation and took representative photographs.

Table 2 Survey Date & Details

Survey Key	Survey Date	Survey Area	Survey Type	Time Period	Methods/Constraints	GPS	Surveyor(s)
SD1	5/4/2020	SA1	ISBA	8:00 am–1:00 pm	The majority of the site was accessible on foot. A section of the site was not accessible due to construction activities and was surveyed with binoculars.	Trimble	Carolyn Welch
SD2	8/28/2020	SA1	ISBA	8:00 am-11:00 am	The site was accessible on foot.	Trimble	Thea Benson and Carolyn Welch

ISBA = Initial Study Biological Assessment

3 Biological Inventory

See Appendix A for an overview of the types of biological resources that are protected in Ventura County.

3.1 Ecological Communities: Plant Communities, Physical Features and Wetlands

Plant Communities

Locally important or rare plant communities were found in the survey area.

Three natural communities and five other land cover types were mapped in the survey area (Table 3, Figure 3).

Major Plant Communities Summary

Giant scouring rush (Equisetum hyemale Herbaceous Alliance)

This herbaceous alliance typically occurs in riparian areas, including streambanks, floodplains, edges of levees, seeps, ponds, and riparian forest openings between sea level and to 10,000 feet in elevation. The soils where it occurs are alluvial and may be seasonally or intermittently flooded. The herbaceous canopy cover may be intermittent to continuous, and native giant scouring rush (*Equisetum hyemale*) comprises at least 50 percent relative cover in the herbaceous layer. This vegetation community has a state rarity rank of S3 and is not ranked globally. It is identified by CDFW and Ventura County as a sensitive plant community.

In the survey area, giant scouring rush occurs in two small patches in the channelized ephemeral stream (Grove's Place Drain, W1) near the northeast corner of the project site (Figure 4). In these areas the species forms a closed canopy with no understory. The survey area contains less than 0.1 acre of this land cover type, representing less than one percent of the survey area.

Bermuda grass – Italian wild rye (Cynodon dactylon – Festuca perennis Herbaceous Alliance)

This provisional herbaceous stand occurs in Grove's Place Drain (W1) along the east side of the survey area. Non-native Bermuda grass (*Cynodon dactylon*) and Italian wild rye (*Festuca perennis*) are dominant in the herbaceous layer. Other species observed include native smooth willowherb (*Epilobium ciliatum*) and rescue grass (*Bromus catharticus*) and non-native annual beard grass (*Polypogon monspeliensis*) and castor bean (*Ricinus communis*). This community is not identified in A Manual of California Vegetation (Sawyer et al. 2009) as a defined habitat type. The survey area contains approximately 0.8 acre of this land cover type, representing two percent of the survey area.

Wild oat (Avena fatua Semi-Natural Herbaceous Stand)

This herbaceous stand occurs in a variety of settings, including waste places, rangelands, and openings in woodlands between sea level and 7,000 feet in elevation. The herbaceous canopy cover ranges from open to continuous, and non-native wild oat (*Avena fatua*) comprises at least 50

percent relative cover. This vegetation community is not assigned state or global rarity ranks due to the prevalence of non-native species.

In the survey area, this community occurs near the western boundary of the project site. Wild oat dominates the herbaceous layer. Other non-native herbaceous species are also present, including ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), and bull mallow (*Malva nicaeensis*). The survey area contains approximately 0.4 acre of this land cover type, representing one percent of the survey area.

Other Land Cover Types

Non-Native Ornamental Landscaping

Non-native ornamental landscaping occurs near the center of the survey area in the immediate vicinity of the existing structures and at the southwest corner of the survey area bordering the adjacent high school parking lot. Near the existing structures there is a tree canopy composed of several large ornamental species including the Peruvian pepper tree, Brazilian pepper tree, blue gum, orange tree (*Citrus* sp.), avocado (*Persea americana*), and myoporum (*Myoporum laetum*). The understory is composed primarily of grass lawns, plantain (*Musa* sp.), garden rose (*Rosa* sp.). At the southwest corner, the dominant species is kangaroo vine (*Cissus antarctica*), which is covering a chain link fence. The understory is composed primarily of non-native ruderal species including cheeseweed (*Malva parviflora*), prickly lettuce (*Lactuca serriola*), and bristly ox-tongue (*Helminthotheca echioides*). Two native western redbud (*Cercis occidentalis*) and a California sycamore are also present in this area.

Non-native ornamental landscaping is not identified as a community in A Manual of California Vegetation (Sawyer et al. 2009). The survey area contains approximately 2.0 acres of this land cover type, representing four percent of the survey area.

Planted Agricultural Field

This land is engaged in active agricultural production. The primary crops growing in the survey area at the time of the survey include celery (*Apium graveolens*), cabbage (*Brassica oleracea*), strawberries *(Fragaria ananassa*), and squash (*Cucurbita sp.*). The survey area contains approximately 32.7 acres of this land cover type, representing 65 percent of the survey area.

Cleared Land (Fallow Field)

This land cover type is associated with disturbed areas and characterized by dense growth of non-native herbaceous species. It occurs in parts of the survey area that were recently in active agricultural production but were fallow at the time of the survey. Observed species included common sow thistle (*Sonchus oleraceus*), Shepherd's purse (*Capsella bursa pastoris*), and nettle leaf goosefoot (*Chenopodium murale*). This land cover type is not identified as a community in A Manual of California Vegetation (Sawyer et al. 2009). The survey area contains approximately 2.3 acre of fallow field, representing five percent of the survey area.

Bare Ground

This land cover type in the survey area includes the dirt roads, gravel areas, and the active construction zone for North Pleasant Valley Groundwater Treatment Facility and Desalter. These areas are kept free of vegetation for human use. The survey area contains approximately 9.2 acre of this land cover type, representing 18 percent of the survey area.

Paved

Asphalt-paved land is present in the survey area on SR 34 adjacent to the southern boundary of the project site and in the high school parking lot adjacent to the western boundary. No vegetation is present in these areas. The survey area contains 2.7 acres of paved land, representing five percent of the survey area.

Table 3 Plant Communities

Map Key	VegCAMP Alliance	VegCAMP Association	Misc.	Status	Condition	Acres Total	Acres Impacted*	Comments
PC1	*Equisetum hyemale* Herbaceous Alliance	N/A	–	S3	Intact	0.02	0	Sensitive. In W1 drainage.
PC2	*Cynodon dactylon – Festuca perennis* Herbaceous Alliance	N/A	–	N/A	Intact	0.83	0.07	In W1 and W3 drainage.
PC3	*Avena fatua* Semi-Natural Herbaceous Stand	N/A	–	N/A	Disturbed	0.39	0	
PC4	N/A	N/A	Non-Native Ornamental Landscaping	N/A	Disturbed	1.95	0	
PC5	N/A	N/A	Planted Agricultural Field	N/A	Disturbed	32.68	16.91	
PC6	N/A	N/A	Cleared Land (Fallow Field)	N/A	Disturbed	2.34	0.18	
PC7	N/A	N/A	Bare Ground	N/A	Disturbed	9.22	1.89	
PC8	N/A	N/A	Paved	N/A	Paved	2.73	0.0	
Total						**50.16**	**19.05**	

*Acres Impacted calculations reflect impacts to each VegCAMP Alliance based on the complete build-out of the entire parcel.

VegCAMP Vegetation Classification and Mapping Program

LIC Locally Important Plant Community

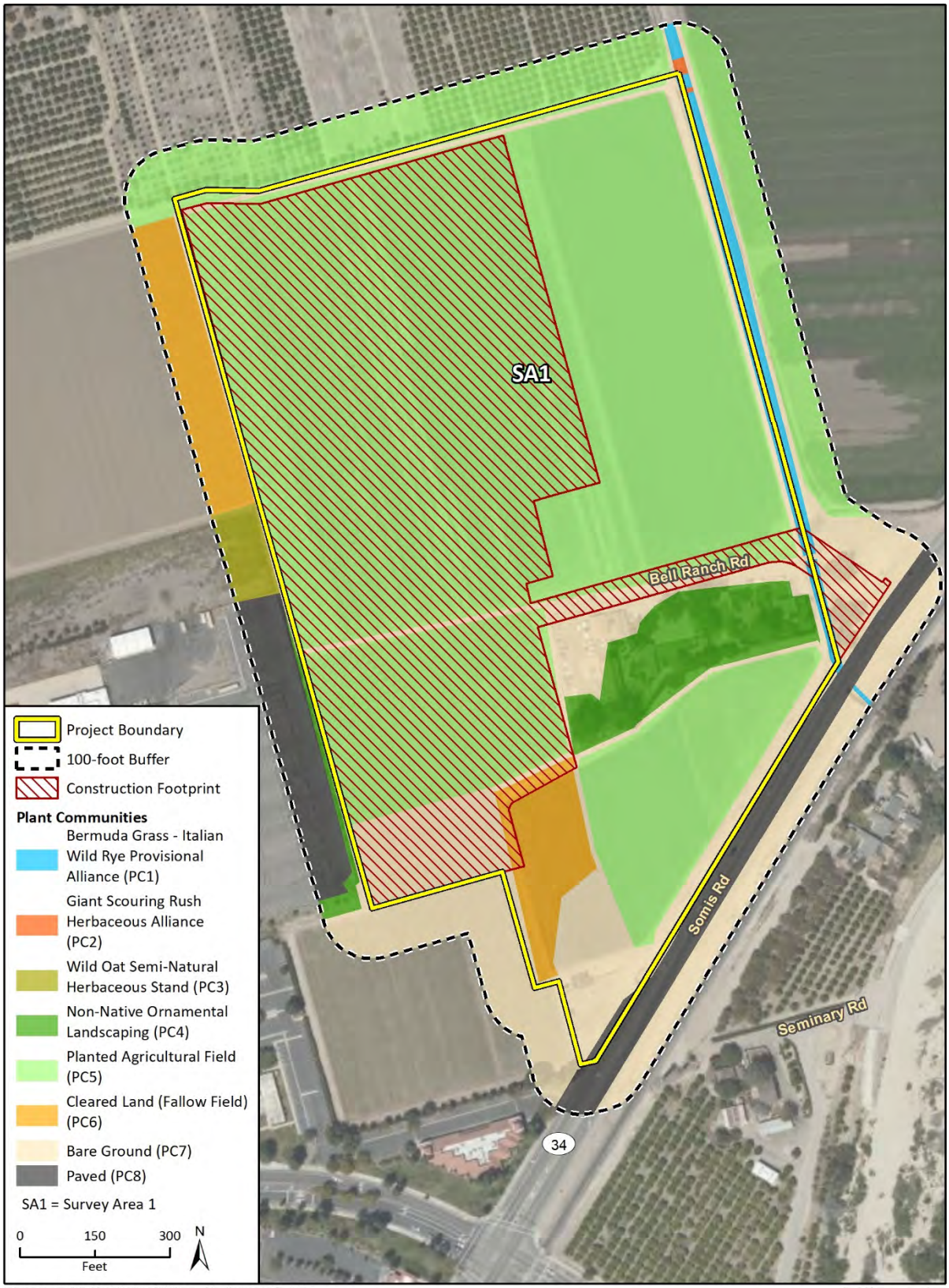
California Department of Fish and Wildlife/Nature NatureServe Rank

G1 or S1 Critically Imperiled Globally or Subnationally (state)

G2 or S2 Imperiled Globally or Subnationally (state)

G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)

Figure 3 Plant Communities



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Environmentally Sensitive Habitat Areas (ESHA)

ESHA is "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (Public Resources Code § 30107.5). ESHA includes coastal dunes, beaches, tidepools, wetlands, creek corridors, and certain upland habitats in the Santa Monica Mountains (Ventura County Coastal Area Plan). This designation only applies in the Coastal Zone and is not applicable to the project.

Habitats that meet the definition of ESHA were not found in the survey area.

Physical Features

No noteworthy physical features, such as rock outcrops, caves, or cliff faces occur in the survey area.

Waters and Wetlands

Waters and/or wetlands were found in the survey area.

Waters and Wetlands Summary

The survey area was evaluated for the presence of potential waters and wetlands subject to regulatory agency jurisdiction, including USACE, CDFW, RWQCB, and County of Ventura under General Plan Policy 1.5.2-4. Two channelized intermittent channels (W1 and W3) and one ephemeral agricultural drainage ditch (W2) were observed in the survey area (Table 4, Figure 4).

The channelized intermittent stream (Grove's Place Drain, W1) runs parallel to and immediately outside the eastern boundary of the project site within the survey area. This stream is mapped by the National Wetlands Inventory (USGS 2020) as Riverine habitat. The stream receives flows from the hills to the north and from surrounding agricultural fields, and empties into Arroyo Las Posas approximately 325 feet southeast of the survey area. It is engineered to follow a straight-line course. The length of the channel adjacent to the project site has a soft bed and banks composed of native soil. A portion of the channel in the survey area on the opposite (south) side of SR 34 is concrete-lined. Ordinary High Water Mark (OHWM) indicators were observed, including changes in vegetation cover and species composition and presence of surface water and soil saturation. The channel is disturbed by regular maintenance of the channel for agricultural activities to allow continued flow. The length of the channel north of SR 34 was primarily dry at the time of the survey, but wet soil and small pools of water were present in some areas. The concrete-lined section contained significant standing water. Review of historical aerial imagery (Google Earth 2020) indicates that the channel lacks relatively permanent flow of water; however, the channel provides surface flow intermittently due to rain events and regular runoff from agriculture. Therefore, the channel may contribute surface flow to nearby Arroyo Las Posas intermittently during a typical year. Vegetation observed in the channel during the survey is described as *Cynodon dactylon – Festuca perennis* Herbaceous Alliance, consisting primarily of non-native, weedy species including Bermuda grass (*Cynodon dactylon*), bentgrass (*Agrostis* sp.), poison hemlock (*Conium maculatum*), Mexican strangletop (*Leptochloa fusca* ssp. *uninervia)*, sedge (*Cyperus* sp.), and castor bean (*Ricinus communis*). However, some areas in the north of the study area were dominated by giant scouring rush (*Equisetum hyemale* ssp. *affine*), a native species that is designated by the USACE (Lichvar *et al.* 2016) as a facultative wetland indicator.

The W3 drainage provides water intermittently, similar to W1, and provides a direct connection to W1. Vegetation and soils observed in this drainage are similar to those observed at W1.

One soil pit was dug in the Grove's Place Drain (W1), and one soil pit was dug in the unnamed drainage (W3) within the Sorrento silty loam soil series mapped by the NRCS. Soils observed at these soil pits within the survey area were composed of loamy mucky minerals (W1), gleyed matrix (W3) and consisted of clay soils, indicating presence of hydric soils. No redox features or oxidation indicators were observed, indicating soils were not well-developed, likely due to the continued maintenance associated with agricultural activities. Soils were well saturated and some areas water was pooled or flowing.

Wetland indicators for hydric soils, hydrophytic vegetation, and hydrology were present in W1 and W3 and spanned the entire width of the channel below the OHWM. Due to the connectivity of W1 and W3 to the nearby Arroyo Las Posas, and the presence of all three wetland indicators, the USACE, RWQCB, and CDFW would likely assert jurisdiction (Figure 5).

Flows from the project site do not enter Drainage W1 because the land slopes in the opposite direction, towards Arroyo Las Posas to the southeast. Flows inside the project site are received by a drainage ditch (W2) located along the western boundary of the project site and are conveyed into the stormwater drain system of the City of Camarillo.

The W2 feature is small, man-made agricultural drainage ditch, constructed from uplands to drain agricultural overflow. It is not mapped by the National Wetlands Inventory or the Ventura County Wetland Inventory. No water was present in the ditch at the time of the survey. No OHWM or other signs of flow or wetland indicator plants were observed. The ditch turns to the west at the southwestern corner of the project site and enters a stormwater drain outside the survey area. The ditch conveys irrigation runoff from upland agricultural areas and has limited function and value, supporting flows ephemerally. Therefore, this feature is not likely subject to USACE, CDFW, or RWQCB jurisdiction.

Table 4 Waters and Wetlands within the Survey Area

Map Key (1)	Wetland Type (2)	Wetland Name (if any)	Wetland Status (3) (if known)	Wetland Size (4)	Hydrologic Status (5)	Primary Water Source (6)	County Wetland Significance (7)	Wetland Distance from Project (8)	Comments (9)
W1	Channelized intermittent stream	Grove's Place Drain	USACE RWQCB CDFW County WPD	281 linear ft/0.13 acre in survey area.	Wet	Rain events, agricultural irrigation	Significant	Occurs within the construction footprint	Channelized intermittent stream with engineered banks; drains hills to north of survey area and surrounding agricultural fields; flows into Arroyo Las Posas 325 feet south of survey area; soil saturation and pooled water present during surveys; contains hydrophytic vegetation (giant scouring rush, Bermuda grass, and sedges).
W2	Ephemeral agricultural drainage ditch	Unnamed	--	730 linear ft/0.07 acre in survey area. Not present in construction footprint.	Dry	Rain events, agricultural irrigation	Not Significant	Approximately 10 feet from construction footprint	Small, man-made drainage ditch; receives run-off from the survey area; empties into City of Camarillo storm drain; no water, evidence of flow, or hydrophytic vegetation observed.
W3	Intermittent Agricultural ditch	Unnamed	USACE RWQCB CDFW County WPD	138 linear ft/0.04 acres in survey area	Wet	Rain events, agricultural irrigation	Significant	Occurs immediately adjacent to the construction footprint	Channelized intermittent stream with engineered banks; drains into Grove's Place Drain (W1); saturation and pooled water present during surveys; contains hydrophytic vegetation (Mexican strangletop, Bermuda grass, and sedges).

USACE	U.S. Army Corps of Engineers regulated
CDFG	California Department of Fish & Game regulated
County	County General Plan Policy 1.5.2-3 regulated
WPD	County Watershed Protection District (red-line stream)

Figure 4 Waters and Wetlands

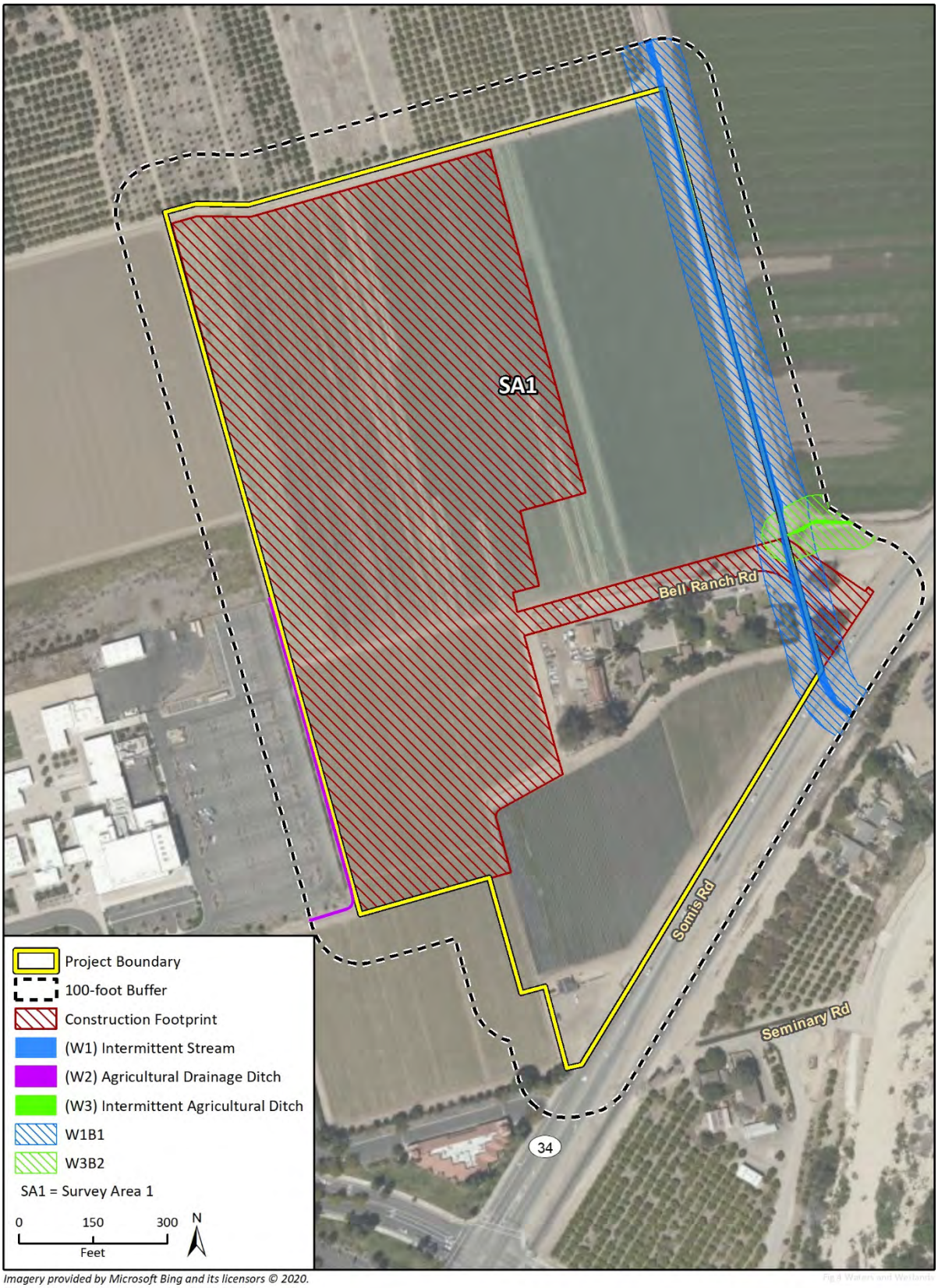

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Figure 5 Jurisdictional Limits of Waters and Wetlands

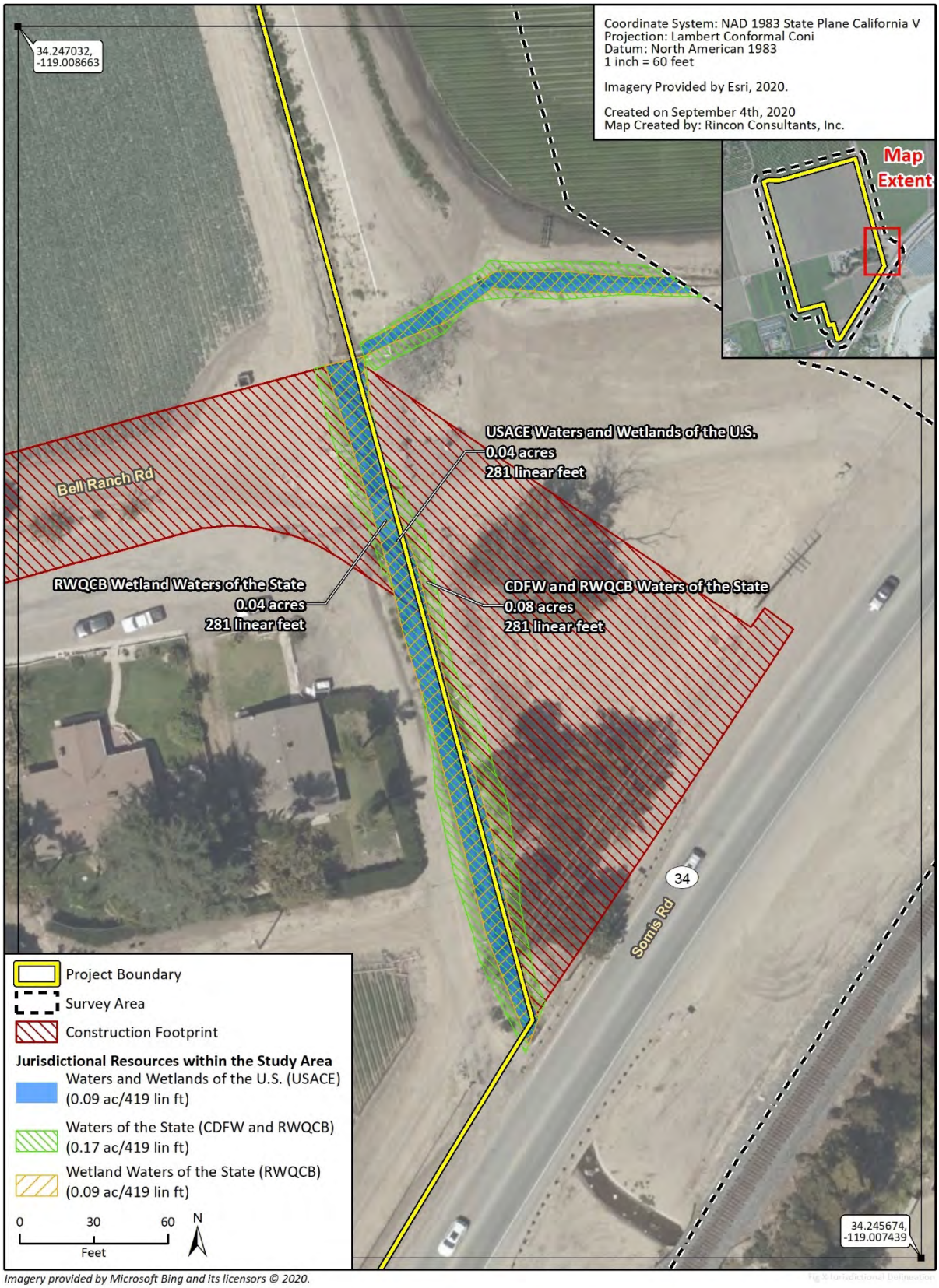


Table 5 Waters/Wetland Buffers

Map Key (1)	Recommended Buffer (2)	Comments
W1B1	50’	The significance of the W1 drainage warrants a buffer to protect its functions and the project includes such a buffer. A reduced buffer of 50 feet is appropriate because the drainage is bordered by an existing unpaved road and active agricultural field.
W3B2	50’	The significance of the W3 drainage warrants a buffer to protect its functions and connection to the W1 drainage, and the project includes such a buffer. A reduced buffer of 50 feet is appropriate because the drainage is bordered by bare ground, disturbed road, and an active agricultural field.
--	0’	The W2 drainage is a small, man-made ditch and is not expected to support special status plant or wildlife species. No buffer is recommended.

3.2 Species

Observed Species

A total of 61 plant species were identified in the survey area, of which eight were native and 53 were non-native. A total of nine wildlife species were observed, all of which were native. Refer to Appendix Two for a list of all plant species observed in the survey area during the survey.

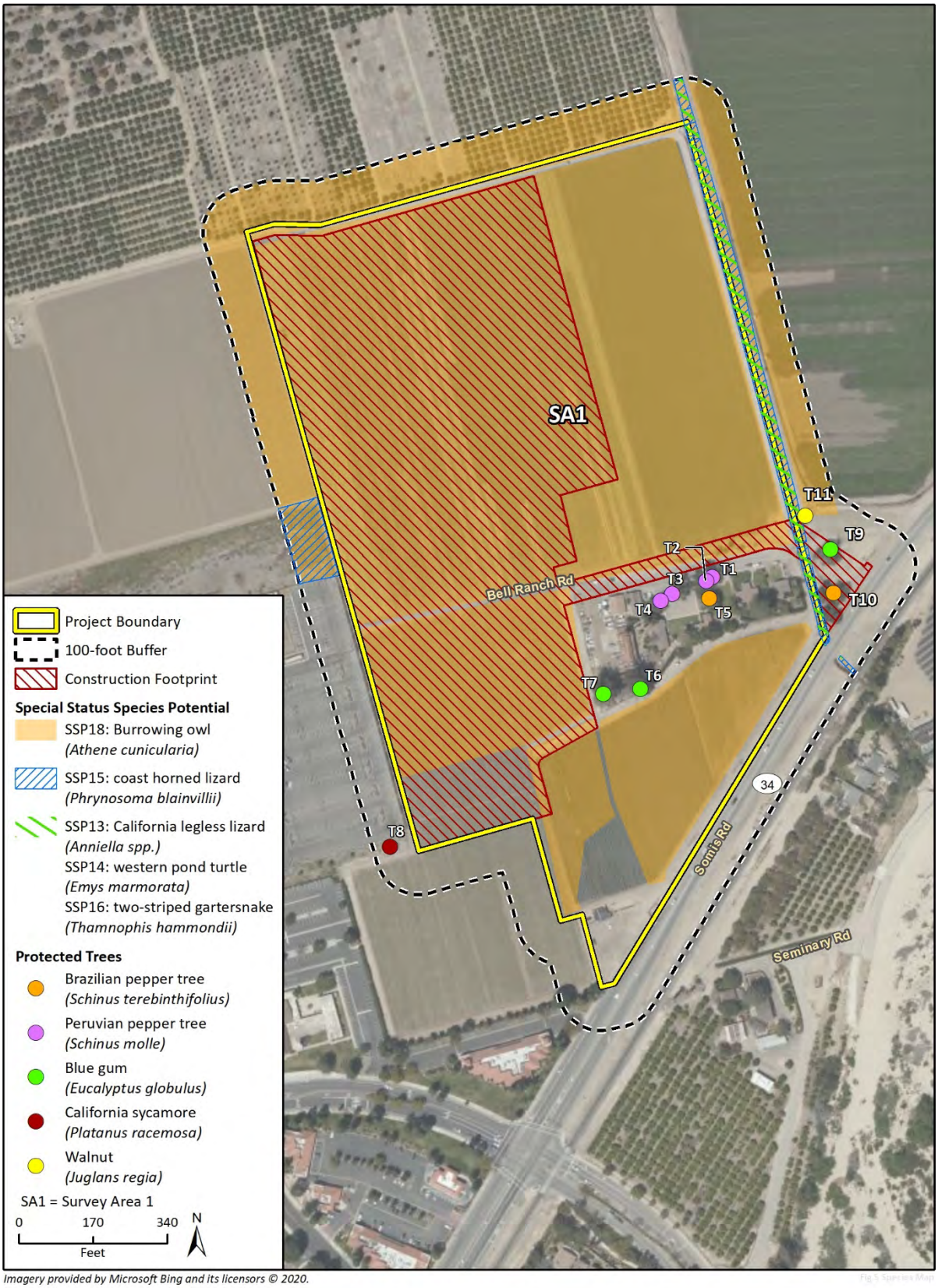
Protected Trees

The Ventura County Non-Coastal Zoning Ordinance, § 8107-25 (Tree Protection Ordinance) defines protected trees as all oaks and sycamores 9.5 inches in circumference or larger (measured at least 4.5 feet above ground), trees of any species with a historical designation, and trees of any species 90 inches in circumference or larger. One protected western sycamore (*Platanus racemosa*) was observed in the survey buffer outside the western boundary of the project site. No oaks, sycamores, or any other native tree species were observed in the project site. Several of the non-native blue gums (*Eucalyptus globulus*), Peruvian pepper trees (*Schinus molle*), and Brazilian pepper trees (*Schinus terebinifolius*) observed near the existing structures in the project site have a girth of greater than 90 inches and therefore area regulated by the Tree Protection Ordinance as heritage trees (Table 6, Figure 6). Two trees occur within the eastern driveway easement and may be removed (T9 and T10); no additional trimming or removal is proposed.

Table 6 Protected Trees

Map Key	Species	Common Name	Girth (circumference)	Impact
T1	*Schinus molle*	Peruvian pepper tree	160 inches	None
T2	*Schinus molle*	Peruvian pepper tree	120 inches	None
T3	*Schinus terebinthifolius*	Brazilian pepper tree	173 inches	None
T4	*Schinus molle*	Peruvian pepper tree	133.5 inches	None
T5	*Schinus molle*	Peruvian pepper tree	204 inches	None
T6	*Eucalyptus globulus*	blue gum	152.5 inches	None
T7	*Eucalyptus globulus*	blue gum	81.5 inches, 124 inches, 88 inches	None
T8	*Platanus racemosa*	California sycamore	23.5 inches	None
T9	*Eucalyptus globulus*	blue gum	192 inches	Removal
T10	*Schinus molle*	Peruvian pepper tree	54 and 24 inches	Removal
T11	*Juglans regia*	English walnut	38, 36, 35, and 27 inches	None

Figure 6 Species Map



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Special-Status Species and Nests

See Appendix One for definitions of the types of special-status species that have federal, state or local protection and for more information on the regulations that protect birds' nests.

Special-status species were not found and have low potential to occur in the survey area(s).

Habitat suitable for nests of birds protected under the Migratory Bird Treaty Act does exist in the survey area.

Special-Status Species Summary

Observed Species

No special-status species were observed during the field survey.

Potential Species

The literature review and CNDDB 10-mile radius search identified 21 special-status plant species and 36 special-status wildlife species, including state- and federally-listed endangered or threatened species (Attachment A). Of these, species that were documented within five miles of the survey area or determined to have a moderate to high potential to occur are listed in Table 7 as required by the ISBA Standards. Table 7 includes nine special-status plant species and 10 special-status wildlife species. No special-status plant species are expected to occur because the entire survey area is disturbed, developed, or engaged in active agricultural use. Five special-status wildlife species have low potential to occur: California legless lizard (*Anniella* spp.), western pond turtle (*Emys marmorata*), coast horned lizard (*Phrynosoma blainvillii*), two-striped gartersnake (*Thamnophis hammondii*), and burrowing owl (*Athene cunicularia*). No special-status wildlife species have moderate or high potential to occur due to the disturbance of the survey area and lack of suitable habitat.

Table 7 Observed and Potentially Occurring Special-Status Species

Map Key	Source	Scientific Name	Common Name	Status	Potential	Habitat Requirements	Adequate Habitat	Adequate Habitat Size	Acres Impacted	Comments
Plants										
SSP1	CNDDB	*Dudleya blochmaniae* ssp. *blochmaniae*	Blochman's dudleya	FE, SE, G3T2, S2, RPR 1B.1	Not Expected	Coastal scrub, coastal bluff scrub, and valley and foothill grassland. Open, rocky slopes; often in shallow clays over serpentine or in rocky areas with little soil. Elevations between 15 and 1,500 feet.	No	No	0	Documented within five miles of survey area (CNDDB 2003, 2010). No coastal dune or coastal scrub habitats are present in the survey area. The entire survey area is developed or disturbed.
SSP2	CNDDB	*Dudleya parva*	Conejo dudleya	FT,G5, S1, RPR 1B.2	Not Expected	Coastal scrub and valley and foothill grassland. In clay or volcanic soils on rocky slopes and grassy hillsides. Elevations between 200 and 1,500 feet.	No	No	0	Documented within five miles of survey area (CNDDB 1987, 2010). No coastal scrub habitats are present in the survey area. The only grassland habitat in the survey area is the small area of disturbed grassland in Grove's Place Drain. The entire survey area is developed or disturbed.
SSP3	CNDDB	*Dudleya verityi*	Verity's dudleya	FT, G1, S1, RPR 1B.1	Not Expected	Chaparral, cismontane woodland, and coastal scrub. Volcanic, rocky soils. Elevation between 150 and 400 feet.	No	No	0	Documented within five miles of survey area (CNDDB 2003, 2015). No chaparral, coastal scrub, or woodland habitats are present in the survey area. The entire survey area is developed or disturbed.
SSP4	CNDDB	*Eriogonum crocatum*	Conejo buckwheat	SR, G1, S1, RPR 1B.2	Not Expected	Chaparral, coastal scrub, and valley and foothill grassland. Conejo volcanic outcrops and other rocky sites. Elevations between 150 and 2,000 feet.	No	No	0	Documented within five miles of survey area (CNDDB 1983, 1991, 2003, 2010). No chaparral or coastal scrub habitats are present in the survey area. The only grassland habitat in the survey area is the small area of disturbed grassland in Grove's Place Drain. The entire survey area is developed or disturbed.
SSP5	CNDDB	*Monardella sinuata* ssp. *gerryi*	Gerry's curly-leaved monardella	G3T1, S1, RPR 1B.1	Not Expected	Sandy openings in coastal scrub. Elevations between 500 and 800 feet.	No	No	0	Documented within five miles of survey area (CNDDB 1934, 2015). No coastal scrub habitat is present in the survey area. The entire survey area is developed or disturbed.
SSP6	CNDDB	*Navarretia ojaiensis*	Ojai navarretia	G2, S2, RPR 1B.1.	Not Expected	Openings in chaparral, coastal scrub, and valley and foothill grassland. Elevations between 800 and 2,000 feet.	No	No	0	Documented within five miles of survey area (CNDDB 2014). No chaparral or coastal scrub habitats are present in the survey area. The only grassland habitat in the survey area is the small area of disturbed grassland in Grove's Place Drain. The entire survey area is developed or disturbed.
SSP7	CNDDB	*Pentachaeta lyonii*	Lyon's pentachaeta	FE, SE, G1, S1, RPR 1B.1	Not Expected	Chaparral, valley and foothill grassland, and coastal scrub. Edges of clearings in chaparral, usually at the ecotone between grassland and chaparral or edges of firebreaks. Elevations between 100 and 2,100 feet.	No	No	0	Documented within five miles of survey area (CNDDB 1998, 2000, 2016). No chaparral or coastal scrub habitats are present in the survey area. The only grassland habitat in the survey area is the small area of disturbed grassland in Grove's Place Drain. The entire survey area is developed or disturbed.
SSP8	CNDDB	*Pseudognaphalium leucocephalum*	White rabbit-tobacco	G4, S2, RPR 2B.2	Not Expected	Chaparral, cismontane woodland, coastal scrub, and riparian woodland. Sandy, gravelly soils. Elevations between sea level and 7,000 feet.	No	No	0	Documented within five miles of survey area (CNDDB 1959). No chaparral, coastal scrub, or woodland habitats are present in the survey area. The entire survey area is developed or disturbed.
SSP9	CNDDB	*Senecio aphanactis*	Chaparral ragwort	G3, S2, RPR 2B.2	Not Expected	Chaparral, cismontane woodland, and coastal scrub. Drying alkaline flats. Elevations between 50 and 2,700 feet.	No	No	0	Documented within five miles of survey area (CNDDB 1978). No chaparral, coastal scrub, or woodland habitats are present in the survey area. The entire survey area is developed or disturbed.
Fish										
SSP10	CNDDB	*Gila orcuttii*	Arroyo chub	SSC, G2, S2	Not Expected	Clear, small to medium size streams with gravel, rubble, and rock substrates as well with vegetation. Water may be swift moving or relatively calm.	No	No	0	Documented within five miles of the survey area (CNDDB 2000; Santa Clara River). No perennial stream or river habitat is present in the survey area.
SSP11	CNDDB	*Oncorhynchus mykiss irideus* pop. 10	Steelhead – southern California DPS	FE, G5T1Q, S1	Not Expected	Rivers and streams seasonally accessible from the coastal ocean.	No	No	0	Documented within five miles of the survey area (CNDDB 2013; Santa Clara River). No perennial stream or river habitat is present in the survey area.
Mammals										
SSP12	CNDDB	*Taxidea taxus*	American badger	G5, S3, SSC	Not Expected	Grasslands and open areas with grasslands, including parklands, farms, and treeless areas with friable soil and a supply of rodent prey. May also be found in forest glades and meadows, marshes, and brushy areas.	No	No	0	Documented within five miles of the survey area (CNDDB 2013). The only grassland habitat in the survey area is the small area of disturbed grassland in Grove's Place Drain. The entire survey area is developed or disturbed.

Map Key	Source	Scientific Name	Common Name	Status	Potential	Habitat Requirements	Adequate Habitat	Adequate Habitat Size	Acres Impacted	Comments
Reptiles										
SSP13	CNDDB	*Anniella* spp.	California legless lizard	G3G4, S3S4, SSC	Low	This element represents California records of Anniella not yet assigned to new species within the *Anniella pulchra* complex. Contra Costa County south to San Diego, within a variety of open habitats. Variety of habitats; generally in moist, loose soil.	No	No	0	Documented within five miles of the survey area (CNDDB 2011, 2012, 2014, 2016). Moist soil is present in the Grove's Place Drain channel (W1) in the east side of the survey area. Habitat in the channel is disturbed and located approximately 300 feet from the construction footprint.
SSP14	CNDDB	*Emys marmorata*	Western pond turtle	G3G4, S3, SSC	Low	Permanent or intermittent waters, including marshes, streams, rivers, ponds, and lakes with large numbers of emergent logs, boulders, or dense aquatic vegetation.	No	No	0	Documented within five miles of the survey area (CNDDB 2000). The Grove's Place Drain channel (W1) in the east side of the survey area may provide marginally suitable habitat when water is present, but aerial imagery suggests that little to no water is present at most times. The habitat in the channel is disturbed and does not contain deep pools or basking sites (rocks or logs). The channel is located approximately 300 feet from the construction footprint.
SSP15	CNDDB	*Phrynosoma blainvillii*	Coast horned lizard	G3G4, S3S4, SSC	Low	Scrublands, grasslands, coniferous and broadleaf forests and woodlands.	No	No	0	Documented within five miles of the survey area (CNDDB 2007). No scrubland or woodlands habitats are present in the survey area, and the only grassland habitats are small areas of disturbed grassland in Grove's Place Drain and along the western boundary of the survey area. The entire survey area is developed or disturbed.
SSP16	CNDDB	*Thamnophis hammondii*	Two-striped gartersnake	G4, S3S4, SSC	Low	Coastal California from vicinity of Salinas to northwest Baja California. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth. Elevations between sea and approximately 7,000 feet.	No	No	0	Documented within five miles of the survey area (CNDDB 1995). Marginally suitable habitat exists in Grove's Place Drain in the east side of the survey area, but the bed is not rocky and riparian vegetation is not present. Habitat in the channel is disturbed and located approximately 300 feet from the construction footprint.
Insects										
SSP17	CNDDB	*Bombus crotchii*	Crotch bumble bee	SC, G3G4, S1S2	Not Expected	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	No	No	0	Documented within five miles of the survey area (CNDDB 1963). The entire survey area is developed or disturbed. Food plants were not observed during the survey.
Birds										
SSP18	CNDDB	*Athene cunicularia*	Burrowing owl	G4, S3, SSC	Low	Grasslands, rangelands, agricultural areas, deserts, or other open dry areas with low vegetation.	No	No	0	Documented within five miles of the survey area (CNDDB 2010). Agricultural areas are present in the survey area. No evidence of burrows was observed during the survey. The project site is outside the current breeding range of burrowing owl, but transient or overwintering individuals could occur.
SSP19	CNDDB	*Vireo bellii pusillus*	Least Bell's vireo	FE, SE, G5, S2	Not Expected	Lowland riparian habitat with dense shrubbery or scrubby habitat including brushy fields, early successional growth, riverine scrub, and coastal chaparral.	No	No	0	Documented within five miles of the survey area (CNDDB 2007, 2008, 2009, 2010, 2017). No riparian habitat is present in the survey area. The entire survey area is developed or disturbed. Vegetation in the portion of Arroyo Las Posas closest to the survey area (approximately 325 feet) is sparse and not suitable for nesting least Bel's vireos.

Map Key	Source	Scientific Name	Common Name	Status	Potential	Habitat Requirements	Adequate Habitat	Adequate Habitat Size	Acres Impacted	Comments

FE Federally Endangered
FT Federally Threatened
SE California Endangered
ST California Threatened
SC State Candidate Species
SSC California Species of Special Concern
FP Fully Protected, CDFW

California Department of Fish and Wildlife/NatureServe Rank
G1 or S1 Critically Imperiled Globally or Subnationally (state)
G2 or S2 Imperiled Globally or Subnationally (state)
G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)

California Rare Plant Rank (RPR)
RPR 1A California Native Plant Society/CDFW listed as presumed to be extinct
RPR 1B California Native Plant Society/CDFW listed as rare or endangered in California and elsewhere
RPR 2 California Native Plant Society/CDFW listed as rare or endangered in California but more common elsewhere
RPR 3 California Native Plant Society/CDFW listed as in need of more information
RPR 4 California Native Plant Society/CDFW listed as of limited distribution or infrequent throughout a broader area in California
VCLIS Locally Important Species

Other
CNDDB California Natural Diversity Database

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Nesting Bird Summary

The field survey was conducted during the nesting season, but no nests or birds exhibiting nesting behaviors were observed. The ornamental trees and shrubs associated with the cluster of existing structures in the middle of the survey area, and the structures themselves, are suitable nesting habitat for a number of bird species common in the area. The planted fields, fallow fields, and bare ground that occupy most of the remainder of the survey area are marginally suitable nesting habitat for some ground-nesting bird species. Although the value of nesting habitats in the survey area is limited by the lack of native vegetation and the high level of disturbance due to agricultural operations, nesting birds protected by the federal Migratory Bird Treaty Act and the California Fish and Game (CFG) Code 3503 do have potential to nest in the survey area.

3.3 Wildlife Movement and Connectivity

Wildlife movement or connectivity features, or evidence thereof, were found in the survey area.

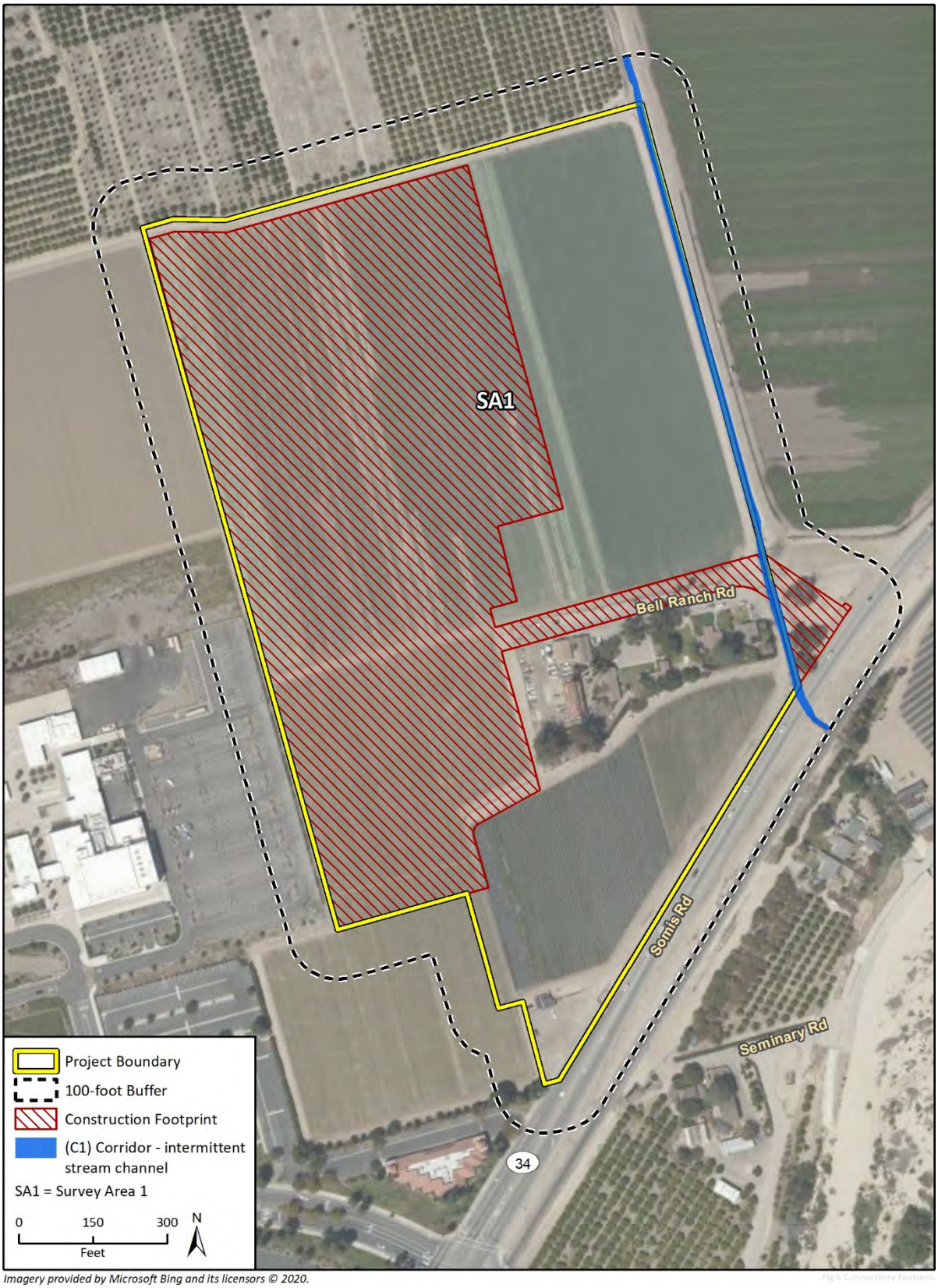
Connectivity Features

The survey area is not located in the Santa Monica - Sierra Madre Habitat Connectivity Corridor (Spencer et al. 2010), or in an area zoned by Ventura County as a Habitat Connectivity Wildlife Corridor. Because the survey area is developed for agriculture it is generally not attractive to wildlife. The nearest natural habitat is in Arroyo Las Posas, approximately 325 feet to the southeast on the opposite side of SR 34 and a railroad. The channelized intermittent stream on the eastern edge of the survey area (Grove's Place Drain, W1) connects to Arroyo Las Posas and passes beneath the highway and railroad. It may serve as a minor corridor (Table 8, Figure 7) facilitating wildlife movement between Arroyo Las Posas and open space in the Santa Susana Mountains to the north of the survey area.

Table 8 Connectivity Features

Map Key	Type of Connectivity Feature	Description	Species Observed	Evidence	Functional Group/Species Expected	Habitats Connected	Comments
C1	Corridor	Channelized ephemeral stream with native and non-native vegetation	None	None	Mammals, birds, reptiles, amphibians	Arroyo Las Posas to the south, Santa Susana Mountains to the north	None

Figure 7 Connectivity Features



4 Recommended Impact Assessment and Mitigation

4.1 Sufficiency of Biological Data

Additional information needed to make CEQA findings and develop mitigation measures: No

Additional biology-related surveys or permits needed prior to issuance of land use permit: Permits would be required from the USACE, RWQCB, and CDFW for any work impacting the Grove's Place Drain (W1).

4.2 Impacts and Mitigation

This section includes impacts and mitigation as it pertains to the ISAG (2011) Item 4, Biological Resources. Question 4D pertaining to ESHA is not included since the project is outside the coastal zone. A section discussing General Plan Consistency consistent with question 4F has been added.

a. Species. Project: PS-M; Cumulative: LS

4.A.1) Would the proposed project, directly or indirectly impact one or more plant and/or animal species by reducing the species' population, reducing the species' habitat, fragmenting its habitat, or restricting its reproductive capacity?

The survey area is entirely within a previously developed area engaged in active agricultural production. Project development would not result in any loss of special-status species' habitat. No state- or federally-listed endangered, threatened, or special-status wildlife or plant species were observed in the survey area during the field survey. Fifty-seven special-status wildlife and plant species have been documented within 10 miles of the survey area, including state- and federally-listed endangered or threatened species (refer to Appendix One). California legless lizard, western pond turtle, and two-striped garter snake have low potential to occur in Grove's Place Drain (W1) on the eastern side of the survey area but are not expected to occur in the project footprint, which is located approximately 300 feet from that habitat. Coast horned lizard has low potential to occur in Grove's Place Drain or in a small area of grassland habitat (PC3) mapped on the western side of the survey area. It is not expected to occur in the project footprint due to the agricultural use and disturbance. Transient of overwintering individuals of burrowing owl have low potential to occur throughout most of the survey area, including the construction footprint. No nesting burrowing owls are expected to occur because the survey area is outside the current nesting range of the species.

Special-status species documented in the vicinity of the project site could occur in Arroyo Las Posas southeast of the survey area, but indirect impacts related to noise, lighting, human presence, or dust during construction and operation are not anticipated due to the distance of proposed construction activities from this habitat. Indirect impacts to fish and other aquatic species in Arroyo Las Posas as a result of sedimentation run-off would be avoided through adherence to County Stormwater Quality Management Ordinance No. 4142.

Twelve trees protected by the Ventura County Tree Protection Ordinance are present in the survey area. One is California sycamore located outside the project site. The remainder are non-native

trees with circumferences greater than 90 inches that are located primarily outside the construction footprint, except for one large Eucalyptus and Peruvian peppertree, which will be removed as part of access road improvements to the east of the project site within the easement. No construction activities would occur within the driplines and no further tree removal or trimming is proposed for the remaining trees.

Birds protected by the CFG Code and the federal Migratory Bird Treaty Act may nest in the survey area or adjacent properties. No special-status bird species are expected to nest in the survey area due to the absence of suitable nesting habitat for these species. Depending on the distance from construction activities, nesting bird species could be directly or indirectly impacted by project construction.

Significance Finding – Project Impacts

Impacts to special-status species would be less than significant because none have a moderate or greater potential to occur in the construction footprint. Potential impacts to protected nesting birds would be made less than significant with adherence to Mitigation Measure BIO-1. While not anticipated, impacts to introduced protected trees resulting from project implementation would require a ministerial tree permit, and would be considered less than significant.

Significance Finding – Cumulative Impacts

Due to developed and disturbed condition of the survey area and the lack of anticipated impacts to special-status species, the project would contribute at a less than significant level to the cumulative impact on special status species.

Avoidance and Minimization Measures

Mitigation Measure BIO-1: Pre-Construction Surveys for Nesting Birds

PURPOSE

Applied to the project for consistency with CFG Code 3503 and the Migratory Bird Treaty Act regulations addressing native nesting bird protection, and CDFW directives for a 300-foot survey buffer to account for indirect impacts in adjacent suitable nesting habitat during the nesting season.

REQUIREMENTS

The Permittee shall conduct all demolition, construction, ground disturbance, or vegetation clearing activities (collectively, “construction activities”) in such a way as to avoid protected nesting birds. No construction activities shall occur on the project site during the breeding and nesting season (February 1 – August 31), or if construction activities must occur during the nesting season, a pre-activity survey shall be conducted for active bird nests (those containing eggs or nestlings, or with juvenile birds still dependent on the nest). The survey shall be conducted by a qualified biologist not more than seven days prior to the initiation of construction activities. The nesting bird survey shall cover the construction footprint plus a buffer of 100 feet, as feasible. Any active nests that are present shall be avoided until determined by the biologist to no longer be active. The biologist shall determine appropriate avoidance buffers for each nest based on species, nest location, and type of disturbance proposed in the vicinity of the nest. If construction activities are delayed after the survey has been conducted, the qualified biologist shall conduct an additional nesting bird survey

such that no more than seven days have elapsed between the last survey and the commencement of construction activities.

DOCUMENTATION

The Permittee shall provide a signed contract with a County-approved qualified biologist to the Planning Division ensuring that a nesting bird survey will be conducted not more than seven days prior to initiation of construction activities. The Permittee shall submit a memorandum to the Planning Division within 14 days of the nesting bird survey, notifying the Planning Division of the results of the survey and measures taken to avoid nesting birds.

TIMING

Prior to the issuance of a Zoning Clearance, the Permittee shall provide the signed contract to the Planning Division for review and approval. Within 14 days of the nesting bird survey, the Permittee shall provide a memorandum reporting the results.

MONITORING AND REPORTING

The Permittee shall confirm with the Planning Division that a contract has been signed with a County-approved qualified biologist to implement the requirements of this condition prior to issuance of a Zoning Clearance for grading. The Planning Division maintains copies of the signed contract and the nesting bird survey report provided by the Permittee in the project file. With the implementation of Mitigation Measure BIO-1, impacts to protected nesting birds would be mitigated to a less than significant level.

MAPPED INFORMATION

If nesting birds are located in the survey area, appropriate avoidance buffers will be marked in the field and mapped.

b. Ecological Communities. Project: PS-M; Cumulative: N

Sensitive Plant Communities

4.B.1) Temporarily or permanently remove sensitive plant communities through construction, grading, clearing, or other activities?

Plant communities are considered special-status outside the coastal zone if designated sensitive by CDFW (CDFW 2020a) or if they are considered Locally Important by the lead agency. One sensitive plant community (giant scouring rush) is present in the survey area. It occurs in two small patches in Grove's Place Drain (W1) near the northeast corner of the project site. This vegetation is located approximately 300 feet outside the construction footprint, and no impacts direct impacts would occur as a result of project implementation.

4.B.2) Result in indirect impacts from project operation at levels that will degrade the health of a sensitive plant community?

Indirect impacts to the giant scouring rush community would be less than significant because no proposed construction activities would occur within 300 feet, and because run-off from the project site does not enter Grove's Place Drain (W1). Indirect impacts resulting from dust during

construction would be further reduced with adherence to dust-control measures in the Ventura County Non-Coastal Zoning Ordinance. The project landscaping plan avoids impacts from invasive plant species by selecting only landscape plants not identified as invasive by Cal-IPC (Cal-IPC 2020).

Waters and Wetlands

Would the proposed project:

4.C.1) Cause any of the following activities within waters or wetlands: removal of vegetation; grading; obstruction or diversion of water flow; change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other unground piping; or any disturbance of the substratum?

The study area was evaluated for waters and wetlands subject to regulatory agency jurisdiction. Potentially jurisdictional waters or wetlands are located in the project site, specifically, within Grove's Place Drain (W1) along the eastern extent of the construction footprint where road improvements will occur (refer to Figure 7). No project activities are proposed in the two other agricultural ditches (W2 and W3).

The proposed project will temporarily impact approximately 0.08 acre (281 linear feet) of streambed within RWQCB and CDFW jurisdiction, approximately 0.04 acres (281 linear feet) of wetland waters of the state within RWQCB jurisdiction, and approximately 0.04 acres (281 linear feet) of wetland and waters of the U.S. within USACE jurisdiction (Figure 5). Impacts are associated with the proposed road improvements. Therefore, impacts to waters and wetlands will result from project implementation, which constitutes a potentially significant, but mitigable impact. Implementation of the Mitigation Plan (Mitigation Measure BIO-2) will serve as compensatory mitigation for impacts to waters and wetlands at a 1:1 mitigation to impact ratio, or as approved by the resource agencies. Applicable permits shall be obtained from the appropriate federal, state and local agencies for work within Grove's Place Drain (W1) prior to project initiation. Conditions in these permits may augment or supersede Mitigation Measure BIO-2, if more stringent.

When considering the extent of the impacts to Grove's Place Drain, relative to the size of the watershed, it is unlikely that the project would result in significant impacts to the chemical, biological, and physical functions of the nearby Arroyo Las Posas. Project activities will not result in obstruction or diversion of water flow, change in velocity, siltation, volume of flow or runoff rate, placement of fill or structures that obstruct flow. Road improvements may result in temporary disturbance to vegetation and substratum; however, this drainage is maintained for agricultural purposes and regularly disturbed and impacts form project activities would be considered less than significant. Road crossing improvements may impact wetlands and the streambed within the jurisdiction of the USACE, RWQCB, and/or CDFW; therefore, appropriate permits from each agency will be required, including appropriate mitigation for impacts to wetlands.

Impacts to waters and wetlands within the project site would be mitigated by adherence to a Mitigation Plan that addresses restoration of impacted resources and minimized through adherence of agency permit measures. Any potential impacts would be further reduced through adherence to County Stormwater Quality Management Ordinance No. 4142.

4.C.2) Result in disruptions to wetland or riparian plant communities that will isolate or substantially interrupt contiguous habitats, block seed dispersal routes, or increase vulnerability of wetland species to exotic weed invasion or local extirpation?

Arroyo Las Posas, a seasonal stream with associated riparian vegetation, occurs approximately 425 feet south of the project site. The project would result in no direct impacts to this feature. Grove's Place Drain (W1) enters Arroyo Las Posas; however, project activities will not impact the riparian plant communities in Arroyo Las Posas. Impacts to these communities from introduction of invasive plants will be avoided by adherence to a landscaping plan that utilizes landscape plants not identified as invasive by Cal-IPC (Cal-IPC 2020). The site is not adjacent to natural areas, and development of the project would not interrupt habitat contiguity or block seed dispersal routes.

4.C.3) Interfere with ongoing maintenance of hydrological conditions in a water or wetland?

The proposed project would not alter the hydrology of the developed site, and therefore the project would not impact the flows of nearby waterways. Runoff from the project site would be treated in on-site stormwater detention basins. As occurs under current conditions, outflow from the basins would be released into the City of Camarillo storm drain system.

4.C.4) Provide an adequate buffer for protecting the functions and values of existing waters or wetlands?

All proposed construction activities would occur more than 50 feet from Grove's Place Drain (W1) and the intermittent drainage (W3) to the east of the project site, except for proposed road improvements crossing Grove's Place Drain. Due to the lack of ecological function of the man-made ephemeral ditch to the west of the project site (W2), and regular agricultural maintenance the ditch receives, no buffers are proposed. Arroyo Las Posas is located greater than 150 feet from any proposed construction activity and is separated from the project site by SR 34 and a railroad and will not be impacted by construction activities. These buffers would be adequate to attenuate indirect effects such as noise, dust, and human presence during construction, and the ecological function of the drainage features would not be affected.

Significance Finding

Project impacts to Grove's Place Drain (W1) will be potentially significant unless mitigation is incorporated. With adherence to Mitigation Measure BIO-2, direct and indirect impacts to waters and wetlands will be less than significant.

Significance Finding – Cumulative Impacts

Road improvements would replace and expand the existing stream crossing to allow for additional traffic to the proposed development. The stream crossing would continue to allow surface flow of Grove's Place Drain into the downstream Arroyo Las Posas and would not significantly impact existing habitat values and functions of either Grove's Place Drain or Arroyo Las Posas; therefore, the project would not contribute considerably to a larger cumulative impact.

Avoidance and Minimization Measures

Mitigation Measure BIO-2: Mitigation Plan

PURPOSE

To mitigate potentially significant impacts to USACE, RWQCB, and CDFW waters and wetlands as a result of road improvements across Grove's Place Drain (W1).

REQUIREMENTS

The Permittee shall restore herbaceous wetland communities temporarily impacted by project activities, including *Equisetum hyemale* Herbaceous Alliance and *Cynodon dactylon – Festuca perennis* Herbaceous Alliance, at a 1:1 mitigation to impact ratio (estimated at 0.09 acre total based on current design). The Permittee shall contract with a County-approved qualified biologist to prepare a Mitigation Plan that must include restoring these impacted communities occurring in the wetland features within the construction footprint. Planting palettes shall approximate existing species composition, except that non-native species such as *Cynodon dactylon* shall not be planted. The Mitigation Plan shall include, but not be limited to, the following components:

- A description of the purpose and goals of the mitigation project including the improvement of specific physical, chemical, and/or biological functions at the mitigation site.
- A description of the plant community type(s) and amount(s) that will be provided by the mitigation and how the mitigation method will achieve the mitigation project goals.
- A plant palette and methods of salvaging, propagating, and planting the site to be restored.
- Methods of soil preparation.
- Method and timing of irrigation.
- Best Management Practices (BMPs) that will be utilized to avoid erosion and excessive runoff before plant establishment.
- Maintenance and monitoring necessary to ensure that the restored plant communities meet the success criteria.
- Schedule for restoration activities including weed abatement, propagating and planting, soil preparation, irrigation, erosion control, qualitative and quantitative monitoring, and reporting to the County. Identification of measurable performance standards for each objective to evaluate the success of the compensatory mitigation.
- Identification of contingency and adaptive management measures to address unforeseen changes in site conditions or other components of the mitigation project.

The Mitigation Plan shall provide for monitoring to be conducted for five years or until the performance criteria are met, whichever occurs sooner. The success criteria are as follows:

- The mitigation site shall attain a native percent cover that reflects that of the target communities occurring in unimpacted reference sites;
- Nonnative species shall comprise less than five percent cover and zero percent cover of species listed as "High" on the California Invasive Plant Council's Invasive Plant Inventory Database (or its successor); and
- Irrigation of the native plantings shall cease no later than the end of the third year of restoration monitoring.

DOCUMENTATION

The Permittee shall submit to the Planning Division for review and approval, a Mitigation Plan, prepared by a County-approved qualified biologist, that satisfies the applicable requirements of this condition. Monitoring reports shall be submitted and reviewed by the Planning Director pursuant to the schedule outlined in the approved Mitigation Plan. If success criteria are not met within the five-year monitoring period, contingency measures shall be implemented, and restoration and monitoring shall continue until success criteria are met.

TIMING

Prior to the issuance of a Zoning Clearance, the Permittee shall submit the Mitigation Plan to the Planning Division for review and approval.

MONITORING AND REPORTING

Permittee shall submit for Planning Division review and approval of the Mitigation Plan prior to issuing the Zoning Clearance for construction.

MAPPED INFORMATION

Impacts to Grove's Place Drain will be mapped and overlaid with the jurisdictional limits of each regulatory agency (CDFW, RWQCB, and USACE).

c. Habitat Connectivity (Migration Corridors). Project: LS; Cumulative: LS

Would the proposed project:

4.E.1) Remove habitat within a wildlife movement corridor?

4.E.2) Isolate habitat?

4.E.3) Construct or create barriers that impede fish and/or wildlife movement, migration or long-term connectivity or interfere with wildlife access to foraging habitat, breeding habitat, water source, or other areas necessary for their reproduction?

The project site is not located in a mapped wildlife corridor. Little wildlife movement is expected to occur in the project site due to the lack of native habitats and high level of disturbance. Grove's Place Drain (W1) is identified as a potential corridor for wildlife movement along the eastern edge of the survey area. However, it is located entirely outside the construction footprint. The proposed project would not remove or alter any native habitats, and the proposed development would not impede wildlife movement at a level significantly greater than the existing conditions. Therefore, the project would not isolate habitat or interfere with wildlife movement patterns.

4.E.4) Intimidate fish or wildlife via the introduction of noise, light, development or increased human presence?

During construction and operation, the project site would have increased activity, human presence, and noise that could affect wildlife. However, wildlife use of the project site is expected to be low under current conditions, as the area is developed for agriculture. Additionally, any animals occurring in the area are likely accustomed to high levels of noise and other disturbance resulting from agricultural operations. The nearest natural habitat (in Arroyo Las Posas) is approximately 325 feet to the southeast of the survey area and on the opposite side of a busy road (SR 34) and a

railroad. Grove's Place Drain (W1) is located at least 300 feet from any proposed construction activity. Due to the distance and high level of existing disturbance, the project would not significantly elevate noise, light, or human presence in these areas. Therefore, indirect impacts related to intimidation of wildlife would be less than significant.

Significance Finding – Project Impacts

Based on the relatively small size of the project site, the existing agricultural development, and the lack of migration corridors, no direct impacts to local or regional wildlife movement and habitat connectivity are anticipated and indirect impacts would be less than significant.

Significance Finding – Cumulative Impacts

Based on review of the Planning Division's list of pending and approved projects, cumulative impacts to local and regional wildlife movement and connectivity would be less than significant.

Avoidance and Minimization Measures

None.

d. Consistency with Applicable General Plan Goals and Policies

4.F.1) Would the proposed project be consistent with the applicable General Plan Goals and Policies for Item 4 of the Initial Study Assessment Guidelines?

The proposed project is consistent with the General Plan Goals and Policies. The project has been evaluated for potential impacts on biological resources and would not result in any significant impacts on biological resources (Policies 1.5.2-(1-8). Although the channelized ephemeral stream (Grove's Place Drain, W1) observed in the survey area is likely subject to County regulatory jurisdiction, it is located more than 300 feet outside the proposed construction footprint.

Site Photographs

Photograph 1. (Photo point 1) View to east showing existing structures and unpaved parking area.

Photograph 2. (Photo point 1) View to south showing an existing unpaved road, an active agricultural field on the right, and existing structures and ornamental trees on the left.

Photograph 3. (Photo point 2) View to east showing a fallow field in the foreground and an active agricultural field and existing structures in the background.

Photograph 4. (Photo point 2) View to south showing a fallow field and a fence at the western boundary of the project site.

Photograph 5. (Photo point 3) View to south of a drainage ditch at the western boundary of the project site.

Photograph 6. (Photo point 4) View to the north showing an existing unpaved road and active agricultural field in the foreground and an orchard in an adjacent property in the background.

Photograph 7. (Photo point 5) View to south showing an active agricultural field.

Photograph 8. (Photo point 6) View to north showing Grove's Place Drain at the eastern boundary of the project site.

Photograph 9. (Photo point 6) View to south showing existing unpaved roads, structures, and ornamental vegetation.

Photograph 10. (Photo point 7) View to south showing an active agricultural field in the foreground and Somis Road/SR 34 in the background.

Appendix One

Summary of Biological Resource Regulations (Directly From 2012 ISBA Standards)

Summary of Biological Resource Regulations

The Ventura County Planning Division, as "lead agency" under CEQA for issuing discretionary land use permits, uses the relationship of a potential environmental effect from a proposed project to an established regulatory standard to determine the significance of the potential environmental effect. This Appendix summarizes important biological resource regulations which are used by the Division's biologists (consultants and staff) in making CEQA findings of significance:

- Sensitive Status Species Regulations
- Nesting Bird Regulations
- Plant Community Regulations
- Tree Regulations
- Waters and Wetlands Regulations
- Coastal Habitat Regulations
- Wildlife Migration Regulations
- Locally Important Species/Communities Regulations

Sensitive Status Species Regulations

Federally Protected Species

Ventura County is home to 29 federally-listed endangered and threatened plant and wildlife species. The United States Fish and Wildlife Service (USFWS) regulates the protection of federally-listed endangered and threatened plant and wildlife species.

FE (FEDERALLY ENDANGERED)

A species that is in danger of extinction throughout all or a significant portion of its range.

FT (FEDERALLY THREATENED)

A species that is likely to become endangered in the foreseeable future.

FC (FEDERAL CANDIDATE)

A species for which USFWS has sufficient information on its biological status and threats to propose it as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

FSC (FEDERAL SPECIES OF CONCERN)

A species under consideration for listing, for which there is insufficient information to support listing at this time. These species may or may not be listed in the future, and many of these species were formerly recognized as "Category-2 Candidate" species.

The USFWS requires permits for the "take" of any federally-listed endangered or threatened species. "Take" is defined by USFWS as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct; may include significant habitat

modification or degradation if it kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering."

The ESA does not provide statutory protection for candidate species or species of concern, but USFWS encourages conservation efforts to protect these species. USFWS can set up voluntary Candidate Conservation Agreements and Assurances, which provide non-federal landowners (public and private) with the assurance that if they implement various conservation activities to protect a given candidate species, they will not be subject to additional restrictions if the species becomes listed under the ESA.

State Protected Species

The California Department of Fish and Wildlife (CDFW) regulates the protection of endangered, threatened, and fully protected species listed under the California Endangered Species Act. Some species may be jointly listed under the state and federal Endangered Species Acts.

SE (CALIFORNIA ENDANGERED)

A native species or subspecies which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

ST (CALIFORNIA THREATENED)

A native species or subspecies that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as "rare" on or before January 1, 1985, is a "threatened species."

SFP (CALIFORNIA FULLY PROTECTED SPECIES)

This designation originated from the State's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians, reptiles, and birds. Most fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations.

SR (CALIFORNIA RARE)

A species, subspecies, or variety of plant is rare under the Native Plant Protection Act when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. Animals are no longer listed as rare; all animals listed as rare before 1985 have been listed as threatened.

SSC (CALIFORNIA SPECIES OF SPECIAL CONCERN)

Animals that are not listed under the California Endangered Species Act, but which nonetheless 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist.

The CDFW requires permits for the "take" of any State-listed endangered or threatened species. Section 2080 of the California Fish and Game Code prohibits "take" of any species that the California

Fish and Game Commission determines to be endangered or threatened. “Take” is defined in Section 86 of the California Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

The California Native Plant Protection Act protects endangered and rare plants of California. Section 1908, which regulates plants listed under this Act, states: “no person shall import into this state, or take, possess, or sell within this state, except as incident to the possession or sale of the real property on which the plant is growing, any native plant, or any part or product thereof, that the commission determines to be an endangered native plant or rare native plant, except as otherwise provided in this chapter.”

Unlike endangered, threatened, and rare species, for which a take permit may be issued, California Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

The California Endangered Species Act does not provide statutory protection for California species of special concern, but they should be considered during the environmental review process.

California Rare Plant Ranks (RPR)

Plants with 1A, 1B, 2 or 4 should always be addressed in CEQA documents. Plants with an RPR 3 do not need to be addressed in CEQA documents unless there is sufficient information to demonstrate that an RPR 3 plant meets the criteria to be listed as an RPR 1, 2, or 4.

RPR 1A

Plants presumed to be extinct because they have not been seen or collected in the wild in California for many years. This list includes plants that are both presumed extinct in California, as well as those plants which are presumed extirpated in California. A plant is extinct in California if it no longer occurs in or outside of California. A plant that is extirpated from California has been eliminated from California, but may still occur elsewhere in its range.

RPR 1B

Plants that are rare throughout their range with the majority of them endemic to California. Most of the plants of List 1B have declined significantly over the last century.

RPR 2

Plants that are rare throughout their range in California but are more common beyond the boundaries of California. List 2 recognizes the importance of protecting the geographic range of widespread species.

Plants identified as RPR 1A, 1B, and 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code and are eligible for state listing.

RPR 3

A review list for plants for which there is inadequate information to assign them to one of the other lists or to reject them.

RPR 4

A watch list for plants that are of limited distribution in California.

Global and Subnational Rankings

Though not associated directly with legal protections, species have been given a conservation status rank by NatureServe, an international non-profit conservation organization that is the leading source for information about rare and endangered species and threatened ecosystems. The Ventura County Planning Division considers the following ranks as sensitive for the purposes of CEQA impact assessment (G = Global, S = Subnational or State):

- G1 or S1: Critically Imperiled
- G2 or S2: Imperiled
- G3 or S3: Vulnerable to extirpation or extinction

Locally Important Species

Locally important species' protections are addressed below under "Locally Important Species/Communities Regulations."

For lists of some of the species in Ventura County protected by the above regulations, go to http://www.ventura.org/rma/planning/ceqa/bio_resource_review.html.

Migratory Bird Regulations

The federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game (CFG) Code (3503, 3503.5, 3511, 3513 and 3800) protect most native birds. In addition, the federal and state endangered species acts protect some bird species listed as threatened or endangered. Project-related impacts to birds protected by these regulations would normally occur during the breeding season, because unlike adult birds, eggs and chicks are unable to escape impacts.

The MBTA implements various treaties and conventions between the United States and Canada, Japan, Mexico, and Russia for the protection of migratory birds, which occur in two of these countries over the course of one year. The Act maintains that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Bird species protected under the provisions of the MBTA are identified by the List of Migratory Birds (Title 50 of the Code of Federal Regulations, Section 10.13 as updated by the 1983 American Ornithologists' Union (AOU) Checklist and published supplements through 1995 by the USFWS).

CFG Code 3513 upholds the MBTA by prohibiting any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA. In addition, there are CFG Codes (3503, 3503.5, 3511, and 3800) which further protect nesting birds and their parts, including passerine birds, raptors, and state "fully protected" birds.

NOTE: These regulations protect almost all *native nesting birds*, not just sensitive status birds.

Plant Community Regulations

Plant communities are provided legal protection when they provide habitat for protected species or when the community is in the coastal zone and qualifies as environmentally sensitive habitat area (ESHA).

Global and Subnational Rankings

Though not associated directly with legal protections, plant communities have been given a conservation status rank by NatureServe, an international non-profit conservation organization that is the leading source for information about rare and endangered species and threatened ecosystems. The Ventura County Planning Division considers the following ranks as sensitive for the purposes of CEQA impact assessment (G = Global, S = Subnational or State):

- G1 or S1: Critically Imperiled
- G2 or S2: Imperiled
- G3 or S3: Vulnerable to extirpation or extinction

CDFW Rare

Rare natural communities are those communities that are of highly limited distribution. These communities may or may not contain rare, threatened, or endangered species. Though the Native Plant Protection Act and the California Endangered Species Act provide no legal protection to plant communities, CDFW considers plant communities that are ranked G1-G3 or S1-S3 (as defined above) to be rare or sensitive, and therefore these plant communities should be addressed during CEQA review.

Environmentally Sensitive Habitat Areas

The Coastal Act specifically calls for protection of "environmentally sensitive habitat areas" or ESHA, which it defines as: "Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (Section 30107.5).

ESHA has been specifically defined in the Santa Monica Mountains. For ESHA identification in this location, the California Coastal Commission, the agency charged with administering the Coastal Act, has described the habitats that are considered ESHA. A memo from a Coastal Commission biologist that describes ESHA in the Santa Monica Mountains can be found at: http://www.ventura.org/rma/planning/ceqa/bio_resource_review.html.

Locally Important Communities

The Ventura County Initial Study Assessment Guidelines defines a locally important community as one that is considered by qualified biologists to be a quality example characteristic of or unique to the County or region, with this determination being made on a case-by-case basis. The County has not developed a list of locally important communities, but has deemed oak woodlands to be a locally important community through the County's *Oak Woodland Management Plan*.

Tree Regulations

Selected trees are protected by the Ventura County Tree Protection Ordinance, found in Section 8107-25 of the Ventura County Non-Coastal Zoning Ordinance. This ordinance, which applies in the

unincorporated areas of the County outside the coastal zone, regulates—through a tree permit program—the removal, trimming of branches or roots, or grading or excavating within the root zone of a "protected tree." Individual trees are the focus of the ordinance, while oak woodlands are additionally protected as “locally important communities.

The ordinance allows removal of five protected trees (only three of which can be oaks or sycamores; none of which can be heritage or historical trees) through a ministerial permit process. Removal of more/other than this may trigger a discretionary tree permit.

If a proposed project cannot avoid impacts to protected trees, mitigation of these impacts (such as replacement of lost trees) is addressed through the tree permit process—unless the impacts may affect biological resources beyond the tree itself, such as to sensitive status species that may be using the tree, nesting birds, the tree’s role as part of a larger habitat, etc. These secondary impacts have not been addressed through the tree permit program and must be addressed by the biologist in the biological assessment in accordance with the California Environmental Quality Act (CEQA).

A tree permit does not, however, substitute as mitigation for impacts to oak woodlands. The Public Resources Code requires that when a county is determining the applicability of CEQA to a project, it must determine whether that project “may result in a conversion of oak woodlands that will have a significant effect on the environment.” If such effects (either individual impacts or cumulative) are identified, the law requires that they be mitigated. Acceptable mitigation measures include, but are not limited to, conservation of other oak woodlands through the use of conservation easements and planting replacement trees, which must be maintained for seven years. In addition, only 50% of the mitigation required for significant impacts to oak woodlands may be fulfilled by replanting oak trees.

The following trees are protected in the specified zones. Girth is measured at 4.5 feet from the midpoint between the uphill and downhill side of the root crown.

Protected Trees

Common Name/Botanical Name (Genus species)	Girth Standard (circumference in inches)	Applicable Zones	
		All Base Zones	SRP*1*
Alder (*Alnus* all species)	9.5		X
Ash (*Fraxinus* all species)	9.5		X
Bay (*Umbellularia californica)*	9.5		X
Cottonwood (*Populus* all species)	9.5		X
Elderberry (*Sambucus* all species)	9.5		X
Big Cone Douglas Fir (*Pseudotsuga macrocarpa)*	9.5		X
White Fir (*Abies concolor)*	9.5		X
Juniper (*Juniperus californica)*	9.5		X
Maple (*Acer macrophyllum)*	9.5		X
Oak (Single) (*Quercus* all species)	9.5	X	X
Oak (Multi) (*Quercus* all species)	6.25	X	X
Pine (*Pinus* all species)	9.5		X
Sycamore (*Platanus* all species)	9.5	X	X
Walnut (*Juglans* all species)	9.5		X
Historical Tree[3] (any species)	(any size)	X	X
Heritage Tree[4] (any species)	90.0	X	X

X Indicates the zones in which the subject trees are considered protected trees.

[1] SRP - Scenic Resource Protection Overlay Zone

[2] SHP - Scenic Highway Protection Overlay Zone

[3] Any tree or group of trees identified by the County or a city as a landmark, or identified on the Federal or California Historic Resources Inventory to be of historical or cultural significance, or identified as contributing to a site or structure of historical or cultural significance.

[4] Any species of tree with a single trunk of 90 or more inches in girth or with multiple trunks, two of which collectively measure 72 inches in girth or more. Species with naturally thin trunks when full grown or naturally large trunks at an early age, or trees with unnaturally enlarged trunks due to injury or disease must be at least 60 feet tall or 75 years old.

Waters and Wetlands Regulations

Numerous agencies control what can and cannot be done in or around streams and wetlands. If a project affects an area where water flows, ponds or is present even part of the year, it is likely to be regulated by one or more agencies. Many wetland or stream projects will require three main permits or approvals (in addition to CEQA compliance). These are:

- 404 Permit (United States Army Corps of Engineers)
- 401 Certification (Regional Water Quality Control Board)
- Streambed Alteration Agreement (California Department of Fish and Wildlife)

For a more thorough explanation of wetland permitting, see the Ventura County's "Wetland Project Permitting Guide" at http://www.ventura.org/rma/planning/ceqa/bio_resource_review.html.

404 Permit (United States Army Corps of Engineers)

Most projects that involve streams or wetlands will require a 404 Permit from the United States Army Corps of Engineers (USACE. Section 404 of the federal Clean Water Act is the primary federal program regulating activities in wetlands. The Act regulates areas defined as "waters of the United States." This includes streams, wetlands in or next to streams, areas influenced by tides, navigable waters, lakes, reservoirs and other impoundments. For nontidal waters, USACE jurisdiction extends up to what is referred to as the "ordinary high water mark" as well as to the landward limits of adjacent Corps-defined wetlands, if present. The ordinary high water mark is an identifiable natural line visible on the bank of a stream or water body that shows the upper limit of typical stream flow or water level. The mark is made from the action of water on the streambank over the course of years.

Permit Triggers: A USACE 404 Permit is triggered by moving (discharging) or placing materials—such as dirt, rock, geotextiles, concrete or culverts—into or within USACE jurisdictional areas. This type of activity is also referred to as a "discharge of dredged or fill material."

401 Certification (Regional Water Quality Control Board)

If your project requires a USACE 404 Permit, then you will also need a Regional Water Quality Control Board (RWQCB) 401 Certification. The federal Clean Water Act, in Section 401, specifies that states must certify that any activity subject to a permit issued by a federal agency, such as the USACE, meets all state water quality standards. In California, the state and regional water boards are responsible for certification of activities subject to USACE Section 404 Permits.

PERMIT TRIGGER

A RWQCB 401 Certification is triggered whenever a USACE 404 Permit is required, or whenever an activity could cause a discharge of dredged or fill material into waters of the U.S. or wetlands.

Streambed Alteration Agreement (California Department of Fish and Game)

If your project includes alteration of the bed, banks or channel of a stream, or the adjacent riparian vegetation, then you may need a Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW. The California Fish and Game Code, Sections 1600-1616, regulates activities that would alter the flow, bed, banks, channel or associated riparian areas of a river, stream or lake. The law requires any person, state or local governmental agency or public utility to notify CDFW before beginning an activity that will substantially modify a river, stream or lake.

PERMIT TRIGGERS

A Streambed Alteration Agreement (SAA) is triggered when a project involves altering a stream or disturbing riparian vegetation, including any of the following activities:

- Substantially obstructing or diverting the natural flow of a river, stream or lake
- Using any material from these areas
- Disposing of waste where it can move into these areas

Some projects that involve routine maintenance may qualify for long-term maintenance agreements from CDFG. Discuss this option with CDFG staff.

Ventura County General Plan

The Ventura County General Plan contains policies which also strongly protect wetland habitats.

Biological Resources Policy 1.5.2-3 states**:**

> Discretionary development that is proposed to be located within 300 feet of a marsh, small wash, intermittent lake, intermittent stream, spring, or perennial stream (as identified on the latest US Geological Survey 7½ minute quad map), shall be evaluated by a County approved biologist for potential impacts on wetland habitats. Discretionary development that would have a significant impact on significant wetland habitats shall be prohibited, unless mitigation measures are adopted that would reduce the impact to a less than significant level; or for lands designated "Urban" or "Existing Community", a statement of overriding considerations is adopted by the decision-making body.

Biological Resources Policy 1.5.2-4 states:

> Discretionary development shall be sited a minimum of 100 feet from significant wetland habitats to mitigate the potential impacts on said habitats. Buffer areas may be increased or decreased upon evaluation and recommendation by a qualified biologist and approval by the decision-making body. Factors to be used in determining adjustment of the 100 foot buffer include soil type, slope stability, drainage patterns, presence or absence of endangered, threatened or rare plants or animals, and compatibility of the proposed development with the wildlife use of the wetland habitat area. The requirement of a buffer (setback) shall not preclude the use of replacement as a mitigation when there is no other feasible alternative to allowing a permitted use, and if the replacement results in no net loss of wetland habitat. Such replacement shall be "in kind" (i.e. same type and acreage), and provide wetland habitat of comparable biological value. On site replacement shall be preferred wherever possible. The replacement plan shall be developed in consultation with California Department of Fish and Game.

Coastal Habitat Regulations

Ventura County's Coastal Area Plan and the Coastal Zoning Ordinance, which constitute the "Local Coastal Program" (LCP) for the unincorporated portions of Ventura County's coastal zone, ensure that the County's land use plans, zoning ordinances, zoning maps, and implemented actions meet the requirements of, and implement the provisions and polices of California's 1976 Coastal Act at the local level.

Environmentally Sensitive Habitats

The Coastal Act specifically calls for protection of "environmentally sensitive habitat areas" or ESHA, which it defines as: "Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (Section 30107.5).

Section 30240 of the Coastal Act states:

(a) "Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas."

(b) "Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas."

There are three important elements to the definition of ESHA. First, a geographic area can be designated ESHA either because of the presence of individual species of plants or animals or because of the presence of a particular habitat. Second, in order for an area to be designated as ESHA, the species or habitat must be either rare or it must be especially valuable. Finally, the area must be easily disturbed or degraded by human activities.

Protection of ESHA is of particular concern in the southeastern part of Ventura County, where the coastal zone extends inland (~5 miles) to include an extensive area of the Santa Monica Mountains. For ESHA identification in this location, the Coastal Commission, the agency charged with administering the Coastal Act, has described the habitats that are considered ESHA. A memo from a Coastal Commission biologist that describes ESHA in the Santa Monica Mountains can be found at: http://www.ventura.org/rma/planning/ceqa/bio_resource_review.html.

The County's Local Coastal Program outlines other specific protections to environmentally sensitive habitats in the Coastal Zone, such as to wetlands, riparian habitats, dunes, and upland habitats within the Santa Monica Mountains (M Overlay Zone). Protections in some cases are different for different segments of the coastal zone.

Copies of the Coastal Area Plan and the Coastal Zoning Ordinance can be found at: http://www.ventura.org/rma/planning/Programs/local.html.

Wildlife Migration Regulations

The Ventura County General Plan specifically includes wildlife migration corridors as an element of the region's significant biological resources. In addition, protecting habitat connectivity is critical to the success of special-status species and other biological resource protections. Potential project impacts to wildlife migration are analyzed by biologists on a case-by-case basis. The issue involves both a macro-scale analysis—where routes used by large carnivores connecting very large core habitat areas may be impacted—as well as a micro-scale analysis—where a road or stream crossing may impact localized movement by many different animals.

Locally Important Species/Communities Regulations

Locally important species/communities are considered to be significant biological resources in the Ventura County General Plan.

Locally Important Species

The Ventura County General Plan defines a Locally Important Species as a plant or animal species that is not an endangered, threatened, or rare species, but is considered by qualified biologists to be a quality example or unique species within the County and region. The following criteria further define what local qualified biologists have determined to be Locally Important Species:

LOCALLY IMPORTANT ANIMAL SPECIES CRITERIA

Taxa for which habitat in Ventura County is crucial for their existence either globally or in Ventura County. This includes:

- Taxa for which the population(s) in Ventura County represents 10 percent or more of the known extant global distribution; or
- Taxa for which there are five or fewer *element occurrences*, or less than 1,000 individuals, or less than 2,000 acres of habitat that sustains populations in Ventura County; or,
- Native taxa that are generally declining throughout their range or are in danger of extirpation in Ventura County.

LOCALLY IMPORTANT PLANT SPECIES CRITERIA

- Taxa that are declining throughout the extent of their range AND have five (5) or fewer element occurrences in Ventura County.

The County maintains a list of locally important species, which can be found on the Planning Division website at: http://www.ventura.org/rma/planning/ceqa/bio_resource_review.html. *This list should not be considered comprehensive.* Any species that meets the criteria qualifies as locally important, whether or not it is included on this list.

Locally Important Communities

The Ventura County Initial Study Assessment Guidelines defines a locally important community as one that is considered by qualified biologists to be a quality example characteristic of or unique to the County or region, with this determination being made on a case-by-case basis. The County has not developed a list of locally important communities. Oak woodlands have however been deemed by the Ventura County Board of Supervisors to be a locally important community.

The state passed legislation in 2001, the Oak Woodland Conservation Act, to emphasize that oak woodlands are a vital and threatened statewide resource. In response, the County of Ventura prepared and adopted an Oak Woodland Management Plan that recommended, among other things, amending the County's Initial Study Assessment Guidelines to include an explicit reference to oak woodlands as part of its definition of locally important communities. The Board of Supervisors approved this management plan and its recommendations.

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Appendix Two

Observed Species Tables

Species Observed in the Survey Area

Scientific Name	Common Name	Native	Notes
Plants			
Agapanthus sp.	lily of the Nile	No	W1 drainage
Agrostis sp.	bentgrass		
Apium graveolens	celery	No	agricultural crop
Avena barbata	slender wild oats	No	western survey buffer only
Avena fatua	wildoats	No	western survey buffer only
Baccharis salicifolia	mulefat	Yes	western survey buffer and W1 drainage
Bacopa monnieri	water hyssop	No	western survey buffer only
Brassica nigra	black mustard	No	
Brassica oleracea	cabbage	No	agricultural crop
Bromus catharticus	rescue grass	Yes	W1 drainage
Bromus madritensis ssp. *rubens*	red brome	No	
Capsella bursa-pastoris	Shepherd's purse	No	
Cercis occidentalis	western redbud	Yes	western survey buffer only
Chenopodium murale	nettle leaf goosefoot	No	
Citrus sp.	orange tree	No	near existing residences and in northern survey buffer
Cissus antarctica	Kangaroo vine	No	western survey buffer only
Conium maculatum	poison hemlock	No	W1 drainage
Convolvulus arvensis	field bindweed	No	
Cucurbita sp.	squash	No	agricultural crop
Cynodon dactylon	Bermuda grass	No	W1 drainage
Epilobium ciliatum	smooth willowherb	Yes	W1 drainage
Equisetum hyemale ssp. *affine*	giant scouring rush	Yes	W1 drainage
Erigeron bonariensis	flax-leaved horseweed	No	
Erigeron canadensis	Canada horseweed	No	
Eucalyptus globulus	blue gum	No	near existing residences
Euphorbia serpens	matted sandmat	No	W1 drainage
Festuca perennis	Italian wild rye	No	W1 drainage
Fragaria × ananassa	strawberry	No	agricultural crop
Helianthus annuus	sunflower	Yes	garden variety
Helminthotheca echioides	bristly oxtongue	No	western survey buffer only
Hordeum murinum	foxtail barley	No	western survey buffer and W1 drainage
Lactuca serriola	prickly lettuce	No	
Lepidium didymum	lesser swine cress	No	
Malva nicaeensis	bull mallow	No	western survey buffer only
Malva parviflora	cheeseweed	No	
Medicago lupina	black medick	No	western survey buffer only
Medicago polymorpha	bur clover	No	
Melilotus albus	white sweetclover	No	W1 drainage
Melilotus indicus	sweet clover	No	western survey buffer only

Scientific Name	Common Name	Native	Notes
Musa sp.	plantain	No	near existing residences
Myoporum laetum	myoporum tree	No	near existing residences
Nerium oleander	oleander	No	W1 drainage
Nicotiana glauca	tree tobacco	No	W1 drainage
Persea americana	avocado tree	No	near existing residences
Platanus racemosa	western sycamore	Yes	One tree in western survey buffer, dbh 7.5 inches, planted
Polygonum aviculare ssp. *depressum*	prostrate knotweed	No	
Polypogon monspeliensis	annual beard grass	No	W1 drainage
Portulaca oleracea	purslane	No	
Ricinus communis	castor bean	No	W1 drainage
Rosa sp.	garden rose	No	near existing residences
Rumex crispus	curly dock	No	W1 drainage
Salsola tragus	Russian thistle	No	
Schinus molle	Peruvian pepper tree	No	near existing residences
Schinus terebinthifolia	Brazilian pepper tree	No	near existing residences
Senecio vulgaris	common groundsel	No	
Solanum americanum	common nightshade	Yes	
Solanum lycopersicum	tomato	No	
Sonchus oleraceus	common sow thistle	No	
Tribulus terrestris	puncture vine	No	
Tropaeolum majus	garden nasturtium	No	W1 drainage
Washingtonia robusta	Mexican fan palm	No	
Insects			
Eleodes sp.	stink beetle	Yes	
Vanessa cardui	painted lady	Yes	
Birds			
Calypte anna	Anna's humminbird	Yes	
Corvus brachyrhynchos	American crow	Yes	
Corvus corax	common raven	Yes	
Haemorhous mexicanus	house finch	Yes	
Melospiza melodia	song sparrow	Yes	
Sialia mexicana	western bluebird	Yes	
Spinus psaltria	lesser goldfinch	Yes	

Attachment A

Species Documented by CNDDB within 10 Miles of the Proposed Project

Species Documented by CNDDB within 10 Miles of the Proposed Project

Scientific Name	Common Name	Status	Habitat Requirements
Plants			
Astragalus brauntonii	Braunton's milk-vetch	FE/None G2/S2 1B.1	Chaparral, coastal scrub, and valley and foothill grassland. Recent burns or disturbed areas. Usually on sandstone with carbonate layers. Elevations between sea level and 2,100 feet.
Atriplex serenana var. davidsonii	Davidson's saltscale	None/None G5T1/S1 1B.2	Coastal scrub and coastal bluff scrub. Alkaline soils. Elevations between 30 and 700 feet.
Calochortus clavatus var. gracilis	slender mariposa-lily	None/None G4T2T3/S2S3 1B.2	Chaparral, coastal scrub, and valley and foothill grassland. Elevations between 1,000 and 3,300 feet.
Calochortus plummerae	Plummer's mariposa-lily	None/None G4/S4 4.2	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland. Granitic, rocky soils. Elevations between 300 and 5,600 feet.
Centromadia parryi ssp. australis	southern tarplant	None/None G3T2/S2 1B.1	Margins of marshes and swamps, vernally mesic valley and foothill grassland, and vernal pools. Elevations between sea level 1,600 feet.
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	None/None G3T2/S2 1B.1	Coastal scrub, coastal bluff scrub, and valley and foothill grassland. Open, rocky slopes; often in shallow clays over serpentine or in rocky areas with little soil. Elevations between 15 and 1,500 feet.
Dudleya cymosa ssp. marcescens	marcescent dudleya	FT/CR G5T2/S2 1B.2	Chaparral. Volcanic, rocky soils. Elevations between 500 and 1,700 feet.
Dudleya parva	Conejo dudleya	FT/None G1/S1 1B.2	Coastal scrub and valley and foothill grassland. In clay or volcanic soils on rocky slopes and grassy hillsides. Elevations between 200 and 1,500 feet.
Dudleya verityi	Verity's dudleya	FT/None G1/S1 1B.1	Chaparral, cismontane woodland, and coastal scrub. Volcanic, rocky soils. Elevation between 150 and 400 feet.
Eriogonum crocatum	conejo buckwheat	None/CR G1/S1 1B.2	Chaparral, coastal scrub, and valley and foothill grassland. Conejo volcanic outcrops and other rocky sites. Elevations between 150 and 2,000 feet.
Horkelia cuneata var. puberula	mesa horkelia	None/None G4T1/S1 1B.1	Maritime chaparral, cismontane woodland, and coastal scrub. Sandy or gravelly soils. Elevations between 200 and 2,700 feet.
Lupinus paynei	Payne's bush lupine	None/None G1Q/S1 1B.1	Coastal scrub, riparian scrub, valley and foothill grassland. Sandy soils. Elevations between 700 and 1,400 feet.
Monardella hypoleuca ssp. hypoleuca	white-veined monardella	None/None G4T3/S3 1B.1	Chaparral and cismontane woodland. Elevations between 150 and 5,000 feet.
Monardella sinuata ssp. gerryi	Gerry's curly-leaved monardella	None/None G3T1/S1 1B.1	Sandy openings in coastal scrub. Elevations between 500 and 800 feet.
Navarretia ojaiensis	Ojai navarretia	None/None G2/S2 1B.1	Openings in chaparral, coastal scrub, and valley and foothill grassland. Elevations between 800 and 2,000 feet.
Orcuttia californica	California Orcutt grass	FE/CE G1/S1 1B.1	Vernal pools. Elevations between 50 and 2,200 feet.

Scientific Name	Common Name	Status	Habitat Requirements
Pentachaeta lyonii	Lyon's pentachaeta	FE/CE G1/S1 1B.1	Chaparral, valley and foothill grassland, and coastal scrub. Edges of clearings in chaparral, usually at the ecotone between grassland and chaparral or edges of firebreaks. Elevations between 100 and 2,100 feet.
Pseudognaphalium leucocephalum	white rabbit-tobacco	None/None G4/S2 2B.2	Chaparral, cismontane woodland, coastal scrub, and riparian woodland. Sandy, gravelly soils. Elevations between sea level and 7,000 feet.
Quercus dumosa	Nuttall's scrub oak	None/None G3/S3 1B.1	Closed-cone coniferous forest, chaparral, and coastal scrub. Sandy and clay loam soils. Elevations between 50 and 1,300 feet.
Senecio aphanactis	chaparral ragwort	None/None G3/S2 2B.2	Chaparral, cismontane woodland, and coastal scrub. Drying alkaline flats. Elevations between 50 and 2,700 feet.
Texosporium sancti-jacobi	woven-spored lichen	None/None G3/S1 3	Openings in chaparral. On soil, small mammal pellets, dead twigs, and on *Selaginella* spp. Elevations between 200 and 2,200 feet.
Invertebrates			
Bombus crotchii	Crotch bumble bee	None/SC G3G4/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.
Danaus plexippus pop. 1	monarch - California overwintering population	None/None G4T2T3/S2S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.
Panoquina errans	wandering (=saltmarsh) skipper	None/None G4G5/S2	Southern California coastal salt marshes. Requires moist saltgrass for larval development.
Streptocephalus woottoni	Riverside fairy shrimp	Endangered/None G1G2/S1S2	Endemic to Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. Inhabits seasonally astatic pools filled by winter/spring rains. Hatches in warm water later in the season.
Trimerotropis occidentiloides	Santa Monica grasshopper	None/None G1G2/S1S2	Known only from the Santa Monica Mountains. Found on bare hillsides and along dirt trails in chaparral.
Fish			
Catostomus santaanae	Santa Ana sucker	Threatened/None G1/S1	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	Endangered/Endangered G5T1/S1 FP	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams. Cool, clear water with abundant vegetation.

Scientific Name	Common Name	Status	Habitat Requirements
Gila orcuttii	arroyo chub	None/None G2/S2 SSC	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave & San Diego river basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.
Oncorhynchus mykiss irideus pop. 10	steelhead - southern California DPS	Endangered/None G5T1Q/S1	Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County). Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions.
Amphibians			
Spea hammondii	western spadefoot	None/None G3/S3 SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.
Reptiles			
Anniella spp.	California legless lizard	None/None G3G4/S3S4 SSC	Contra Costa County south to San Diego, within a variety of open habitats. This element represents California records of *Anniella* not yet assigned to new species within the *Anniella* pulchra complex. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.
Anniella stebbinsi	southern California legless lizard	None/None G3/S3 SSC	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.
Arizona elegans occidentalis	California glossy snake	None/None G5T2/S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.
Aspidoscelis tigris stejnegeri	coastal whiptail	None/None G5T5/S3 SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Ground may be firm soil, sandy, or rocky.
Diadophis punctatus modestus	San Bernardino ringneck snake	None/None G5T2T3/S2?	Most common in open, relatively rocky areas. Often in somewhat moist microhabitats near intermittent streams. Avoids moving through open or barren areas by restricting movements to areas of surface litter or herbaceous vegetation.
Emys marmorata	western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 mile from water for egg-laying.

Scientific Name	Common Name	Status	Habitat Requirements
Phrynosoma blainvillii	coast horned lizard	None/None G3G4/S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.
Thamnophis hammondii	two-striped gartersnake	None/None G4/S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 feet elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.
Thamnophis sirtalis pop. 1	south coast gartersnake	None/None G5T1T2/S1S2 SSC	Contra Costa County south to San Diego, within a variety of open habitats. This element represents California records of *Anniella* not yet assigned to new species within the *Anniella pulchra* complex. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.
Birds			
Agelaius tricolor	tricolored blackbird	None/Threatened G2G3/S1S2 SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	None/None G5T3/S3 WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.
Aquila chrysaetos	golden eagle	None/None G5/S3 FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.
Athene cunicularia	burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Threatened/Endangered G5T2T3/S1	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.
Elanus leucurus	white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.
Empidonax traillii extimus	southwestern willow flycatcher	Endangered/Endangered G5T2/S1	Riparian woodlands in Southern California.
Eremophila alpestris actia	California horned lark	None/None G5T4Q/S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, bald hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.

Scientific Name	Common Name	Status	Habitat Requirements
Falco peregrinus anatum	American peregrine falcon	Delisted/Delisted G4T4/S3S4 FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None/Endangered G5T3/S3	Inhabits coastal salt marshes, from Santa Barbara south through San Diego County. Nests in Salicornia on and about margins of tidal flats.
Polioptila californica californica	coastal California gnatcatcher	Threatened/None G4G5T2Q/S2 SSC	Obligate, permanent resident of coastal sage scrub below 2,500 feet in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.
Riparia riparia	bank swallow	None/Threatened G5/S2	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.
Setophaga petechia	yellow warbler	None/None G5/S3S4 SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.
Vireo bellii pusillus	least Bell's vireo	Endangered/Endangered G5T2/S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, *Baccharis*, mesquite.
Mammals			
Antrozous pallidus	pallid bat	None/None G5/S3 SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
Neotoma lepida intermedia	San Diego desert woodrat	None/None G5T3T4/S3S4 SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.
Taxidea taxus	American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.

Scientific Name	Common Name	Status	Habitat Requirements

FE	Federally Endangered
FT	Federally Threatened
SE	California Endangered
ST	California Threatened
SC	California Candidate
SSC	California Species of Special Concern
WL	Watch List
FP	Fully Protected, CDFW

CDFW/NatureServe Rank

G1 or S1	Critically Imperiled Globally or Subnationally (state)
G2 or S2	Imperiled Globally or Subnationally (state)
G3 or S3	Vulnerable to extirpation or extinction Globally or Subnationally (state)

California Rare Plant Rank (RPR)

RPR 1A	California Native Plant Society/CDFG listed as presumed to be extinct
RPR 1B	California Native Plant Society/CDFG listed as rare or endangered in California and elsewhere
RPR 2	California Native Plant Society/CDFG listed as rare or endangered in California but more common elsewhere
RPR 3	California Native Plant Society/CDFG listed as in need of more information.
RPR 4	California Native Plant Society/CDFG listed as of limited distribution or infrequent throughout a broader area in California.
VCLIS	Locally Important Species

Appendix E

Cultural Resources Assessment

Somis Ranch Farmworker Housing Complex Project

Cultural Resources Assessment

prepared for
Ventura County Resource Management Agency, Planning Division
800 South Victoria Avenue, L# 1740
Ventura, California 93009-1740

prepared by
Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

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RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

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Executive Summary

Purpose and Scope

Rincon Consultants, Inc. (Rincon) was retained by the County of Ventura Resources Management Agency, Planning Division to conduct a cultural resources study for the Somis Ranch Farmworker Housing Complex Project (project) in an unincorporated area of Ventura County, California. The purpose of this report is to identify and evaluate cultural resources that may be affected by the implementation of the proposed project, which involves the development of a farmworker affordable housing complex and construction of an on-site community wastewater treatment facility. The current buildings on the property would remain; they would not be demolished, relocated or altered for the proposed project. This cultural resources study was prepared in compliance with the requirements of the California Environmental Quality Act (CEQA). This study includes a cultural resources records search of the California Historical Resources Information System (CHRIS), historical maps and aerial imagery review, Native American outreach including a Sacred Lands File (SLF) search conducted by the Native American Heritage Commission (NAHC), a field survey of the project site, archival research, an evaluation of the subject property for historical significance, and preparation of this report.

Dates of Investigation

Rincon Archaeologist Elaine Foster, BA, contacted the NAHC on March 11, 2020 to request an SLF search and a contact list of Native Americans culturally affiliated with the project site. Ms. Foster sent informal consultation letters to known Native American contacts in the area on March 13, 2020 to request information on potential cultural resources in the project vicinity that may be impacted by project development. The South Central Coastal Information Center staff conducted the cultural resources records search on April 3, 2020. Architectural Historian Rachel Perzel, MA, and Archaeologist Mary Pfeiffer, BA, conducted the cultural resources survey of the project site on April 28, 2020. This report was completed in June 2020.

Summary of Findings

Available information suggests the agricultural property at 2789 Somis Road is eligible for listing in the California Register of Historical Resources and as a Ventura County Landmark; it therefore is presumed to be a historical resource as part of the current project's CEQA compliance. The proposed project does not involve any demolition or direct alteration of any of the buildings on the project site. Rather, the project involves the subdivision of the existing property into four parcels, three of which would include and the construction of an adjacent residential development and an on-site community wastewater treatment facility. The remaining parcel would retain the existing residential and agricultural buildings and remain in agricultural production. The new development would include a landscaping buffer to separate new development from the existing buildings. Therefore, regarding built-environment resources, Rincon recommends a finding of a ***less than significant impact to historical resources*** under CEQA.

The cultural resources records search identified three previously recorded cultural resources within a 0.5-mile radius of the project site, none of which are located within the project site. Of the recorded resources in the records search radius, two are Native American-origin archaeological resources in close proximity to the current project site. The majority of the project site has been previously disturbed from grading, building development and agricultural activities. The pedestrian field survey identified three isolated shell fragments within the southern portion of the project site and intermixed modern and historic-era refuse along the eastern boundary of the project site. The isolated shell fragments were not found in association with any other cultural materials or soil discoloration and are therefore not considered cultural in nature. Based on the size and nature of the historic and modern refuse, the deposit is likely related to episodic refuse dumping that occurred during the construction and maintenance a culvert on the property. Episodic refuse dumping is a common pattern observed in rural communities before the health and safety laws of the 1960s and 1970s (Sullivan and Griffith 2005). The refuse was not formally recorded as a cultural resource as the components could not be dated to a historic period. Native American outreach identified the project site is sensitive for archaeological resources and Patrick Tumamait of the Barbareño/Ventureño Band of Mission Indians recommended Native American monitoring during all ground disturbance associated with the project.

Based on the proximity of the project to a freshwater source, Arroyo Las Posas, the presence of nearby archaeological resources, and the results of Native American outreach, the area is considered sensitive for archaeological resources. Rincon therefore recommends archaeological and Native American monitoring during project ground disturbance. These recommended measures are presented below. With adherence to these recommendations, Rincon recommends a finding of ***less than significant impact with mitigation to archaeological resources*** under CEQA. The project is also required to adhere to regulations regarding the discovery of human remains, detailed below.

Archaeological and Native American Monitoring

Rincon recommends archaeological and Native American monitoring of initial project-related ground disturbing activities. Archaeological monitoring should be performed under the direction of the qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (NPS 1983). The qualified archaeologist, in consultation with the County of Ventura and the Native American monitor, may recommend the reduction or termination of monitoring depending upon observed conditions (e.g., no resources encountered within the first 50 percent of ground disturbance). If archaeological resources are encountered during ground-disturbing activities, work within a minimum of 50 feet of the find must halt and the find evaluated for California Register of Historical Resources (CRHR) eligibility. Should an unanticipated resource be found as CRHR eligible and avoidance is infeasible, additional analysis (e.g., testing) may be necessary to determine if project impacts would be significant.

Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area should be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (NPS 1983) should be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for National Register of Historic Places (NRHP)/CRHR eligibility. If the discovery proves to be significant under the National Historic Preservation Act (NHPA) and/or CEQA

and cannot be avoided by the project, additional work such as data recovery excavation and Native American consultation may be warranted to mitigate any significant impacts to historical resources.

Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground-disturbing activities. If human remains are found, State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of being granted site access to provide recommendations for the treatment of the identified remains.

1 Introduction

Rincon Consultants, Inc. (Rincon) was retained by the County of Ventura Resources Management Agency – Planning Division to conduct a cultural resources assessment for the Somis Ranch Farmworker Housing Complex Project (project) in an unincorporated area of Ventura County, California. As described in greater detail below, this assessment includes a cultural resources records search, a search of the Sacred Lands Files (SLF), Native American group outreach, a field survey of the project site, archival research, and preparation of this report. The project is subject to the requirements of the California Environmental Quality Act (CEQA), with the County of Ventura (County) acting as the lead agency. All work was completed in accordance with the applicable cultural resources guidelines and regulations of CEQA and the County.

1.1 Project Location

The approximately 36.3-acre project site is located at 2789 Somis Road on Assessor Parcel Number (APN) 156-018-048. Situated just north of the intersection of Somis Road/Las Posas Road, the property is in an unincorporated area of Ventura County between the city of Camarillo and the unincorporated community of Somis. The property is located immediately north of and adjacent to the City of Camarillo (City), and outside of the City's sphere of influence and City Urban Restriction Boundary (Figure 1). The property is currently predominantly used for agricultural production and contains two residences and ancillary agricultural buildings (Figure 2). An unpaved road, Bell Ranch Road, provides access to the property from Somis Road. The property is depicted on Township 02 North, Range 20 West, Section 19 of the United States Geological Survey (USGS) *Camarillo*, CA 7.5-minute quadrangle (Figure 1).

1.2 Project Description

The proposed project would entail subdivision of the existing property into four parcels, three of which would be developed for farmworker housing (approximately 18.4 acres) and one of which would remain in agricultural production (approximately 17.9 acres). The proposed housing community would contain 360 dwelling units, 655 vehicular parking spaces, 379 bicycle parking spaces, and amenities such as community centers, play fields, tot lots/playgrounds, picnic tables, barbeques, and a basketball court. The proposed farmworker housing complex would be constructed in three phases and is intended to be 100 percent affordable to farmworkers who qualify as lower income and would include 28 multi-family residential buildings containing one-, two-, and three-bedroom units (Figure 3). Designed in a Spanish Colonial architectural style, the residential buildings would be up to three stories in height, with a maximum height of 35 feet.

The project would also include construction and operation of an on-site community wastewater treatment facility (CWWTF). Treated effluent quality would meet Disinfected Tertiary Recycled Water requirements in accordance with California Code of Regulations Title 22. The recycled water is proposed for use as off-site agricultural irrigation and any water that cannot be used for agriculture (e.g., excess recycled water and treated wastewater effluent not meeting recycled water quality standards) would be dispersed through a series of underground seepage pits on the westerly side of the project site. The proposed CWWTF would be operated by a public sewer agency.

Landscaping will include a landscaped buffer surrounding the housing development in addition to landscaped areas within the housing consisting of drought-tolerant species and smart irrigation controls for water efficiency (Figure 4). The project would also include two on-site stormwater detention basins capture stormwater runoff from the development

The existing residences and ancillary agricultural buildings at on the property would not be demolished or relocated as part of the proposed project.

1.3 Personnel

Rincon Architectural Historian Susan Zamudio-Gurrola, MHP, conducted the archival research and co-authored this report. Architectural Historian Rachel Perzel, MA, conducted the built environment field survey and co-authored this report. South Central Coastal Information Center staff completed the cultural resources records search. Senior Architectural Historian Steven Treffers, MHP managed this cultural resources study and provided senior oversight. Ms. Zamudio-Gurrola, Ms. Perzel and Mr. Treffers meet the Secretary of the Interior's Professional Qualification Standards (PQS) for architectural history and history. Rincon Registered Professional Archaeologist (RPA) Hannah Haas, MA, oversaw the archaeological portion of this study. Ms. Haas meets the Secretary of the Interior's Professional Qualification Standards for archaeology. Archaeologist Elaine Foster, BA, conducted Native American outreach. Archaeologist Mary Pfeiffer, BA, conducted the archaeological survey and co-authored this report. Geographic Information Systems (GIS) Analyst Audrey Brown prepared the figures found in the report. Rincon Principal Christopher A. Duran, MA, RPA, reviewed this report for quality control/quality assurance.

Figure 1 Vicinity Map

Imagery provided by Esri and its licensors © 2020.

Project Location

N

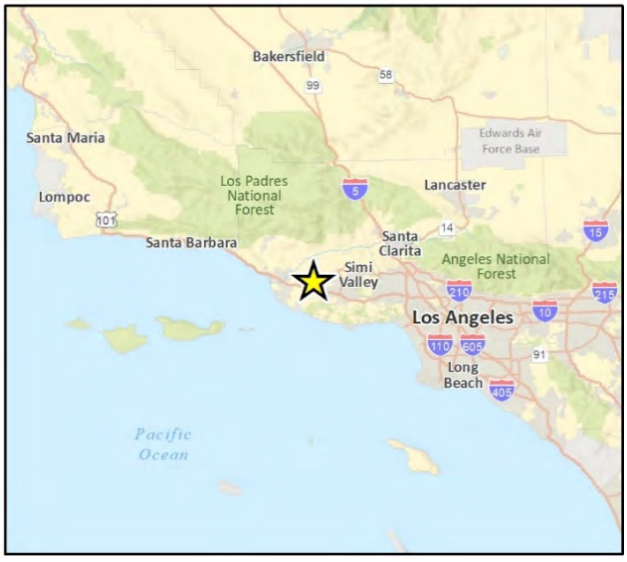
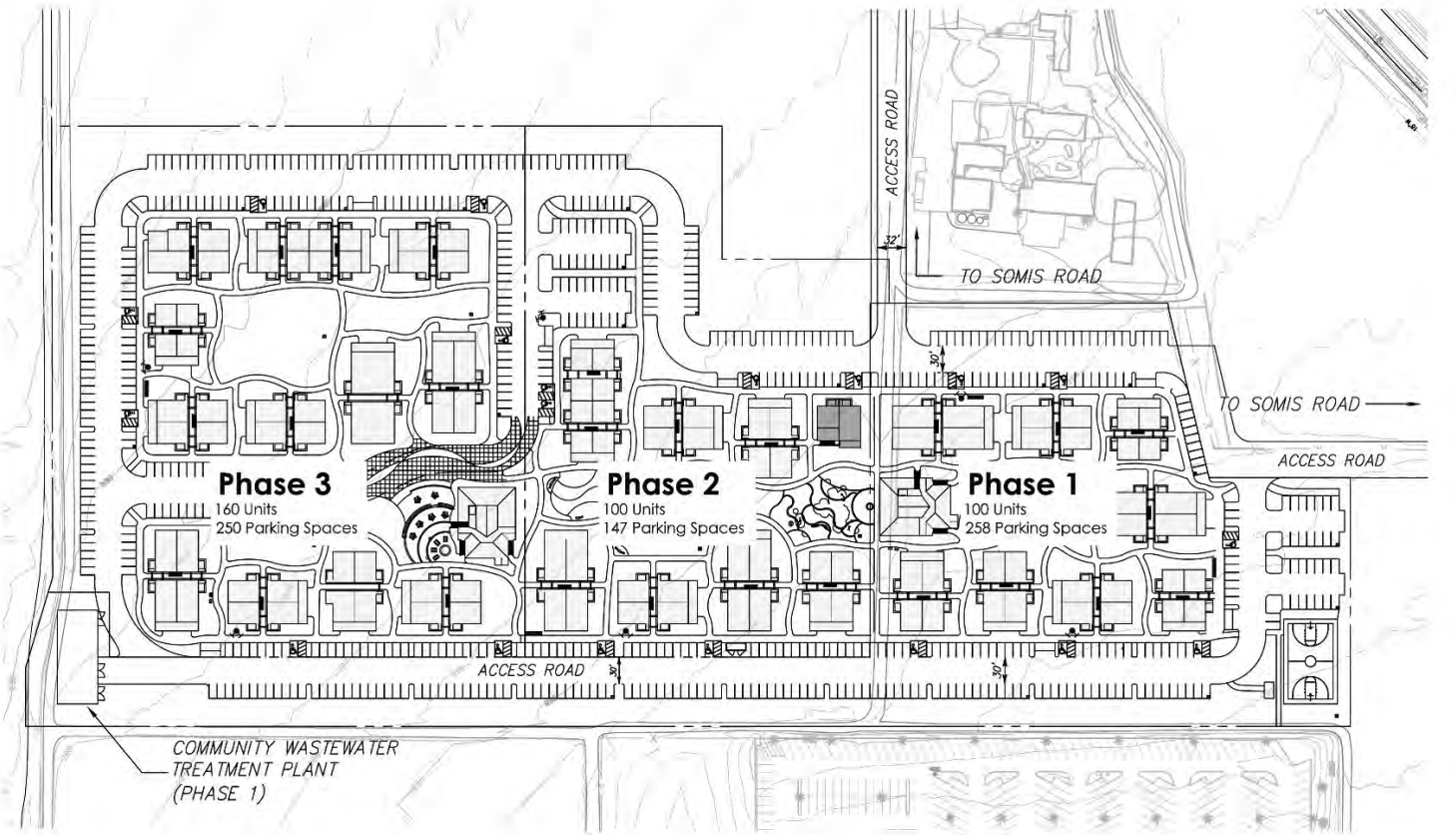


Figure 2 Project Location Map

Imagery provided by Microsoft Bing and its licensors © 2020.

Figure 3 Housing Complex Phasing Plan



Source: Jensen Design & Survey Inc., 2019.

Figure 4 Landscape Plan

Source: RRM Design Group, 2019.

2 Regulatory Setting

This section includes a discussion of the applicable state and local laws, ordinances, regulations, and standards governing cultural resources that should be adhered to before and during implementation of the proposed project.

2.1 CEQA

PRC §5024.1, Section 15064.5 of the CEQA Guidelines, and PRC §§21083.2 and 21084.1 were used as the basic guidelines for this cultural resources study. CEQA (§21084.1) requires that a lead agency determine if a project could have a significant effect on historical resources. A historical resource is one listed in or determined to be eligible for listing in the California Register of Historical Resources (§21084.1), included in a local register of historical resources (§15064.5[a][2]), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (§15064.5[a][3]). Resources listed in the NRHP are automatically listed in the CRHR.

According to CEQA, impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines §15064.5 [b][1]). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register (CEQA Guidelines §15064.5[b][2][A]).

2.2 California Register of Historical Resources

The CRHR was created by Assembly Bill 2881, which was established in 1992. The CRHR is an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change (Public Resources Code, 5024.1[a]). The criteria for eligibility for the CRHR are consistent with the National Register criteria but have been modified for state use in order to include a range of historical resources that better reflect the history of California (Public Resources Code, 5024.1[b]). Certain properties are determined by the statute to be automatically included in the CRHR by operation of law, including California properties formally determined eligible for, or listed in, the National Register.

The CRHR consists of properties that are listed automatically and those that must be nominated through an application and public hearing process. The CRHR automatically includes the following:

Criterion 1: Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage

Criterion 2: Is associated with the lives of persons important to our past

Criterion 3: Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

Criterion 4: Has yielded, or may be likely to yield, information important in prehistory or history

In addition, if it can be demonstrated that a project will cause damage to a *unique archaeological resource*, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC §21083.2[a], [b]).

PRC Section 21083.2(g) defines a *unique archaeological resource* as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

Criterion 1: Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information

Criterion 2: Has a special and particular quality such as being the oldest of its type or the best available example of its type

Criterion 3: Is directly associated with a scientifically recognized important prehistoric or historic event or person

2.3 Local Regulations

County of Ventura

Ventura County Ordinance No. 4225, known as the Cultural Heritage Ordinance, delineates the criteria utilized to assess the eligibility of a potential Cultural Heritage Site, and the manner by which Cultural Heritage Sites are designated. An improvement, natural feature or site may become a designated Cultural Heritage Site if it meets the following applicable criteria:

A. To be designated as a Landmark, a property must meet one of the following criteria

1. It exemplifies or reflects special elements of the County's social, aesthetic, engineering, architectural or natural history;
2. It is associated with events that have made a significant contribution to the broad patterns of Ventura County or its cities, regional history or the cultural heritage of California or the United States;
3. It is associated with the lives of persons important to Ventura County or its cities, California or national history;
4. It has yielded, or has the potential to yield, information important to the prehistory or history of Ventura County or its cities, California or the nation.
5. It embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of a master or possesses high artistic values;
6. Integrity. Establish the authenticity of the resource's physical identity by evidence of lack of deterioration and significant survival of the characteristics that existed during its period of importance. This shall be evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling and association.

B. Sites of Merit – Satisfy the following criteria:

1. Sites of historical, architectural, community or aesthetic merit which have not been designated as a landmark or point of interest, but which are deserving of special recognition; and
2. County approved surveyed sites with a National Register status code of 5 or above.

C. Points of Interest – Satisfy any one the following criteria:

1. That is the site of a building, structure or object that no longer exists, but was associated with historic events, important persons or embodied a distinctive character or architectural style; or
2. That it has historical significance, but has been altered to the extent that the integrity of the original workmanship, materials or style has been substantially compromised; or
3. That the site of a historic event which has no distinguishable characteristics other than that a historic event occurred at that site, and the site is not of sufficient historical significance to justify the establishment of a landmark.

D. District – Meets the criteria below:

1. Possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.
2. Has precisely mapped and defined exterior boundaries, which requires a description of what lies immediately on the edge of the district to allow rational exclusion of adjoining areas.
3. Has at least one of the criteria for significance of Section 1365-5.a. 1-8
4. Complies with the criteria for integrity contained in Section 1365-5.a.6.

In addition to meeting the criteria in Sec. 1365-5 et seq., all the following standards must be met before a site becomes a designated Cultural Heritage Site:

A. It shall have historic, aesthetic or special character or interest for the general public, and not be limited in interest to a special group of persons;
B. Its designation shall not require the expenditure by the County of Ventura of any amount of money not commensurate with the value of the object to be preserved; and
C. Its designation shall not infringe upon the rights of a private owner thereof to make any and all reasonable uses thereof which are not in conflict with the purposes of this Article.

3 Setting

3.1 Prehistoric Setting

During the twentieth century, many archaeologists developed chronological sequences to explain prehistoric cultural changes within all or portions of southern California (c.f., Jones and Klar 2007; Moratto 1984). Wallace (1955, 1978) devised a prehistoric chronology for the southern California coastal region that included four horizons: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Wallace's chronology was based on early studies and lacked the chronological precision of absolute dates (Moratto 1984:159). Since then, Wallace's (1955) synthesis has been modified and improved using thousands of radiocarbon dates obtained by southern California researchers over recent decades (Byrd and Raab 2007:217; Koerper and Drover 1983; Koerper et al. 2002; Mason and Peterson 1994). The prehistoric chronological sequence for southern California presented below is a composite based on Wallace (1955) and Warren (1968) as well as later studies, including Koerper and Drover (1983).

Early Man Horizon (ca. 10,000–6,000 BCE)

Numerous pre-8,000 BCE sites have been identified along the mainland coast and Channel Islands of southern California (c.f., Erlandson 1991; Johnson et al. 2002; Jones and Klar 2007; Moratto 1984; Rick et al. 2001:609). One of them, the Arlington Springs site on Santa Rosa Island, produced human femurs dating to approximately 13,000 years ago (Arnold et al. 2004; Johnson et al. 2002). On San Miguel Island, human occupation at Daisy Cave (SMI-261) has also been dated to nearly 13,000 years ago. This site also included some of the earliest examples of basketry on the Pacific Coast, dating to over 12,000 years old (Arnold et al. 2004).

Although few Clovis or Folsom style fluted points have been found in southern California (e.g., Dillon 2002; Erlandson et al. 1987), Early Man Horizon sites are generally associated with a greater emphasis on hunting than later horizons. Recent data indicate that the Early Man economy was a diverse mixture of hunting and gathering, including a significant focus on aquatic resources in coastal areas (e.g., Jones et al. 2002) and on inland Pleistocene lakeshores (Moratto 1984). A warm and dry 3,000-year period called the Altithermal began around 6,000 BCE. The conditions of the Altithermal are likely responsible for the change in human subsistence patterns at this time, including a greater emphasis on plant foods and small game.

Milling Stone Horizon (6,000–3,000 BCE)

Wallace (1955:219) defined the Milling Stone Horizon as "marked by extensive use of milling stones and mullers, a general lack of well-made projectile points, and burials with rock cairns." The dominance of such artifact types indicate a subsistence strategy oriented around collecting plant foods and small animals. A broad spectrum of food resources were consumed including small and large terrestrial mammals, sea mammals, birds, shellfish and other littoral and estuarine species, near-shore fishes, yucca, agave, and seeds and other plant products (Kowta 1969; Reinman 1964). Variability in artifact collections over time and from the coast to inland sites indicates that Milling Stone Horizon subsistence strategies adapted to environmental conditions (Byrd and Raab 2007:220). The Topanga Canyon site in the Santa Monica Mountains is considered one of the definitive Milling Stone Horizon sites in southern California.

Lithic artifacts associated with Milling Stone Horizon sites are dominated by locally available tool stone. In addition to ground stone tools such as manos and metates, chopping, scraping, and cutting tools are very common. Kowta (1969) attributes the presence of numerous scraper-plane tools in Milling Stone Horizon collections to the processing of agave or yucca for food or fiber. The mortar and pestle, associated with acorns or other foods processed through pounding, were first used during the Milling Stone Horizon and increased dramatically in later periods (Wallace 1955, 1978; Warren 1968).

Intermediate Horizon (3,000 BCE– 500 CE)

Wallace's Intermediate Horizon dates from approximately 3,000 BCE-500 CE and is characterized by a shift toward a hunting and maritime subsistence strategy, as well as greater use of plant foods. During the Intermediate Horizon, a noticeable trend occurred toward greater adaptation to local resources including a broad variety of fish, land mammal, and sea mammal remains along the coast. Tool kits for hunting, fishing, and processing food and materials reflect this increased diversity, with flake scrapers, drills, various projectile points, and shell fishhooks being manufactured.

Mortars and pestles became more common during this transitional period, gradually replacing manos and metates as the dominant milling equipment. Many archaeologists believe this change in milling stones signals a change from the processing and consuming of hard seed resources to the increasing reliance on acorn (e.g., Glassow et al. 1988; True 1993). Mortuary practices during the Intermediate typically included fully flexed burials oriented toward the north or west (Warren 1968:2-3).

Late Prehistoric Horizon (500 CE–Historic Contact)

During Wallace's (1955, 1978) Late Prehistoric Horizon, the diversity of plant food resources and land and sea mammal hunting increased even further than during the Intermediate Horizon. More classes of artifacts were observed during this period and high quality exotic lithic materials were used for small finely worked projectile points associated with the bow and arrow. Steatite containers were made for cooking and storage and an increased use of asphalt for waterproofing is noted. More artistic artifacts were recovered from Late Prehistoric sites and cremation became a common mortuary custom. Larger, more permanent villages supported an increased population size and social structure (Wallace 1955:223).

According to Warren (1968), the period between 500 CE and European contact is divided into three regional patterns. The Chumash Tradition is present mainly in the region of Santa Barbara and Ventura counties; the Takic or Numic Tradition is present mainly in the Los Angeles and Orange Counties region; and the Yuman Tradition is present mainly in the San Diego region. The seemingly abrupt changes in material culture, burial practices, and subsistence focus at the beginning of the Late Prehistoric period are considered the result of a migration to the coast of peoples from inland desert regions to the east. This Takic or Numic Tradition was formerly referred to as the "Shoshonean wedge" or "Shoshonean intrusion" (Warren 1968); however, the Chumash were not assimilated or replaced and retained cultural identity.

After 500 CE, a wealth of ornaments, ceremonial, and artistic items characterize the Chumash Tradition (Warren 1968) along the central coast and offshore islands. Ground stone items include bowls, mortars and pestles, balls, grooved stones, doughnut stones, stone beads, pendants, pipes, tubes, and mammal effigies. Projectile points, both large and small, were typically non-stemmed and leaf-shaped, with convex or concave bases. Chipped stone implements also included drills and scrapers. Utilitarian objects were made from bone (e.g., awls, fishhooks, whistles, and tubes) and

shell (e.g., fishhooks and abalone shell dishes). Shell beads and ornaments were abundant, and bowls, pestles, pipes, and stone tubes were inlaid with shell beads and engraved. Bowls, pipes, and ornaments were commonly manufactured from steatite.

Characteristic mortuary practices during the Chumash Tradition included burial in crowded cemeteries. Burials are normally flexed, placed face down, and oriented toward the north or west (Warren 1968:5). The interments are typically marked by vertical pieces of whalebone, and have abundant grave goods, such as ornaments, effigies, and utensils.

3.2 Ethnographic Context

The project lies within an area historically occupied by the Ventureño Chumash, so called after their historic period association with Mission San Buenaventura (Grant 1978a). The Chumash spoke six closely related Chumashan languages, which have been divided into three branches: Northern Chumash (consisting only of Obispeño), Central Chumash (consisting of Purisimeño, Ineseño, Barbareño, and Ventureño), and Island Chumash (Jones and Klar 2007:80). Groups neighboring Chumash territory included the Salinan to the north, the Southern Valley Yokuts and Tataviam to the east, and the Gabrielino-Tongva to the south.

Early Spanish accounts describe the Santa Barbara Channel as heavily populated at the time of contact. Estimates of the total Chumash population range from 8,000-10,000 (Kroeber 1925:551) to 18,000-22,000 (Cook and Heizer 1965: 21). Coastal Chumash lived in hemispherical dwellings made of tule reed mats, or animal skins in rainy weather. These houses could usually lodge as many as 60 people (Brown 2001). The village of *šukuw* (or *shuku*), at Rincon Point, was encountered by Gaspar de Portola in 1769. This village had 60 houses and seven canoes, with an estimated population of 300 (Grant 1978b).

The *tomol*, or wooden plank canoe, was an especially important tool for the procurement of marine resources and for maintaining trade networks between Coastal and Island Chumash. Sea mammals were hunted with harpoons, while deep-sea fish were caught using nets and hooks and lines. Shellfish were gathered from beach sands using digging sticks, and mussels and abalone were pried from rocks using wood or bone wedges.

The acorn was an especially important resource for many California tribes. Acorn procurement and processing involved the manufacture of baskets for gathering, winnowing, and cooking and the production of mortars and milling stones for grinding. Bow and arrow, spears, traps and other various methods were used for hunting (Hudson and Blackburn 1983). The Chumash also manufactured various other utilitarian and non-utilitarian items. Eating utensils, ornaments, fishhooks, harpoons, and other items were made using bone and shell. *Olivella* shell beads were especially important for trade.

The Chumash were heavily affected by the arrival of Europeans. The Spanish missions and later Mexican and American settlers dramatically altered traditional Chumash lifeways. Chumash population was drastically reduced by the introduction of European diseases. However, many Chumash descendants still inhabit the region.

3.3 History

Post-European contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Each of these periods is briefly described below.

Spanish Period (1769–1822)

Spanish exploration of California began when Juan Rodriguez Cabrillo led the first European expedition into the region in 1542. During this expedition, he anchored in Malibu Lagoon. He named the area Pueblo de las Canoas for the Chumash canoes. For more than 200 years after his initial expedition, Spanish, Portuguese, British, and Russian explorers sailed the California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). In 1769, Gaspar de Portolá and Franciscan Father Junipero Serra established the first Spanish settlement at Mission San Diego de Alcalá. This was the first of 21 missions erected by the Spanish in what was then known as Alta (upper) California between 1769 and 1823. Mission San Buenaventura was founded in 1782. It was during this time that initial Spanish settlement of the project vicinity began.

Mexican Period (1822–1848)

The Mexican Period commenced when news of the success of the Mexican Revolution (1810-1821) against the Spanish crown reached California in 1822. This period saw the privatization of mission lands in California with the passage of the Secularization Act of 1833. This Act enabled Mexican governors in California to distribute mission lands to individuals in the form of land grants. Successive Mexican governors made more than 700 land grants between 1822 and 1846, putting most of the state's lands into private ownership for the first time (Shumway 2007). About 20 land grants (ranchos) were located in Ventura County. The approximately 26,623-acre Rancho Las Posas was originally granted to Jose Carrillo in 1824 (or 1834, depending on the source), and later the title confirmed to Jose de la Guerra y Noriega (Mason 1883; Stork 1891; Westergaard 1920). It is on this former rancho land that the subject property is located.

In 1846, the Mexican-American War was initiated following the annexation of Texas by the United States and a dispute over the boundary of the state between the U.S. and Mexico. On January 10, leaders of the pueblo of Los Angeles surrendered peacefully after Mexican General Jose Maria Flores withdrew his forces. Shortly thereafter, newly appointed Mexican Military Commander of California Andrés Pico surrendered all of Alta California to U.S. Army Lieutenant Colonel John C. Fremont in the Treaty of Cahuenga (Nevin 1978).

American Period (1848–Present)

The Mexican Period officially ended in February 1848 with the signing of the Treaty of Guadalupe Hidalgo, formally concluding the Mexican-American War. Per the treaty, the United States agreed to pay Mexico $15 million for conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico and Wyoming. California gained statehood in 1850, and this political shift set in motion a variety of factors that began to erode the rancho system.

In 1848, the discovery of gold in northern California led to the California Gold Rush, though the first gold was found in 1842 in San Francisquito slightly east of Ventura County (Workman 1935: 107;

Guinn 1977). The presence of commercial grade oil in Ventura County was recognized in 1852 at Rancho Ojai (Franks and Lambert 1985).

By 1853, the population of California exceeded 300,000. Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the southern California economy through 1850s. However, a severe drought in the 1860s decimated cattle herds and drastically affected rancheros' source of income. Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869. Property boundaries that were loosely established during the Mexican era led to disputes with new incoming settlers, problems with squatters, and lawsuits. Given the size of their holdings, the initiation of property taxes proved onerous for many southern California ranchers. Rancheros often were encumbered by debt and the cost of legal fees to defend their property. As a result much of the rancho lands were sold or otherwise acquired by Americans. Most of these ranchos were subdivided into agricultural parcels or towns (Dumke 1944).

Ventura County was officially divided from Santa Barbara County in 1873. The Saugus to Santa Barbara Branch (or Santa Paula Branch) of the Southern Pacific Railroad was constructed in the mid-1880s, encouraging travel through, and settlement of the Santa Clara River Valley, as well as creating a large distribution network for its citrus and other products (Sperry 2006). In the 1880s, a dramatic boom arrived in southern California, fueled by various factors including increasingly accessible rail travel, agricultural development and improved shipment methods, and favorable advertisement (Dumke 1944). In 1883, the California Immigration Commission designed an advertisement declaring the state as "the Cornucopia of the World" (Poole 2002:36). New southern Californian towns were promoted as havens for good health and economic opportunity. The first version of the Southern Pacific's Coast Line, between Los Angeles and Santa Barbara, was completed in 1900 through the Santa Clara Valley. A later version through Santa Susana Pass and bypassing the Saugus Branch was completed in 1904, offering a coastal alternative to the Central Valley mainline.

Somis

The town of Somis was developed on the lands of Rancho Las Posas. Thomas Bard and David T. Perkins, in pursuing land development, formed the Las Posas Land and Water Company in 1888 and leased Rancho Las Posas land to farmers who grazed sheep, and grew barley, wheat, beans, beets and walnuts, among other crops (Triem 1985; Gidney 1917; Storke 1891). The wharf in Hueneme served these farmers in shipping their products. In 1892 Thomas Bard had a survey completed and the town site laid out; its name is said to have come from the Chumash name for scrub oak spring (Triem 1985). Running through the center of the town was Central Avenue (today called Somis Road), and intersecting streets included North Street, and Rice and Bell streets, named after the farming families who owned the nearby land: Peter Rice and Robert Bell (Ventura County Recorder 1892). Sale of town lots carried a stipulation prohibiting the use of alcohol for manufacture, sale or consumption. In 1900 the Southern Pacific Railroad extended a branch line through Somis which was completed through Santa Susanna in 1904, improving local farmers' access to outside markets (Triem 1985).

Somis has remained a small agricultural town with slow growth. Its population was reported as approximately 75 residents before World War II. Shortly after the war ended, subdivision of land created additional town lots, expanding the town size (Ventura County Recorder 1948 and 1953). Somis' population grew to 400 residents by 1992 (McClellan 1992). Although current census data is unavailable for the community, its population is approximated at 3,000 people.

4 Background Research

4.1 Cultural Resources Records Search

On April 3, 2020, South Central Coastal Information Center (SCCIC) staff conducted a records search of the California Historical Resources Information System (CHRIS) at their facility located at California State University, Fullerton. The purpose of the records search was to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the project site and a 0.5-mile radius surrounding it. Rincon also reviewed the NRHP, the CRHR, the California Historical Landmarks list, and Built Environment Resources Directory (BERD) as well as its predecessor the California State Historic Property Data (HPD) File. Review of those records did not identify any cultural resources within the project site or immediate vicinity. Additionally, Rincon reviewed the Archaeological Determination of Eligibility (ADOE) list. Results of the records search can be found in Appendix A of this cultural resources assessment.

The SCCIC records search identified 14 previously conducted cultural resources studies within a 0.5-mile radius of the project site (Table 1). Three studies (VN-00575, VN-00590, and VN-01838) include a portion of the project site and are summarized in greater detail below.

VN-00575

Robert Lopez prepared VN-00575as part of the Proposed Swepi Well Locations and Pipeline Routes in 1988. The study was for a proposed subdivision of a 129-acre parcel. This study included literature review and field reconnaissance of a 17.8-acre parcel and approximately 35 miles of pipeline. Robert Lopez observed three previously recorded cultural resources along portions of the proposed pipeline. None of these resources are within the current project site or 0.5-mile buffer.

VN-00590

Robert Lopez prepared VN-00590, as part of the proposed Off-campus Center Siting Study for the California State University in 1986. This study included background research and a field survey. No cultural resources were identified. Lopez analyzed five locations throughout Ventura County, totaling 1624 total acres. The portion of VN-00590 was negative for cultural resources and no other portions were within 0.5 mile of the current project site

VN-01838

Robert Lopez prepared VN-00345, *An Archaeological Reconnaissance of the Area Involved in Parcel Map Waiver No. 970, Ventura County, California,* in 1999. The study was for a proposed subdivision of a 129-acre parcel. This study included a records search of the Ventura County Archaeological Society and UCLA Archaeological Information Center, literature review, and a field reconnaissance. Robert Lopez observed no resources during any portion of the study

Table 1 Previous Cultural Resources Studies within 0.5-Mile of the Project Site

Report Number	Author(s)	Year	Title	Relationship to Project Site
VN-00126	Clewlow, William C. Jr.	1975	*Archaeological Resources of the Proposed Callegus Creek Project*	Outside
VN-00572	Dames and Moore	1988	*Phase 1 Cultural Resources Survey Fiber Optic Cable Project, Burbank to Santa Barbara, California for Us Sprint Communications Company*	Outside
VN-00575	Lopez, Robert	1988	*An Archaeological Reconnaissance of the Areas Involved in the Proposed Swepi Well Locations and Pipeline Routes Oxnard Plain, Ventura County, California*	**Within**
VN-00590	Lopez, Robert	1986	*An Archaeological Reconnaissance of the Five Area Involved in the Off-campus Center Siting Study for the California State University, Ventura County, California*	**Within**
VN-00722	Lopez, Robert	1988	*A Proposed Fourth Pipeline Route and Alterations to Route Three for the Proposed Swepi Oil Explorations Project on the Oxnard Plain, Ventura County, California*	Outside
VN-01091	Gray, John T. and Chantal Cagle	1992	*Phase I Prehistoric Archaeological Survey Sediment Control Project Arroyo Las Posas Ventura County California*	Outside
VN-01153	Peak and Associates, Inc	1991	*Class 3 Cultural Resource Assessment of the Proposed Carpinteria and Southern Reroutes, Santa Barbara, Ventura, and Los Angeles Counties, California*	Outside
VN-01265	Reed, L.W.	1992	*Consolidated Report: Cultural Resources Studies for the Proposed Pacific Pipeline Project*	Outside
VN-01346	Maki, Mary K.	1995	*Phase I Cultural Resources Survey of 3.6 Acres for the Camarillo Reservoir No.6*	Outside
VN-01838	Lopez, Robert	1999	*An Archaeological Reconnaissance of the Area Involved in Parcel Map Waiver No. 970, Ventura County, California*	**Within**
VN-02504	Arrington, Cindy and Nancy Sikes	2006	*Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and Ii*	Outside
VN-02872	Fortier, Jana	2009	*TEA-21 Rural Roadside Inventory: Native American Consultants and Ethnographic Study for Caltrans District 7, Ventura County*	Outside
VN-02992	Maki, Mary	2008	*Phase I Cultural Resources Investigation of Approximately 6.3 Linear Miles and 9.5 Acres for the Calleguas Municipal Water District's Regional Salinity Management Pipeline - Phase 2 Revision, Ventura County, California*	Outside
VN-03094	Foster, John A.	2002	*Historic Resource Evaluation Report- Mason Avenue At-Grade Crossing and Safety Improvements Project, Los Angeles City, California*	Outside

Source: South Central Coastal Information Center 2020

The SCCIC records search also identified three previously recorded cultural resources within a 0.5-mile radius of the project site (Table 2), none of which are located within or adjacent to the project site.

Table 2 Previously Recorded Cultural Resources within 0.5-Mile of the Project Site

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Status	Relationship to Project Site
P-56-001512	CA-VEN-1512	Prehistoric Site	Midden	2016 (Fatima Clark)	Unknown	Outside
P-56-001513	CA-VEN-1513H	Historic-aged Site	Refuse Dump	2016 (Fatima Clark)	Unknown	Outside
P-56-153144	-	Historic-aged Structure	Asphalt Lined Drainage	2018 (Jennifer Stropes)	Unknown	Outside

Source: South Central Coastal Information Center 2020

4.2 Native American Outreach

Rincon contacted the Native American Heritage Commission (NAHC) on March 11, 2020, to request a search of the Sacred Lands File (SLF) and a contact list of Native Americans culturally affiliated with the project area. A response was received from the NAHC on March 12, 2020, stating the SLF search had been completed with "negative" results. On March 13, 2020, Rincon sent letters to nine Native American contacts in the area to request information on potential cultural resources in the project vicinity that may be impacted by project development. This outreach does not constitute formal Assembly Bill (AB) 52 consultation as required by CEQA. AB 52 consultation is performed between the lead government agency and California Native American tribes who have requested notification of projects in their traditional area. Appendix B provides the results of the outreach effort.

As of the completion of this report, the following responses have been received:

Patrick Tumamait of the Barbareño/ Ventureño Band of Mission Indians responded via telephone on March 16, 2020. Mr. Tumamait expressed knowledge of a Native American site within the project area and recommended CCIC record review. Mr. Tumamait also recommended Native American monitoring during all ground disturbing activities associated with project development.

4.3 Archival Research Methods

Archival research for this study was completed in April and May 2020. Research methodology focused on the review of a variety of primary and secondary source materials relating to the history and development of the area surrounding the project site. Sources included, but were not limited to, historic maps, aerial photographs, local newspaper articles, and written histories of the area. Due to the COVID-19 pandemic, local repositories such as the Museum of Ventura County research library and the Ventura County Assessor's Office were not accessible. In-person research was unable to be conducted in support of this study, and research methods were limited primarily to digitized and readily available online sources. A list of sources and repositories that were consulted to identify pertinent materials is included below.

- *A History of California and an Extended History of Its Southern Coast Counties also Containing Biographies of Well-Known Citizens of the Past and Present* by J.M. Guinn
- *Ventura County: The Garden of the World* by Edwin Earl Hampton
- *History of Santa Barbara and Ventura Counties, California* by Jesse D. Mason, published by Thomson & West
- *History of Santa Barbara, San Luis Obispo and Ventura Counties, California* by C.M. Gidney, Benjamin Brooks and Edwin M. Sheridan
- *Ventura County: Land of Good Fortune* by Judith P. Triem
- *Ventura County Star*
- *Oxnard Press Courier* accessed via Newspapers.com and Newspaperarchive.com
- *Los Angeles Times*
- City/county directories accessed via Ancestry.com
- 1890 Ventura County Great Register, accessed via the Ventura County Genealogical Society
- *Historical Ecology of the lower Santa Clara River, Ventura River, and Oxnard Plain: an analysis of terrestrial, riverine and coastal habitats* by the San Francisco Estuary Institute
- Ventura County Assessor's Office online database
- Records of survey and parcel, plat and tract maps available through County View (Ventura County GIS)
- *Ventura County Historical Landmarks and Points of Interest List*
- Historic aerial photos accessed via University of California, Santa Barbara Map & Imagery Laboratory and NETRonline
- Historic topographic maps accessed via United States Geological Survey
- Other sources as noted in the references list

5 Field Survey

5.1 Methods

Rincon Archaeologist Mary Pfeiffer, BA conducted a pedestrian archaeological field survey of the project site on April 28, 2020. Transect intervals were spaced 10 meters and oriented generally from northwest to southeast. Exposed ground surfaces were examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock [FAR]), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics). Ground disturbances such as burrows and drainages were also visually inspected. Survey accuracy was maintained using a handheld Global Positioning Satellite unit and a georeferenced map of the project site. Site characteristics and survey conditions were documented using field records and a digital camera. Copies of the survey notes and digital photographs are maintained at the Rincon Ventura office.

Rincon Architectural Historian Rachel Perzel, MA conducted a pedestrian survey of the built environment in the project site on April 28, 2020. The survey consisted of a visual inspection of all built environment features over 45 years of age. Buildings and associated features were documented to assess their construction, alterations, overall condition and integrity, and to identify any potential character-defining features. Copies of the field notes and digital photographs from the field surveys are on file with Rincon's Ventura office.

5.2 Results

Built Environment Resources

2789 Somis Road

The archival research and field survey conducted for this study identified a grouping of eight buildings sited in the southeast portion of the project site with an associated address of 2789 Somis Road. Because this grouping contains buildings which are over 45 years of age and are historically associated with one another, it was recorded and evaluated for historical significance as a single resource on California Department of Parks and Recreation 523 Series Forms (DPR forms), which are included in Appendix C. Included below is a summary of the property's existing conditions, developmental history, and eligibility for listing in the NRHP, CRHR and as a Ventura County Landmark.

PROPERTY DESCRIPTION

2789 Somis Road is an agricultural property located adjacent to and west of Somis Road, slightly north of Las Posas Road, in unincorporated Ventura County. Originally part of a much larger ranch, the property is currently 36.36 acres and includes a grouping of eight residential and support buildings at the southeast corner, otherwise surrounded by agricultural fields (Figure 5). Access is provided by an unpaved road (Bell Ranch Road) that branches off Somis Road and enters the property at east. The eight buildings are generously spaced and surrounded with mature plantings,

grassy lawn areas, and accompanying gardens. A single mobile-home is located at the southern portion of the building grouping. There are three agricultural fields located to the south, west, and north of the building grouping respectively.

Residence No. 1

The eastern-most building on the property is a single-story, rectangular-planned residence (Figure 6). The vernacular bungalow-style building sits on a concrete foundation, is clad in wooden lap siding, and exhibits original one-over-one wood sash windows of various sizes throughout. The primary entry to the building, a single, multi-panel wooden door that appears original, is offset on the north elevation. The building is topped with a low-pitched front-gabled roof with moderate overhanging eaves, which are enclosed and supported with three cantilevered exposed beams. Slatted wooden gable vents are present. A satellite dish has been mounted to the roof. Surrounding the residence inside a white picket fence is a lush lawn and mature plantings including palm and orange trees in addition to ornamentals. Although research limitations prevented definitively dating the building, based on visual observation, it appears to date to circa 1920. The building appears minimally altered and is in good condition.

Figure 5 Site Map Identiying Buildings located on Developed Portion of the Subject Property

Imagery provided by Microsoft Bing and its licensors © 2020.

Fig 4 Buildings

Figure 6 Residence No. 1, Primary (North) and West Elevations

Residence No. 2

Sited roughly thirty feet west of Residence No. 1 and separated by a hedge row of mature plantings, Residence No. 2 is a single-story T-planned vernacular building also built in a bungalow style (Figure 7). The building is clad in wooden lap siding and features one-over-one wood sash windows of various size throughout in addition to a single-light picture window on the primary (north) elevation, also wood-framed. Two entrances to the building, single wooden multi-light doors, are accessible via a semicircular concrete patio at the front of the building. The building is topped with a low-pitched intersecting gabled roof with moderate overhanging eaves clad in asphalt shingles. Eaves are enclosed and supported with cantilevered exposed beams. Slatted wooden gable vents are present and the building features two brick and mortar chimneys. Surrounding the building inside a wooden horizontal fence is a lush lawn and mature plantings including palm, avocado and cypress trees in addition to ornamentals. Although research limitations prevented definitively dating the building, based on visual observation, it appears to date to circa 1920. The building appears minimally altered and is in good condition.

Figure 7 Residence No. 2, Primary (North) and East Elevations

Residence No. 3

Sited roughly sixty feet west of Residence No. 2 and set back roughly fifty feet further south on the property, Residence No. 3 is a single-story, L-planned vernacular building built in a bungalow style (Figure 8). The building sits on a raised poured concrete perimeter foundation and is clad in wooden lap siding. Visual observation suggests its footprint was expanded westward following its initial construction, potentially more than one time. The original portion of the building features one-over-one wood sash windows, some which appear in pairs, while the apparent addition features aluminum and vinyl sliders. The building includes several entryways, two of which on the primary, north elevation are contained under gabled overhangs supported by wooden columns; these are accessible via two concrete steps.

In the western portion of the building is a passthrough that leads from the front to the rear of the building. Although contained under a single roof structure, the passthrough functionally divides the building into two individual interior spaces. The building is topped with a low-pitched, intersecting gabled roof clad in asphalt shingles. Exposed rafters and cantilevered decorative exposed beams support the roof. Slatted wooden gable vents are present, and no chimneys appear extant. The building is set back behind and surrounded by a lawn and decorative plantings including rose bushes. Surrounding the building inside a wooden horizontal fence is a lush lawn and mature plantings including palm, avocado and cypress in addition to ornamentals. Although research limitations prevented definitively dating the building, it appears to have been built before 1945. Aside from the aforementioned addition, the building appears minimally altered and is in good condition; it is currently being used as an office.

Figure 8 Residence No. 3 as Viewed from the Northwest

Residence No. 4

Residence No. 4 is sited roughly 40 feet west of Residence No. 3 (Figure 9). The vernacular bungalow-style residence is a single-story and features a rectangular footprint. The building sits on a raised concrete perimeter foundation and is clad in wooden lap siding. It features one-over-one wood sash windows that appear in pairs or groupings of three. Two entrances are included, one offset (to the north) on the east elevation and another offset (to the south) on the west. Both entrances feature a single wooden door accessible via a concrete step and small porch sheltered under a gabled overhang supported with square wooden columns. The door at rear is topped with a single-light wooden transom sash; that on the primary, east elevation is bracketed with windows. The building is topped with a low-pitched, gabled roof clad in asphalt shingles. Exposed rafters and cantilevered exposed beams (decorative) support the roof. Slatted wooden gable vents are present. A brick and mortar chimney featuring a stepped design is exposed on the north elevation. The building is set back behind and surrounded by a lawn and ornamental plantings including beds of lilies. Mature cypress and orange trees surround the building at rear. Although research limitations prevented definitively dating the building, based on visual observation, it appears to have been built before 1945. The building appears minimally altered and is in good condition; it is currently being used as an office.

Figure 9 Residence No. 4, Primary (East) Elevation

Residence No. 5

Sited just northwest of Residence No. 4, Residence No. 5 is a single story residence exhibiting an L-shaped footprint (Figure 10). The vernacular building is clad in wooden board and batten siding and features one-over-one wood sash windows of varying size. The building is topped with an intersecting, medium-pitched gabled roof clad in asphalt shingles with exposed rafters. A partial length concrete porch sheltered under the main roof structure lines the primary, east elevation. The building's primary entry, a single wooden door covered with a wooden screen door, is accessible via the porch. The building includes two secondary entrances on the north and west elevations, both accessible via steps and a concrete stoop. The door on the north elevation appears non-original while all other doors and windows appear original. The building is surrounded with mature vegetation, including cypress trees and rose bushes, to its south and west. Although research limitations prevented definitively dating the building, based on visual observation, it appears to predate the Residence Nos. 1 and 2 and is estimated to have been built earlier in the twentieth century. It appears minimally altered and is in good condition.

Figure 10 Residence No. 5, Primary (East) Elevation

Barn No. 1

Barn No. 1 is a single-story, rectangular-planned utilitarian building sited adjacent to the west of Residence No. 4 (Figure 11). The building is topped with a gabled roof with moderate overhangs and exposed rafters clad in rolled asphalt. It is clad in wooden lap siding and exhibits no window openings. Original barn doors on the north and south elevations have been removed and their large openings infilled with a combination of board and batten siding and solid, contemporary doors (two on each elevation). A small shed-like addition has been added to the building's northwest corner to provide covered storage. Compared with property residences, the building is surrounded with minimal vegetation. Although research limitations prevented definitively dating the building it appears to date to have been built before 1945. It appears relatively intact and in fair condition; it is currently used for storage.

Figure 11 Barn No. 1, South Elevation

Barn No. 2

Located roughly 25 feet south of Barn No. 1, Barn No. 2 is a monitor barn with an apparent addition on the north end, creating roughly a L-shaped plan (Figure 12). It is clad in corrugated vertical metal paneling. The building is topped with a gabled clerestory roof clad in corrugated metal paneling consistent with siding material. It exhibits limited window openings; those extant throughout are relatively small and include various types of metal window sash. Large door openings are featured on the south and west elevations of the building. An original sliding metal-clad barn door remains extant on the south elevation door opening; the door on the west elevation appears to be non-original. Compared with the property's residences, the building is surrounded with minimal vegetation. Although research limitations prevented definitively dating the building it appears to date to have been built before 1945. The building appears relatively intact and in fair condition; it is currently used as a workshop.

Figure 12 Barn No. 2, East and South Elevations

Barn No. 3

Barn No. 3 is located roughly 20 feet south of and sited trending west-east to face Barn No. 2 (Figure 13). The utilitarian building is a single-story and features a rectangular footprint. It is clad in vertical wooden siding (some areas are board-and-batten), painted red. The building is topped with an exaggerated shed roof clad in corrugated metal paneling with minimal overhang and exposed rafters. Minimal window openings are included but the primary (north) elevation is lined with large openings covered with wooden sliding barn doors that appear original. It is surrounded with minimal vegetation although two large eucalyptus trees are extant to its immediate rear (south). Although research limitations prevented definitively dating the building it appears to date to have been built before 1945. The building appears minimally altered and is in fair condition; it is currently used for storage.

Figure 13 Barn No. 3, Primary (North) and West Elevations

Property History

The property at 2789 Somis Road was once part of a much larger ranch established in the 19th century. Known as Bell Ranch, it was initially developed in the 1870s by early and notable Ventura County settlers Peter Rice and Robert Bell, and subsequently operated by Thomas Bard's Berylwood Investment Company beginning in the early 20th century. As discussed further below, both these individuals and entities made significant contributions to the early agricultural development in Ventura County.

Peter Rice was born in Pennsylvania in 1818 and moved to Ohio with his parents at the age of five (Figure 14). As an adult he worked in the purchase and sale of cattle, and in the fur business, at which he was very successful. Rice bought a farm in Richland County, Ohio and married Isabella Turbutt. In 1849 they set out for California and initially settled in the northern part of the state. Rice was involved in mining, lumber, stagecoach lines, and the building of bridges and turnpikes. Drawn by the discovery of silver, he went to Virginia City, Nevada and successfully engaged in the development of sawmills and ditches. In 1871 Rice made a trip to Ventura County where he invested in a 1,150-acre ranch on the Rancho Las Posas and eventually relocated his family to the ranch (Mason 1883).

Robert Bell also arrived in Ventura County in 1871 by way of Ohio and northern California (Figure 14). Born in Richland County Ohio in 1842, he initially settled in Yuba County where he worked as a ranchman for several seasons. He relocated to Ventura County in 1871, purchasing 300 acres of land in the Somis area and improving the land to a tillable condition and grew beans, beets and hay. In 1877 he married Peter Rice's daughter, Rebecca Lucretia Rice, and would subsequently have three children, Polly, Bertha and Walter (Guinn 1907).

Figure 14 Peter Rice and Robert Bell (Sources: Mason 1883 and Guinn 1907)

Soon after their arrival in Ventura County, Peter Rice and Robert Bell established an agricultural partnership known as Rice & Bell in the mid-1870s. By the end of the decade, Rice & Bell were invested in a farm, which appears to have included the current project site, covering 1,130 acres, with up to 3,000 acres also cultivated in adjoining lands (Hampton 2002; Mason 1883). Records from the late 1870s describe Rice & Bell's ranch as having "more the appearance of a village than the homes of quiet farmers; these enterprising and well-known gentlemen farm on so large a scale, that to give anything like a description of their ranch would require more space than we can give at the present" (Hampton 2002). Although it is unclear if any of these buildings remain within the current project site, Rice & Bell's ranch was described as containing an adobe ranch house, a barn, machinery storehouse, horse stables, a blacksmith shop, four granaries, cribs, and a yard and orange trees. The ranch produced barley, wheat and corn, and was used for hog-raising. In the 1890s, the Rice & Bell ranch was also reported to be growing beans and walnuts. Peter Rice died in 1890, but Bell and his wife Rebecca continued to maintain the farming business into the following decades (Hampton 2002; *Los Angeles Times* 1997). The Bell's 42-year tenure on the ranch established the property's identity in the community through the following decades as the Bell Ranch.

Around 1920, Robert and Rebecca Lucretia Bell appear to have sold the ranch to the Berylwood Investment Company (*Oxnard Daily Courier* 1923; *Los Angeles Times* 1997). The Berylwood Investment Company was founded in 1911 by Thomas R. Bard, a prominent politician, businessman, and key figure in the development of Ventura County. Soon after its formation and under the direction of the Bard family, Berylwood Investment Company began improvements to properties in the Las Posas and Simi valleys. Thomas' son Richard Bard was appointed general manager in 1917 and various members of the Bard family would continue to oversee leadership roles in the company into the following decades. By the 1950s the company's holdings included nearly 2,000 acres of orchards, over 1,800 acres of beans and other irrigated row crops, and over 3,500 acres of open land and pasture, part of which was planted to barley and hay. This acreage was located at three ranches including the Bell Ranch, Hondo Ranch and Simi Ranch. The company's headquarters were once located in downtown Hueneme but in 1950 moved to a hilltop overlooking Somis, and their original office building became Port Hueneme City Hall (*Oxnard Press Courier* 1957).

Following the transfer of management to the Berylwood Investment Company circa 1920, the ranch became known as the B.I. Bell Ranch, the "B.I." a reference to the ranch's new management (Robertson, n.d.). Although the extant buildings on the property could not be definitively dated due to research limitations, Residence Nos. 1, 2 and 5 were constructed prior to 1927 as demonstrated by an aerial photograph from that year. Residence No. 5 may predate the other buildings (Figure 15). However, it is unclear whether Residences Nos. 1 and 2 were constructed during the property's association with Rice & Bell or the Berylwood Investment Company. The additional extant buildings described above appear to date to the post 1940s per historic aerial photographs (UCSB Map & Imagery Lab, various). Rebecca Lucretia Bell died in 1928 and Robert Bell died in 1930; however, it is unclear where they were living at this time (R.L. Polk & Co. 1956; Hampton 2002; Find a Grave 2020).

In the 1940s the majority of the Bell Ranch (which included the subject property and surrounding lands) was planted with orchard rows (UCSB Map & Imagery Lab, various). By the 1950s additional orchards had been planted closer to the hill to the north, and the land south of the ranch complex was planted with lower-scale row crops (UCSB Map & Imagery Lab 1959). It appears subdivision of the ranch land adjacent to Las Posas Road began by the 1960s and continued through the 1970s (Figure 16). By the 1960s some of the former orchard land fronting Las Posas Road (slightly west of the subject property) had been developed with various uses that appear to include office, commercial and industrial (NETRonline 1967).

Figure 15 1927 Aerial Photograph Depicting Building Complex within Project Site

Figure 16 1964 Aerial Photograph Depicting Building Complex within Project Site

The company Kaiser Aetna purchased the Bell Ranch property from Berylwood Investment Company in 1969 (*Oxnard Press Courier* 1971a). Kaiser Aetna had an Agricultural Services division which provided management services for agricultural properties and conducted real estate development. During its ownership of the Bell Ranch, the company replanted orchards to replace poor performing and diseased trees, installed new irrigation, and planted new citrus and avocado acreage. The Bell Ranch served as headquarters for Kaiser Aetna's Agricultural Services and its Agricultural Operations Division (*Oxnard Press Courier* 1971a and 1977).

Online Ventura County Recorder and Assessor records indicate that by 1970, Kaiser Aetna began surveying the property for subdivision. The subject property was included in a tract called the Peter Rice Tract, and the T.R. Bard Tract was mapped adjacent to the north (Ventura County 1970. Record of Survey, 37RS64). Another tract map made in 1974 created several parcels, of which the 112.9-acre Parcel 1 included the subject property (Parcel Map 16PM 98).

In the early 1970s Kaiser Aetna formulated a 10,000-acre master planned, multi-use development for a portion of the property. At the time, Bell Ranch was described as encompassing 1,200 acres (*Oxnard Press Courier* 1971b). However, the master plan was never fully realized and newspaper accounts state the development area was reduced in size (*Oxnard Press Courier* 1975). The company sold 2+ acre homesites planted with avocado trees near Los Angeles Avenue, and developed properties fronting Las Posas Avenue (which today include a medical building and a school) (*Oxnard Press Courier* 1971a; NETRonline 1967, 1969 and 1978).

In 1977, a new corporation formed by five former employees of Kaiser Aetna and called Ag Land Services Inc. purchased Kaiser Aetna's Agricultural Services Division (*Oxnard Press Courier* 1977). Located on the subject property at 2789 Somis Road, it appears Ag Land Services Inc. has remained on the property through present day. The company is involved in agricultural consulting and management of numerous ranches in the Somis, Camarillo, Moorpark and Ventura areas (Citrus Pest & Disease Prevention Program 2020).

Since this time, the larger ranch property continued to be further subdivided and developed with new uses. By 1978 St. John's Pleasant Valley Hospital was developed slightly north of Las Posas Road (*Oxnard Press Courier* 1971a; NETRonline 1967, 1969 and 1978). In 1979 the Peter Rice Tract was subdivided leading to the development of a police station, medical offices, and commercial businesses (NETRonline 1989; Google Earth).

The Oxnard Union High School District developed a new high school on a portion of the Bell Ranch property which opened in 2015. Located slightly west of the subject property, the new school was named "Rancho Campana", which translates to "Bell Ranch" in Spanish, in honor of the family who once owned the land (Leung 2013; Oxnard Union High School District 2017 and 2020). Records on file with the Ventura County Assessor and Recorder show in 2019 a 40.22-acre parcel was split into two parcels which included the subject property of 36.36 acres and a smaller 4.64-acre parcel that is now owned by the City of Camarillo.

Historic Evaluation

Based on information available at the time of this study, the subject property appears to possess significant associations with the early agricultural history of Ventura County and may be presumed eligible for listing in the CRHR and as a Ventura County Landmark. The exact construction dates of the buildings on the ranch property were unable to be definitively determined due to in-person research constraints resulting from COVID-19 considerations. However, available information indicates the ranch was historically associated with two notable nineteenth century pioneering

entities which were influential in Ventura County's agricultural history, Rice & Bell ranch and the Bard family's Berylwood Investment Company. Residence Nos. 1 and 2 appear to have been built circa 1920, around the time the Berylwood Investment Company assumed ownership of the ranch. Residence No. 5 appears to have been built earlier, but further research would be necessary to substantiate. It is unclear what if any extant buildings on the site are associated with the Rice & Bell period of the property. However, the Berylwood Investment Company maintained a noteworthy presence in Ventura County's growth during and after this period, supported in part by the subject property. Further, the buildings on the property are largely intact and representative of early twentieth century agricultural practices within Ventura County and embody the distinctive characteristics of this period of architectural history. For these reasons the subject property appears to be eligible under CRHR Criteria 1 and 3, and Ventura County Landmark Criteria 1, 2, and 5. The original Bell Ranch has been continually subdivided and a number of buildings and structures have been removed and replaced; however, the ranch still retains multiple buildings from the early twentieth century and maintains its historic character such that it retains sufficient integrity to convey its significant associations.

Although the ranch property is associated with Peter Rice and Robert Bell, their association with the extant buildings cannot be definitively documented at this time. Further, while Thomas R. Bard and other members of the Bard family who founded and led the Berylwood Investment Company have are associated with the property, this association is tangential, and the subject property is not directly illustrative of any significance these individuals may have. For this reason, the subject property does not appear to be eligible for state or local designation under CRHR Criterion 2 or Ventura County Landmark Criterion 3. Lastly, the CHRIS records search results and archaeological field survey do not indicate the subject property is eligible for state or local designation under CRHR Criterion 4 or Ventura County Landmark Criterion 4.

Archaeological Resources

Overall ground visibility was less than five percent with 100 percent exposure. Exposed soil was a light to medium brown very fine-grained well drained silty sand with igneous pebbles intermixed (Figure 15). Vegetation consisted primarily of agricultural crops including strawberries, celery and cabbage and seasonal non-native grasses. The cabbage and celery fields were not able to be surveyed due to zero ground visibility within those areas of the project site (Figure 16, Figure 17). Three heavily calcified shell fragments were observed along an unnamed dirt access road within the southern portion of the project site (Figure 18, Figure 19); no cultural materials or soil discoloration were observed in association with the shell fragments. Along the eastern project site boundary, a north to south trending access road is situated adjacent to a historic-period culvert (Figure 20). Clam shell, modern refuse, historic-period manganese dioxide decolorized glass fragments (amethyst glass, ca. 1870-1920), ceramic sherds and undiagnostic glass fragments were observed on either side of the culvert (Figure 21, Figure 22 and Figure 23). Because the refuse was intermixed with modern refuse, it was not recorded as an archaeological site.

Figure 17 Exposed Soil Within Project Site

Figure 18 Cabbage Field Within Project Site, Facing North/Northwest

Figure 19 Celery Field Within Project Site, Facing Northeast

Figure 20 Shell Fragment Within Southern Portion of Project Site

Figure 21 Overview of Shell Fragments Along Access Road, Facing East/Northeast

Figure 22 Historic-Period Culvert, Facing North

Figure 23 Shell Located Along Historic-Period Culvert

Figure 24 Amethyst Glass Fragment Located Along Historic-Period Culvert

Figure 25 Ceramic Fragment Located Along Historic-Period Culvert

6 Findings and Conclusions

As detailed above, available information suggests the agricultural property at 2789 Somis Road is eligible for listing in the CRHR and as a Ventura County Landmark; it therefore is presumed to be a historical resource as part of the current project's CEQA compliance. The proposed project does not involve any the demolition or direct alteration of any of the buildings on the project site. Rather, the project involves the subdivision of the existing property into four parcels, three of which would include and the construction of an adjacent residential development and an on-site CWWTF. The remaining parcel would retain the existing residential and agricultural buildings and remain in agricultural production. The new development would include a landscaping buffer to separate it from the existing buildings.

Under Section 15064.5(b) of the CEQA Guidelines, a significant impact would occur to historical resources if the physical characteristics of the resource which convey its historical significance and justify its eligibility for inclusion in the CRHR. Although the project would result in the subdivision of the subject property, the historical boundaries of the ranch at 2789 Somis Road were once much larger and the ranch was continually subdivided in the post-World War II era. Further, the property would continue to operate as an agricultural property and retain its buildings and a portion of agricultural land within its boundaries. The proposed residential development will change aspects of the property's surroundings; however, its setting has already largely changed since the historical period due to ongoing subdivision and new construction. The proposed development is consistent with these non-historical elements and would not further diminish the setting. Further, the new development would be further buffered and distinguished from the historic buildings and property through landscaping. Therefore, regarding built-environment resources, Rincon recommends a finding of a ***less than significant impact to historical resources*** under CEQA.

The cultural resources records search identified three previously recorded cultural resources within a 0.5-mile radius of the project site, none of which are located within the project site. Of the recorded resources in the records search radius, one is a prehistoric archaeological resource in close proximity to the current project site. The majority of the project site has been previously disturbed from grading, building development and agricultural activities. The pedestrian field survey identified three isolated shell fragments within the southern portion of the project site and intermixed modern and historic-era refuse along the eastern boundary of the project site. The isolated shell fragments were not found in association with any other cultural materials or soil discoloration and are therefore not considered cultural resources here. Based on the size and nature of the historic and modern refuse, the deposit is likely related to episodic refuse dumping that occurred during the construction and maintenance of the culvert. Episodic refuse dumping is a common pattern observed in rural communities before the health and safety laws of the 1960s and 1970s (Sullivan and Griffith 2005). The refuse was not formally recorded as a resource due to heavy modern disturbances and the undiagnostic fragmented nature of the find. Native American outreach identified the project site is sensitive for archaeological resources and Patrick Tumamait of the Barbareño/Ventureño Band of Mission Indians recommended Native American monitoring during all ground disturbance associated with the project.

Based on the proximity of the project to a freshwater source, Arroyo Las Posas, the presence of nearby archaeological resources, and the results of Native American outreach, the area is considered sensitive for archaeological resources. Rincon therefore recommends archaeological and Native American monitoring during project ground disturbance. These recommended measures are presented below. With adherence to these recommendations, Rincon recommends a finding of ***less than significant impact with mitigation to archaeological resources*** under CEQA**.** The project is also required to adhere to regulations regarding the discovery of human remains, detailed below.

6.1 Archaeological and Native American Monitoring

Rincon recommends archaeological and Native American monitoring of initial project-related ground disturbing activities. Archaeological monitoring should be performed under the direction of the qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (NPS 1983). The qualified archaeologist, in consultation with the County of Ventura and the Native American monitor, may recommend the reduction or termination of monitoring depending upon observed conditions (e.g., no resources encountered within the first 50 percent of ground disturbance). If archaeological resources are encountered during ground-disturbing activities, work within a minimum of 50 feet of the find must halt and the find evaluated for CRHR eligibility. Should an unanticipated resource be found as CRHR eligible and avoidance is infeasible, additional analysis (e.g., testing) may be necessary to determine if project impacts would be significant.

6.2 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area should be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (NPS 1983) should be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for the NRHP/CRHR eligibility. If the discovery proves to be significant under the NHPA and/or CEQA and cannot be avoided by the project, additional work such as data recovery excavation and Native American consultation may be warranted to mitigate any significant impacts to historical resources.

6.3 Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground-disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD), who has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours of being granted site access, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance.

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_____. 1920 "Thomas R. Bard and Ventura County's Sheep Industry, 1870-1884", Southern California Quarterly, vol. 11, part 3, 1920. Historical Society of Southern California, Los Angeles. Accessed March 16, 2020 on Google Books.

Workman, Boyle

_____. 1935 *The City that Grew*. Los Angeles, California: Southland Publication Company.

Appendix A

Records Search Results

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
VN-00126		1975	Clewlow, William C. Jr.	Archaeological Resources of the Proposed Callegus Creek Project		56-000071, 56-000200, 56-000213, 56-000214, 56-000215, 56-000216, 56-000217, 56-000218, 56-000219, 56-000242
VN-00572		1988	Dames and Moore	Phase 1 Cultural Resources Survey Fiber Optic Cable Project, Burbank to Santa Barbara, California for Us Sprint Communications Company	Dames & Moore	56-000027, 56-000196, 56-000202, 56-000240, 56-000241, 56-000341, 56-000342, 56-000550, 56-000643, 56-000644, 56-000655, 56-000729, 56-000789, 56-000895, 56-000896, 56-000916, 56-000917, 56-000918
VN-00575		1988	Lopez, Robert	An Archaeological Reconnaissance of the Areas Involved in the Proposed Swepi Well Locations and Pipeline Routes Oxnard Plain, Ventura County, California	Robert Lopez, Archaeological Consultant	56-000631, 56-000665, 56-000666
VN-00590		1986	Lopez, Robert	An Archaeological Reconnaissance of the Five Area Involved in the Off-campus Center Siting Study for the California State Uinversity, Ventura County, California		56-000665
VN-00722		1988	Lopez, Robert	A Proposed Fourth Pipeline Route and Alterations to Route Three for the Proposed Swepi Oil Explorations Project on the Oxnard Plain, Ventura County, California	Robert Lopez, Archaeological Consultant	
VN-01091		1992	Gray, John T. and Chantal Cagle	Phase I Prehistoric Archaeological Survey Sediment Control Project Arroyo Las Posas Ventura County California	Dames & Moore	56-000631, 56-000661
VN-01153		1991	Peak and Associates, Inc.	Class 3 Cultural Resource Assessment of the Proposed Carpinteria and Southern Reroutes, Santa Barbara, Ventura, and Los Angeles Counties, California	Peak & Associates	56-001089
VN-01265		1992	Reed, L.W.	Consolidated Report: Cultural Resources Studies for the Proposed Pacific Pipeline Project	Peak and Associates	19-000007, 19-000021, 19-000034, 19-000089, 19-000251, 19-000357, 19-000385, 19-000389, 19-000390, 19-000407, 19-000409, 19-000668, 19-000781, 19-000830, 19-000887, 19-000901, 19-000963, 19-001097, 19-001112, 19-001124, 19-001575, 19-001620
VN-01346		1995	Maki, Mary K.	Phase I Cultural Resources Survey of 3.6 Acres for the Camarillo Reservoir No.6	Fugro West, Inc.	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
VN-01838		1999	Lopez, Robert	An Archaeological Reconnaissance of the Area Involved in Parcel Map Waiver No. 970, Ventura County, California	Robert Lopez, Archaeological Consultant	
VN-02504		2006	Arrington, Cindy and Nancy Sikes	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and Ii	SWCA Environmental Consultants, Inc.	
VN-02872		2009	Fortier, Jana	TEA-21 Rural Roadside Inventory: Native American Consultants and Ethnographic Study for Caltrans District 7, Ventura County	ICF Jones & Stokes	
VN-02992		2008	Maki, Mary	Phase I Cultural Resources Investigation of Approximately 6.3 Linear Miles and 9.5 Acres for the Calleguas Municipal Water District's Regional Salinity Management Pipeline - Phase 2 Revision, Ventura County, California		
VN-03094		2002	Foster, John A.	Historic Resource Evaluation Report- Mason Avenue At-Grade Crossing and Safety Improvements Project, Los Angeles City, California	Greenwood and Associates	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-56-001512	CA-VEN-001512	Resource Name - RCHS-Site-1	Site	Prehistoric	AP02; AP15	2016 (Fatima Clark, ESA PCR)	
P-56-001513	CA-VEN-001513H	Resource Name - RCHS-Site-2	Site	Historic	AH04	2016 (Fatima Clark, ESA PCR)	
P-56-153144		Resource Name - St. John's Drain	Object	Protohistoric	AH07	2018 (Jennifer Stropes, BFSA)	

Appendix B

Native American Outreach

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd, Suite 100
Sacramento, CA 95814
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Somis Ranch Farmworker Housing Complex Project

County: Ventura

USGS Quadrangle Name: Camarillo, Moorpark, Newbury Park, and Santa Paula Quadrangle

Township: 02N Range: 20W Section(s): 17-20

Company/Firm/Agency: Rincon Consultants, Inc.

Contact Person: Elaine Foster

Street Address: 449 15th St. #303

City: Oakland, CA Zip: 94612

Phone: 213-788-4842 x 3016

Email: efoster@rinconconsultants.com

Project Description:

The proposed housing complex would be constructed on approximately 18.5 acres of the project site. The project site would be accessible from two driveways off Somis Road. The proposed housing community would contain 360 dwelling units, along with amenities such as community center rooms, play fields, tot lots/playgrounds, and basketball courts. The proposed project would consist of 100 percent affordable housing units, and would be a mix of one-, two-, and three-bedroom units. Designed with a "Spanish Colonial" architectural style, the housing development would be up to three stories in height, with a maximum height of 35 feet. The project would also include 566 parking spaces and 379 bicycle parking spaces.

In addition, the project would construct an on-site community wastewater treatment facility (CWWTF), which would service the proposed housing community and produce recycled water for beneficial use as

agricultural irrigation water. Excess recycled water and treated wastewater effluent not meeting recycled water quality standards would be dispersed through a series of underground seepage pits on the westerly side of the project site. Approximately 281,000 square feet of the project site would be landscaped, including a landscaped buffer surrounding the development. Landscape design would include drought-tolerant species and smart irrigation controls for water efficiency. Two stormwater detention basins would be constructed on the project site to capture stormwater runoff from the development.

The project would be implemented in three phases. Phase 1 would consist of 100 units and the CWWTF, Phase 2 would consist of 100 units and an easement to the CWWTF, and Phase 3 would consist of 160 units and an easement to the CWWTF. Construction activities would require approximately 1,500 cubic yards (cy) of cut soil and 35,100 cy of fill soil. Approximately 33,600 cy of soil would be imported. There would be no soil export. Construction equipment would be staged on the project site. The existing residences and ancillary agricultural buildings on the project site would not be demolished or relocated.

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

March 12, 2020

Elaine Foster, Archaeologist
Rincon Consultants, Inc.

Via Email to: efoster@rinconconsultants.com

Re: Somis Ranch Farmworker Housing Complex Project, Ventura County

Dear Ms. Foster:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Sarah.Fonseca@nahc.ca.gov.

Sincerely,

Sarah Fonseca
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Ventura County
3/12/2020

Barbareno/Ventureno Band of Mission Indians
Julie Tumamait-Stenslie, Chairperson
365 North Poli Ave — Chumash
Ojai, CA, 93023
Phone: (805) 646 - 6214
jtumamait@hotmail.com

Barbareno/ Ventureno Band of Mission Indians
Patrick Tumamait,
992 El Camino Corto — Chumash
Ojai, CA, 93023
Phone: (805) 216 - 1253

Barbareno/ Ventureno Band of Mission Indians
Raudel Banuelos,
331 Mira Flores — Chumash
Camarillo, CA, 93012
Phone: (805) 427 - 0015

Barbareno/ Ventureno Band of Mission Indians
Eleanor Arrellanes,
P. O. Box 5687 — Chumash
Ventura, CA, 93005
Phone: (805) 701 - 3246

Chumash Council of Bakersfield
Julio Quair, Chairperson
729 Texas Street — Chumash
Bakersfield, CA, 93307
Phone: (661) 322 - 0121
chumashtribe@sbcglobal.net

Coastal Band of the Chumash Nation
Gino Altamirano, Chairperson
P. O. Box 4464 — Chumash
Santa Barbara, CA, 93140
cbcn.consultation@gmail.com

Northern Chumash Tribal Council
Fred Collins, Spokesperson
P.O. Box 6533 — Chumash
Los Osos, CA, 93412
Phone: (805) 801 - 0347
fcollins@northernchumash.org

San Luis Obispo County Chumash Council
Mark Vigil, Chief
1030 Ritchie Road — Chumash
Grover Beach, CA, 93433
Phone: (805) 481 - 2461
Fax: (805) 474-4729

Santa Ynez Band of Chumash Indians
Kenneth Kahn, Chairperson
P.O. Box 517 — Chumash
Santa Ynez, CA, 93460
Phone: (805) 688 - 7997
Fax: (805) 686-9578
kkahn@santaynezchumash.org

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Somis Ranch Farmworker Housing Complex Project, Ventura County.

Native Americans Consulted

Local Group/Government Contact	Rincon Coordination Efforts	Response to Coordination Efforts
Barbareno/Ventureno Band of Mission Indians Julie Tumamait-Stenslie, Chairperson 365 North Poli Ave Ojai, CA, 93023 Phone: (805) 646 - 6214 jtumamait@hotmail.com	Letter: 3/13/2020	
Barbareno/ Ventureno Band of Mission Indians Patrick Tumamait, 992 El Camino Corto Ojai, CA, 93023 Phone: (805) 216 - 1253	Letter: 3/13/2020 Message Received: 3/16/2020 Follow up call: 4/21/2020	Message was left with knowledge of a site within the farm field, off the highway. Mentioned the CCIC would have information even if the NAHC does not. Previously monitored construction of a fiberoptic line in Somis township. Recommends Native American Monitoring and would like to be involved in the project. Follow up call confirmed that the likely site is CA-VEN-1512 in Rancho Campana High School, consisting of shell and some tools. No other comments were provided.
Barbareno/ Ventureno Band of Mission Indians Raudel Banuelos, 331 Mira Flores Camarillo, CA, 93012 Phone: (805) 427 - 0015	Letter: 3/13/2020	

Local Group/Government Contact	Rincon Coordination Efforts	Response to Coordination Efforts
Barbareno/ Ventureno Band of Mission Indians Eleanor Arrellanes, P. O. Box 5687 Ventura, CA, 93005 Phone: (805) 701 - 3246	Letter: 3/13/2020	
Chumash Council of Bakersfield Julio Quair, Chairperson 729 Texas Street Bakersfield, CA, 93307 Phone: (661) 322 - 0121 chumashtribe@sbcglobal.net	Letter: 3/13/2020	
Coastal Band of the Chumash Nation Gino Altamirano, Chairperson P. O. Box 4464 Santa Barbara, CA, 93140 cbcn.consultation@gmail.com	Letter: 3/13/2020	Letter was returned to the Ventura office as undeliverable. A copy of the letter was sent via email 4/29/2020
Northern Chumash Tribal Council Fred Collins, Spokesperson P.O. Box 6533 Los Osos, CA, 93412 Phone: (805) 801 - 0347 fcollins@northernchumash.org	Letter: 3/13/2020	
San Luis Obispo County Chumash Council Mark Vigil, Chief 1030 Ritchie Road Grover Beach, CA, 93433 Phone: (805) 481 - 2461 Fax: (805) 474-4729	Letter: 3/13/2020	
Santa Ynez Band of Chumash Indians Kenneth Kahn, Chairperson P.O. Box 517 Santa Ynez, CA, 93460 Phone: (805) 688 - 7997 Fax: (805) 686-9578 kkahn@santaynezchumash.org	Letter: 3/13/2020	

Rincon Consultants, Inc.

449 15th Street, Suite 303
Oakland, California 94612

510 834 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

March 13, 2020

Barbareno/Ventureno Band of Mission Indians
Julie Tumamait-Stenslie, Chairperson
365 North Poli Avenue
Ojai, CA 93023

Subject: Cultural Resources Report for the Somis Ranch Farmworker Housing Project, Ventura County, California

Dear Chairperson Tumamait-Stenslie,

Rincon Consultants, Inc. (Rincon) has been retained by the Ventura County Resource Management Agency to conduct an Environmental Impact Report at 2789 Somis Road, located north of the City of Camarillo. The proposed project involves the construction of 360 dwelling units with a maximum height of 35 feet along with amenities such as community center rooms, play fields, tot lots/playgrounds, and basketball courts. The project also proposes to construct a community wastewater treatment facility and landscaping of 281,000 square feet of the project site. This project is subject to the California Environmental Quality Act (CEQA) and the Ventura County Resource Management Agency, Planning Division is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Concord.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with "negative results". However, we are aware that the results of this search do not negate the possibility of cultural resources existing within the project site.

If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Elaine Foster
Archaeologist

Enclosed: Project Location Map

Rincon Consultants, Inc.

449 15th Street, Suite 303
Oakland, California 94612

510 834 4455 OFFICE AND FAX

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March 13, 2020

Barbareno-Ventureno Band of Mission Indians
Patrick Tumamait, Chairperson
992 El Camino Corto
Ojai, CA 93023

Subject: Cultural Resources Report for the Somis Ranch Farmworker Housing Project, Ventura County, California

Dear Mr.Tumamait,

Rincon Consultants, Inc. (Rincon) has been retained by the Ventura County Resource Management Agency to conduct an Environmental Impact Report at 2789 Somis Road, located north of the City of Camarillo. The proposed project involves the construction of 360 dwelling units with a maximum height of 35 feet along with amenities such as community center rooms, play fields, tot lots/playgrounds, and basketball courts. The project also proposes to construct a community wastewater treatment facility and landscaping of 281,000 square feet of the project site. This project is subject to the California Environmental Quality Act (CEQA) and the Ventura County Resource Management Agency, Planning Division is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Concord.

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www.rinconconsultants.com

March 13, 2020

Barbareno/Ventureno Band of Mission Indians
Raudel Banuelos
331 Mira Flores
Camarillo, CA 93012

Subject: Cultural Resources Report for the Somis Ranch Farmworker Housing Project, Ventura County, California

Dear Mr. Banuelos,

Rincon Consultants, Inc. (Rincon) has been retained by the Ventura County Resource Management Agency to conduct an Environmental Impact Report at 2789 Somis Road, located north of the City of Camarillo. The proposed project involves the construction of 360 dwelling units with a maximum height of 35 feet along with amenities such as community center rooms, play fields, tot lots/playgrounds, and basketball courts. The project also proposes to construct a community wastewater treatment facility and landscaping of 281,000 square feet of the project site. This project is subject to the California Environmental Quality Act (CEQA) and the Ventura County Resource Management Agency, Planning Division is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Concord.

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March 13, 2020

Barbareno/Ventureno Band of Mission Indians
Eleanor Arrellanes
PO Box 5687
Ventura, CA 93005

Subject: Cultural Resources Report for the Somis Ranch Farmworker Housing Project, Ventura County, California

Dear Ms. Arrellanes,

Rincon Consultants, Inc. (Rincon) has been retained by the Ventura County Resource Management Agency to conduct an Environmental Impact Report at 2789 Somis Road, located north of the City of Camarillo. The proposed project involves the construction of 360 dwelling units with a maximum height of 35 feet along with amenities such as community center rooms, play fields, tot lots/playgrounds, and basketball courts. The project also proposes to construct a community wastewater treatment facility and landscaping of 281,000 square feet of the project site. This project is subject to the California Environmental Quality Act (CEQA) and the Ventura County Resource Management Agency, Planning Division is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Concord.

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Archaeologist

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Oakland, California 94612

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info@rinconconsultants.com
www.rinconconsultants.com

March 13, 2020

Chumash Council of Bakersfield
Julio Quair, Chairperson
729 Texas Street
Bakersfield, CA 93307

Subject: Cultural Resources Report for the Somis Ranch Farmworker Housing Project, Ventura County, California

Dear Chairperson Quair,

Rincon Consultants, Inc. (Rincon) has been retained by the Ventura County Resource Management Agency to conduct an Environmental Impact Report at 2789 Somis Road, located north of the City of Camarillo. The proposed project involves the construction of 360 dwelling units with a maximum height of 35 feet along with amenities such as community center rooms, play fields, tot lots/playgrounds, and basketball courts. The project also proposes to construct a community wastewater treatment facility and landscaping of 281,000 square feet of the project site. This project is subject to the California Environmental Quality Act (CEQA) and the Ventura County Resource Management Agency, Planning Division is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Concord.

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March 13, 2020

Coastal Band of the Chumash Nation
Gino Altamirano, Chairperson
PO Box 4464
Santa Barbara, CA 93140

Subject: Cultural Resources Report for the Somis Ranch Farmworker Housing Project, Ventura County, California

Dear Chairperson Altamirano,

Rincon Consultants, Inc. (Rincon) has been retained by the Ventura County Resource Management Agency to conduct an Environmental Impact Report at 2789 Somis Road, located north of the City of Camarillo. The proposed project involves the construction of 360 dwelling units with a maximum height of 35 feet along with amenities such as community center rooms, play fields, tot lots/playgrounds, and basketball courts. The project also proposes to construct a community wastewater treatment facility and landscaping of 281,000 square feet of the project site. This project is subject to the California Environmental Quality Act (CEQA) and the Ventura County Resource Management Agency, Planning Division is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Concord.

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March 13, 2020

Northern Chumash Tribal Council
Fred Collins, Spokesperson
PO Box 6533
Los Osos, CA 93412

Subject: Cultural Resources Report for the Somis Ranch Farmworker Housing Project, Ventura County, California

Dear Spokesperson Collins,

Rincon Consultants, Inc. (Rincon) has been retained by the Ventura County Resource Management Agency to conduct an Environmental Impact Report at 2789 Somis Road, located north of the City of Camarillo. The proposed project involves the construction of 360 dwelling units with a maximum height of 35 feet along with amenities such as community center rooms, play fields, tot lots/playgrounds, and basketball courts. The project also proposes to construct a community wastewater treatment facility and landscaping of 281,000 square feet of the project site. This project is subject to the California Environmental Quality Act (CEQA) and the Ventura County Resource Management Agency, Planning Division is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Concord.

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Oakland, California 94612

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March 13, 2020

San Luis Obispo County Chumash Council
Mark Vigil, Chief
1030 Ritchie Road
Grover Beach, CA 93433

Subject: Cultural Resources Report for the Somis Ranch Farmworker Housing Project, Ventura County, California

Dear Chief Vigil,

Rincon Consultants, Inc. (Rincon) has been retained by the Ventura County Resource Management Agency to conduct an Environmental Impact Report at 2789 Somis Road, located north of the City of Camarillo. The proposed project involves the construction of 360 dwelling units with a maximum height of 35 feet along with amenities such as community center rooms, play fields, tot lots/playgrounds, and basketball courts. The project also proposes to construct a community wastewater treatment facility and landscaping of 281,000 square feet of the project site. This project is subject to the California Environmental Quality Act (CEQA) and the Ventura County Resource Management Agency, Planning Division is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Concord.

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March 13, 2020

Santa Ynez Band of Chumash Indians
Kenneth Kahn, Chairperson
PO Box 517
Santa Ynez, CA 93460

Subject: Cultural Resources Report for the Somis Ranch Farmworker Housing Project, Ventura County, California

Dear Chairperson Kahn,

Rincon Consultants, Inc. (Rincon) has been retained by the Ventura County Resource Management Agency to conduct an Environmental Impact Report at 2789 Somis Road, located north of the City of Camarillo. The proposed project involves the construction of 360 dwelling units with a maximum height of 35 feet along with amenities such as community center rooms, play fields, tot lots/playgrounds, and basketball courts. The project also proposes to construct a community wastewater treatment facility and landscaping of 281,000 square feet of the project site. This project is subject to the California Environmental Quality Act (CEQA) and the Ventura County Resource Management Agency, Planning Division is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Concord.

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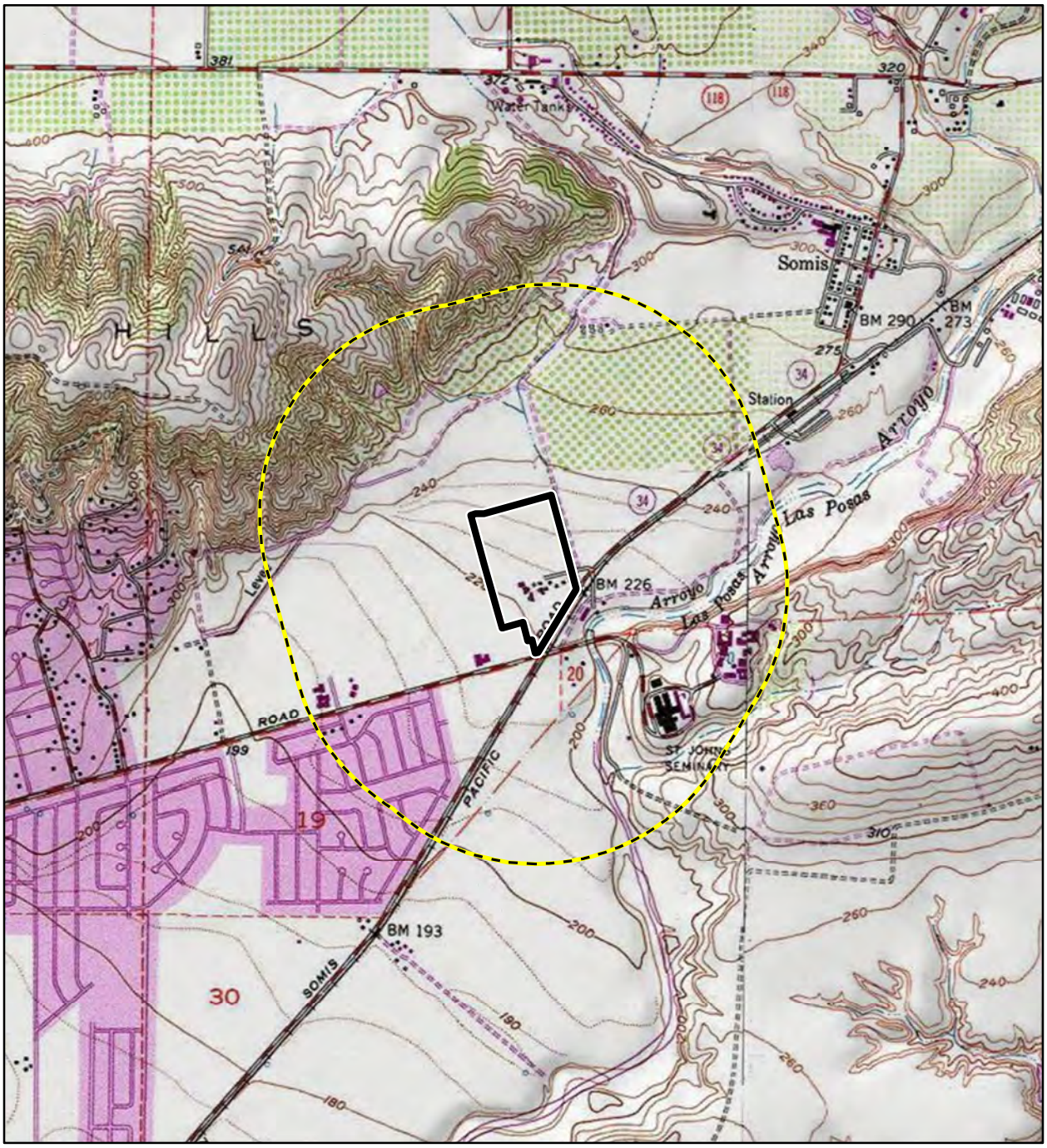
If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (213) 788-4842, extension 3016, or at efoster@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

Elaine Foster
Archaeologist

Enclosed: Project Location Map



Imagery provided by National Geographic Society, Esri and its licensors © 2020. Camarillo, Moorpark, Newbury Park, and Santa Paula Quadrangle. T02N R20W S17-20. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Half-Mile Buffer

Area of Potential Effects

N

0 1,000 2,000 Feet

0 250 500 Meters

1:24,000

Records Search Map

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612
510 834 4455 OFFICE AND FAX
info@rinconconsultants.com
www.rinconconsultants.com

March 13, 2020

Coastal Band of the Chumash Nation
Gino Altamirano, Chairperson
PO Box 4464
Santa Barbara, CA 93140

Subject: Cultural Resources Report for the Somis Ranch Farmworker Housing Project, Ventura County, California

Dear Chairperson Altamirano,

Rincon Consultants, Inc. (Rincon) has been retained by the Ventura County Resource Management Agency to conduct an Environmental Impact Report at 2789 Somis Road, located north of the City of Camarillo. The proposed project involves the construction of 360 dwelling units with a maximum height of 35 feet along with amenities such as community center rooms, play fields, tot lots/playgrounds, and basketball courts. The project also proposes to construct a community wastewater treatment facility and landscaping of 281,000 square feet of the project site. This project is subject to the California Environmental Quality Act (CEQA) and the Ventura County Resource Management Agency, Planning Division is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Concord.

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Sincerely,
Rincon Consultants, Inc.

Elaine Foster
Archaeologist

Enclosed: Project Location Map

Environmental Scientists *Planners* *Engineers*

Ventura, California 93003

Coastal Band of the Chumash Nation
Gino Altamirano, Chairperson
PO Box 4464
Santa Barbara, CA 93140

NIXIE 91109 04/21/2020
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
SORT IN MANUAL ONLY NO AUTOMATION
BC: 56998999955

Appendix C

DPR 523 Series Forms

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

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3CS; 5S3

Other Listings
Review Code **Reviewer** **Date**

Page 1 of 9 ***Resource Name or #:** 2789 Somis Road

P1. Other Identifier: Rice & Bell Ranch; Bell Ranch; Somis Ranch

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** Ventura

***b. USGS 7.5' Quad:** *Camarillo* **Date:** 1951 Township 2N, Range 20W, Section S.B. **B.M.**

c. Address: 2789 Somis Road City: Somis Zip: 93066

d. UTM: Zone: mE/ mN (G.P.S.)

e. Other Locational Data: APN: 156-0-180-485

***P3a. Description:**

2789 Somis Road is an agricultural property located adjacent to and west of Somis Road, slightly north of Las Posas Road, in unincorporated Ventura County. Originally part of a much larger ranch, the property is currently 36.36 acres and includes a grouping of eight residential and ancillary buildings near the southeast corner, surrounded by agricultural fields. Access is provided by Bell Ranch Road that branches off Somis Road and enters the property form the east. The eight buildings are generously spaced and surrounded with grassy lawn areas and landscaping. A single mobile-home is located at the southern portion of the building grouping. There are three agricultural fields located to the south, west, and north of the building grouping, respectively.

Residence No. 1

The eastern-most building on the property is a single-story, rectangular-planned residence. The vernacular bungalow-style building sits on a concrete foundation, is clad in wooden lap siding, and exhibits original one-over-one wood sash windows of various sizes throughout. The primary entry to the building, a single, multi-panel wooden door that appears original, is offset on the north elevation. The building is topped with a low-pitched front-gabled roof with moderate overhanging eaves, which are enclosed and supported with three cantilevered exposed beams. Slatted wooden gable vents are present. A satellite dish has been mounted to the roof. Surrounding the residence inside a white picket fence is a lush lawn and mature plantings including palm and orange trees in addition to ornamentals. Although research limitations prevented definitively dating the building, based on visual observation, it appears to date to circa 1920. The building appears minimally altered and is in good condition.

See continuation sheet, p. 4.

***P3b. Resource Attributes:** HP33. Farm/ranch

***P4. Resources Present:** ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing

P5b. Description of Photo:
Residence No. 5, view facing west, April 30, 2020.

***P6. Date Constructed/Age and Sources:**
■ Historic ☐ Prehistoric ☐ Both
Ranch originally established mid-1870s; extant buildings on current ranch property appear to date from early to mid-20th C (aerial photos, visual observation).

***P7. Owner and Address:**
Somis Ranch Partners, LLC

***P8. Recorded by:**
S. Zamudio-Gurrola, S. Treffers, R. Perzel
Rincon Consultants, Inc.
180 N. Ashwood Ave
Ventura, CA 93003

***P9. Date Recorded:**
June 5, 2020

***P10. Survey Type:**
Intensive

***P11. Report Citation:**

Treffers, S., S. Zamudio-Gurrola, R. Perzel, M. Pfeiffer, and H. Haas. 2020. Cultural Resources Assessment Report for the Somis Ranch Farmworker Housing Project. Rincon Consultants. Report on file, South Central Coastal Information Center, California State University, Fullerton.

***Attachments:** ☐ NONE ■ Location Map ☐ Sketch Map ■ Continuation Sheet ■ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

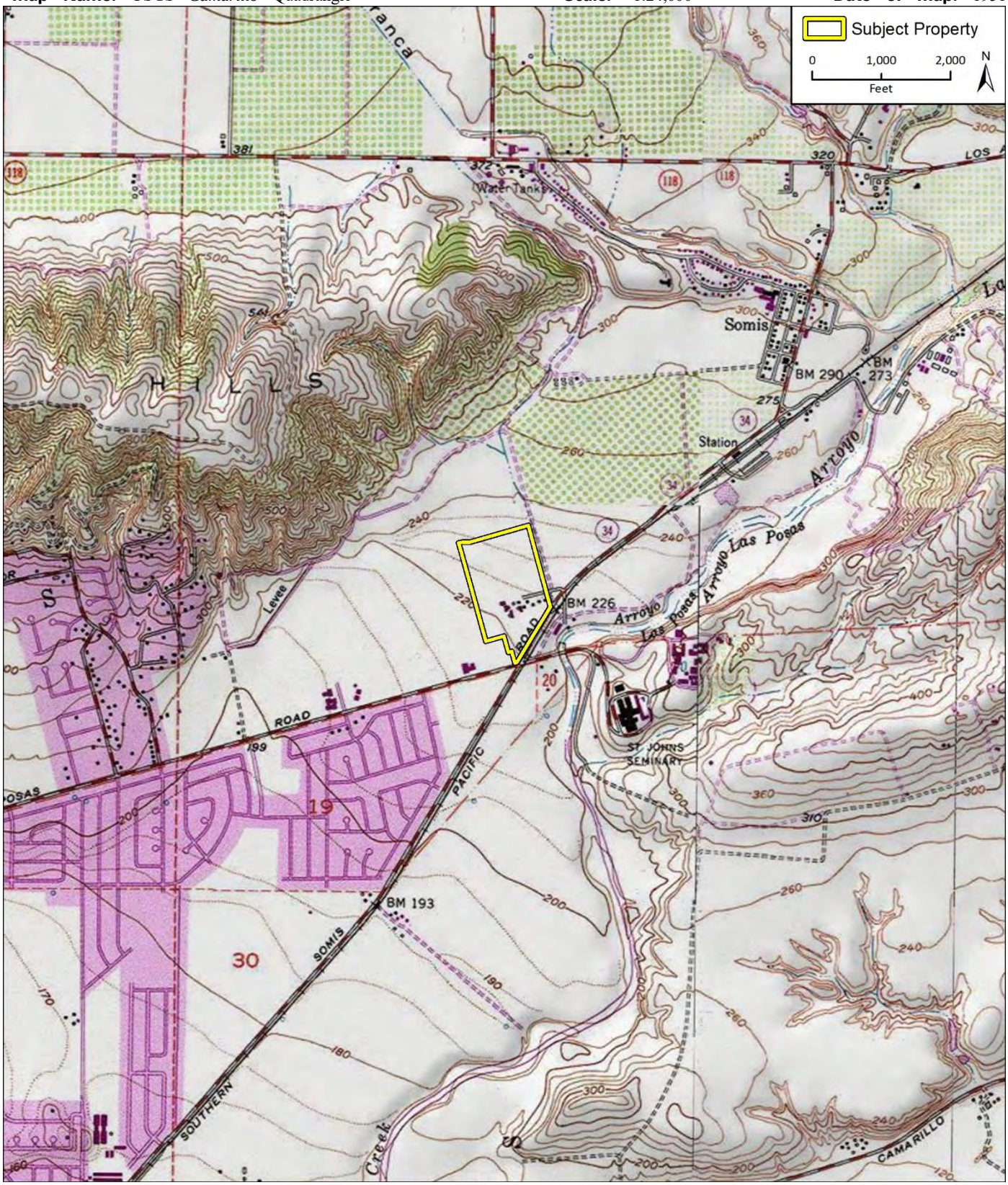
State of California X Natural Resources Agency Primary #
DEPARTMENT OF PARKS AND RECREATION HRI#

LOCATION MAP

Trinomial

Page 2 **of** 9 ***Resource Name or #** 2789 Somis Road

***Map Name:** USGS *Camarillo* Quadrangle ***Scale:** 1:24,000 ***Date of map:** 1951



BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** 2789 Somis Road ***NRHP Status Code** 3CS; 5S3

B1. Historic Name: N/A
B2. Common Name: N/A
B3. Original Use: Ranch B4. Present Use: Ranch
***B5. Architectural Style:** Vernacular; bungalow
***B6. Construction History:**
Rice & Bell Ranch was originally established in mid-1870s. Ranch was subdivided various times over the decades to its present 36.36-acre size. Various residences and ranch buildings have been constructed and moved or removed over the decades. The extant buildings on the ranch appear to date from the early to mid-twentieth century (based on aerial photos and visual observation). See P3a. Description for details.

***B7. Moved?** ☐ **No** ☐ **Yes** ■ **Unknown** **Date:** Unknown **Original Location:** Unknown
***B8. Related Features:** None
B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance:** **Theme:** Early Agricultural development; architectural typology **Area:** Ventura County
Period of Significance: Late 1800s-early 1900s **Property Type:** Ranch **Applicable Criteria:** 1/3

The property at 2789 Somis Road was once part of a much larger ranch established in the 19th century. Known as Bell Ranch, it was initially developed in the 1870s by early and notable Ventura County settlers Peter Rice and Robert Bell, and subsequently operated by Thomas Bard's Berylwood Investment Company beginning in the early 20th century. As discussed further below, both these individuals and entities made significant contributions to the early agricultural development in Ventura County.

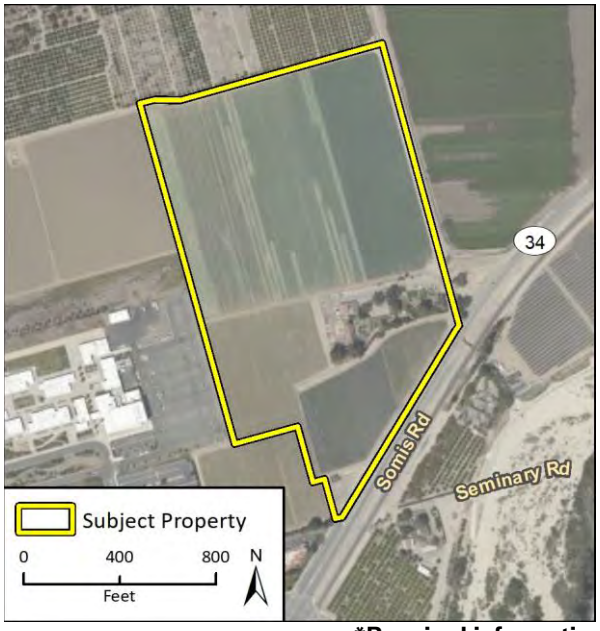
Peter Rice was born in Pennsylvania in 1818 and moved to Ohio with his parents at the age of five. As an adult he worked in the purchase and sale of cattle, and in the fur business, at which he was very successful. Rice bought a farm in Richland County, Ohio and married Isabella Turbutt. In 1849 they set out for California and initially settled in the northern part of the state. Rice was involved in mining, lumber, stagecoach lines, and the building of bridges and turnpikes. Drawn by the discovery of silver, he went to Virginia City, Nevada and successfully engaged in the development of sawmills and ditches. In 1871 Rice made a trip to Ventura County where he invested in a 1,150-acre ranch on the Rancho Las Posas and eventually relocated his family to the ranch (Mason 1883).

Robert Bell also arrived in Ventura County in 1871 by way of Ohio and northern California. Born in Richland County Ohio in 1842, he initially settled in Yuba County where he worked as a ranchman for several seasons. He relocated to Ventura County in 1871, purchasing 300 acres of land in the Somis area and improving the land to a tillable condition and grew beans, beets and hay. In 1877 he married Peter Rice's daughter, Rebecca Lucretia Rice, and would subsequently have three children, Polly, Bertha and Walter (Guinn 1907).

Soon after their arrival in Ventura County, Peter Rice and Robert Bell established an agricultural partnership known as Rice & Bell in the mid 1870s. By the end of the decade, Rice & Bell were invested in a farm, which appears to have included the current project site, covering 1,130 acres, with up to 3,000 acres also cultivated in adjoining lands (Hampton 2002; Mason 1883). Records from the late 1870s describe Rice & Bell's ranch as having "more the appearance of a village than the homes of quiet farmers; these enterprising and well-known gentlemen farm on so large a scale, that to give anything like a description of their ranch would require more space than we can give at the present" (Hampton 2002).
See continuation sheet, p. 5.

B11. Additional Resource Attributes: N/A
***B12. References:** See continuation sheet.

B13. Remarks:
***B14. Evaluator:** S. Zamudio-Gurrola, S. Treffers, Rincon Consultants.
***Date of Evaluation:** June 5, 2020



(This space reserved for official comments.)

P3a. Description (continued):

Residence No. 2

Sited roughly 30 feet west of Residence No. 1 and separated by a hedge row, Residence No. 2 is a single-story T-planned vernacular building also built in a bungalow style. The building is clad in wooden lap siding and features one-over-one wood sash windows of various size throughout, in addition to a single-light, wood-framed picture window on the primary (north) elevation. Two entrances to the building, single wooden multi-light doors, are accessible via a semicircular concrete patio at the front of the building. The building is topped with a low-pitched intersecting gabled roof with moderate overhanging eaves clad in asphalt shingles. Eaves are enclosed and supported with cantilevered exposed beams. Slatted wooden gable vents are present, and the building features two brick and mortar chimneys. Surrounding the building inside a wooden horizontal fence is a lush lawn and mature plantings including palm, avocado and cypress trees in addition to ornamentals. Although research limitations prevented definitively dating the building, based on visual observation, it appears to date to circa 1920. The building appears minimally altered and is in good condition.

Residence No. 3

Sited roughly 60 feet west of Residence No. 2 and set back roughly 50 feet further south on the property, Residence No. 3 is a single-story, L-planned vernacular building built in a bungalow style. The building sits on a raised poured concrete perimeter foundation and is clad in wooden lap siding. Visual observation suggests its footprint was expanded westward following its initial construction, potentially more than one time. The original portion of the building features one-over-one wood sash windows, some which appear in pairs, while the apparent addition features aluminum and vinyl sliders. The building includes several entryways, two of which on the primary, north elevation are contained under gabled overhangs supported by wooden columns; these are accessible via two concrete steps.

In the western portion of the building is a passthrough that leads from the front to the rear of the building. Although contained under a single roof structure, the passthrough functionally divides the building into two interior spaces. The building is topped with a low-pitched, intersecting gabled roof clad in asphalt shingles. Exposed rafters and cantilevered decorative exposed beams support the roof. Slatted wooden gable vents are present, and no chimneys appear extant. The building is set back behind and surrounded by a lawn and decorative plantings including rose bushes. Surrounding the building inside a wooden horizontal fence is a lush lawn and mature plantings including palm, avocado and cypress in addition to ornamentals. Although research limitations prevented definitively dating the building, it appears to have been built before 1945. Aside from the aforementioned addition, the building appears minimally altered and is in good condition; it is currently being used as an office.

Residence No. 4

Residence No. 4 is sited roughly 40 feet west of Residence No. 3. The vernacular bungalow-style residence is a single story and features a rectangular footprint. The building sits on a raised concrete perimeter foundation and is clad in wooden lap siding. It features one-over-one wood sash windows that appear in pairs or groupings of three. Two entrances are included, one offset (to the north) on the east elevation and another offset (to the south) on the west. Both entrances feature a single wooden door accessible via a concrete step and small porch sheltered under a gabled overhang supported with square wooden columns. The door at rear is topped with a single-light wooden transom sash; that on the primary, east elevation is bracketed with windows. The building is topped with a low-pitched, gabled roof clad in asphalt shingles. Exposed rafters and cantilevered exposed beams (decorative) support the roof. Slatted wooden gable vents are present. A brick and mortar chimney featuring a stepped design is exposed on the north elevation. The building is set back behind and surrounded by a lawn and ornamental plantings including beds of lilies. Mature cypress and orange trees surround the building at rear. Although research limitations prevented definitively dating the building, based on visual observation, it appears to have been built before 1945. The building appears minimally altered and is in good condition; it is currently being used as an office.

Residence No. 5

Sited just northwest of Residence No. 4, Residence No. 5 is a single story residence exhibiting an L-shaped footprint. The vernacular building is clad in wooden board and batten siding and features one-over-one wood sash windows of varying size. The building is topped with an intersecting, medium-pitched gabled roof clad in asphalt shingles with exposed rafters. A partial length concrete porch sheltered under the main roof structure lines the primary, east elevation. The building's primary entry, a single wooden door covered with a wooden screen door, is accessible via the porch. The building includes two secondary entrances on the north and west elevations, both accessible via steps and a concrete stoop. The door on the north elevation appears non-original while all other doors and windows appear original. The building is surrounded with mature vegetation, including cypress trees and rose bushes, to its south and west. Although research limitations prevented definitively dating the building, based on visual observation, it appears to predate the Residence Nos. 1 and 2 and is estimated to have been built earlier in the twentieth century. It appears minimally altered and is in good condition.

Barn No. 1

Barn No. 1 is a single-story, rectangular-planned utilitarian building sited adjacent to the west of Residence No. 4. The building is topped with a gabled roof with moderate overhang and exposed rafters clad in rolled asphalt. It is clad in wooden lap siding and exhibits no window openings. Original barn doors on the north and south elevations have been removed and their large openings infilled with a combination of board and batten siding and solid, contemporary doors (two on each elevation). A small shed-like addition has been added to the building's northwest corner to provide covered storage. Compared with property residences, the building is surrounded with minimal vegetation. Although research limitations prevented definitively dating the building it appears to date to have been built before 1945. It appears relatively intact and in fair condition; it is currently used for storage.

P3a. Description (continued):

Barn No. 2

Located roughly 25 feet south of Barn No. 1, Barn No. 2 is a monitor barn with an apparent addition on the north end, creating roughly a L-shaped plan. It is clad in corrugated vertical metal paneling. The building is topped with a gabled clerestory roof clad in corrugated metal paneling consistent with siding material. It exhibits limited window openings; those extant throughout are relatively small and include various types of metal window sash. Large door openings are featured on the south and west elevations of the building. An original sliding metal-clad barn door remains extant on the south elevation door opening; the door on the west elevation appears to be non-original. Compared with the property's residences, the building is surrounded with minimal vegetation. Although research limitations prevented definitively dating the building it appears to date to have been built before 1945. The building appears relatively intact and in fair condition; it is currently used as a workshop.

Barn No. 3

Barn No. 3 is located roughly 20 feet south of and sited trending west-east to face Barn No. 2. The utilitarian building is a single story and features a rectangular footprint. It is clad in vertical wooden siding (some areas are board-and-batten), painted red. The building is topped with an exaggerated shed roof clad in corrugated metal paneling with minimal overhang and exposed rafters. Minimal window openings are included but the primary (north) elevation is lined with large openings covered with wooden sliding barn doors that appear original. It is surrounded with minimal vegetation although two large eucalyptus trees are extant to its immediate rear (south). Although research limitations prevented definitively dating the building it appears to date to have been built before 1945. The building appears minimally altered and is in fair condition; it is currently used for storage.

B10. Significance, (continued):

Although it is unclear if any of these buildings remain within the current project site, Rice & Bell's ranch was described as containing an adobe ranch house, a barn, machinery storehouse, horse stables, a blacksmith shop, four granaries, cribs, and a yard and orange trees. The ranch produced barley, wheat and corn, and was used for hog-raising. In the 1890s, the Rice & Bell ranch was also reported to be growing beans and walnuts. Peter Rice died in 1890, but Bell and his wife Rebecca continued to maintain the farming business into the following decades (Hampton 2002; *Los Angeles Times* 1997). The Bell's 42-year tenure on the ranch established the property's identity in the community through the following decades as the Bell Ranch.

Around 1920, Robert and Rebecca Lucretia Bell appear to have sold the ranch to the Berylwood Investment Company (*Oxnard Daily Courier* 1923; *Los Angeles Times* 1997). The Berylwood Investment Company was founded in 1911 by Thomas R. Bard, a prominent politician, businessman, and key figure in the development of Ventura County. Soon after its formation and under the direction of the Bard family, Berylwood Investment Company began improvements to properties in the Las Posas and Simi valleys. Thomas' son Richard Bard was appointed general manager in 1917 and various members of the Bard family would continue to oversee leadership roles in the company into the following decades. By the 1950s the company's holdings included nearly 2,000 acres of orchards, over 1,800 acres of beans and other irrigated row crops, and over 3,500 acres of open land and pasture, part of which was planted to barley and hay. This acreage was located at three ranches including the Bell Ranch, Hondo Ranch and Simi Ranch. The company's headquarters were once located in downtown Hueneme but in 1950 moved to a hilltop overlooking Somis, and their original office building became Port Hueneme City Hall (*Oxnard Press Courier* 1957).

Following the transfer of management to the Berylwood Investment Company circa 1920, the ranch became known as the B.I. Bell Ranch, the "B.I." a reference to the ranch's new management (Robertson, n.d.). Although the extant buildings on the property could not be definitively dated due to research limitations, Residence Nos. 1, 2 and 5 were constructed prior to 1927 as demonstrated by an aerial photograph from that year. Residence No. 5 may predate the other buildings. However, it is unclear whether Residences Nos. 1 and 2 were constructed during the property's association with Rice & Bell or the Berylwood Investment Company. The additional extant buildings described above appear to date to the post 1940s per historic aerial photographs (UCSB Map & Imagery Lab, various). Rebecca Lucretia Bell died in 1928 and Robert Bell died in 1930; however, it is unclear where they were living at this time (R.L. Polk & Co. 1956; Hampton 2002; Find a Grave 2020).

In the 1940s the majority of the Bell Ranch (which included the subject property and surrounding lands) was planted with orchard rows (UCSB Map & Imagery Lab, various). By the 1950s additional orchards had been planted closer to the hill to the north, and the land south of the ranch complex was planted with lower-scale row crops (UCSB Map & Imagery Lab 1959). It appears subdivision of the ranch land adjacent to Las Posas Road began by the 1960s and continued through the 1970s. By the 1960s some of the former orchard land fronting Las Posas Road (slightly west of the subject property) had been developed with various uses that appear to include office, commercial and industrial (NETRonline 1967).

The company Kaiser Aetna purchased the Bell Ranch property from Berylwood Investment Company in 1969 (*Oxnard Press Courier* 1971a). Kaiser Aetna had an Agricultural Services division which provided management services for agricultural properties and conducted real estate development. During its ownership of the Bell Ranch, the company replanted orchards to replace poor performing and diseased trees, installed new irrigation, and planted new citrus and avocado acreage. The Bell Ranch served as headquarters for Kaiser Aetna's Agricultural Services and its Agricultural Operations Division (*Oxnard Press Courier* 1971a and 1977).

Online Ventura County Recorder and Assessor records indicate that by 1970, Kaiser Aetna began surveying the property for subdivision. The subject property was included in a tract called the Peter Rice Tract, and the T.R. Bard Tract was mapped adjacent to the north (Ventura County 1970. Record of Survey, 37RS64). Another tract map made in 1974 created several parcels, of which the 112.9-acre Parcel 1 included the subject property (Parcel Map 16PM 98). See continuation sheet, p. 6.

B10. Significance (continued):

In the early 1970s Kaiser Aetna formulated a 10,000-acre master planned, multi-use development for a portion of the property. At the time, Bell Ranch was described as encompassing 1,200 acres (*Oxnard Press Courier* 1971b). However, the master plan was never fully realized and newspaper accounts state the development area was reduced in size (*Oxnard Press Courier* 1975). The company sold 2+ acre homesites planted with avocado trees near Los Angeles Avenue, and developed properties fronting Las Posas Avenue (which today include a medical building and a school) (*Oxnard Press Courier* 1971a; NETRonline 1967, 1969 and 1978).

In 1977, a new corporation formed by five former employees of Kaiser Aetna and called Ag Land Services Inc. purchased Kaiser Aetna's Agricultural Services Division (*Oxnard Press Courier* 1977). Located on the subject property at 2789 Somis Road, it appears Ag Land Services Inc. has remained on the property through present day. The company is involved in agricultural consulting and management of numerous ranches in the Somis, Camarillo, Moorpark and Ventura areas (Citrus Pest & Disease Prevention Program 2020).

Since this time, the larger ranch property continued to be further subdivided and developed with new uses. By 1978 St. John's Pleasant Valley Hospital was developed slightly north of Las Posas Road (*Oxnard Press Courier* 1971a; NETRonline 1967, 1969 and 1978). In 1979 the Peter Rice Tract was subdivided leading to the development of a police station, medical offices, and commercial businesses (NETRonline 1989; Google Earth).

The Oxnard Union High School District developed a new high school on a portion of the Bell Ranch property which opened in 2015. Located slightly west of the subject property, the new school was named "Rancho Campana", which translates to "Bell Ranch" in Spanish, in honor of the family who once owned the land (Leung 2013; Oxnard Union High School District 2017 and 2020). Records on file with the Ventura County Assessor and Recorder show in 2019 a 40.22-acre parcel was split into two parcels which included the subject property of 36.36 acres and a smaller 4.64-acre parcel that is now owned by the City of Camarillo.

Evaluation:

Based on information available at the time of this study, the subject property appears to possess significant associations with the early agricultural history of Ventura County and may be presumed eligible for listing in the CRHR and as a Ventura County Landmark. The exact construction dates of the buildings on the ranch property were unable to be definitively determined due to in-person research constraints resulting from COVID-19 considerations. However, available information indicates the ranch was historically associated with two notable nineteenth century pioneering entities which were influential in Ventura County's agricultural history, Rice & Bell ranch and the Bard family's Berylwood Investment Company. Residence Nos. 1 and 2 appear to have been built circa 1920, around the time the Berylwood Investment Company assumed ownership of the ranch. Residence No. 5 appears to have been built earlier, but further research would be necessary to substantiate. It is unclear what if any extant buildings on the site are associated with the Rice & Bell period of the property. However, the Berylwood Investment Company maintained a noteworthy presence in Ventura County's growth during and after this period, supported in part by the subject property. Further, the buildings on the property are largely intact and representative of early twentieth century agricultural practices within Ventura County and embody the distinctive characteristics of this period of architectural history. For these reasons the subject property appears to be eligible under CRHR Criteria 1 and 3, and Ventura County Landmark Criteria 1, 2, and 5. The original Bell Ranch has been continually subdivided and a number of buildings and structures have been removed and replaced; however, the ranch still retains multiple buildings from the early twentieth century and maintains its historic character such that it retains sufficient integrity to convey its significant associations.

Although the ranch property is associated with Peter Rice and Robert Bell, their association with the extant buildings cannot be definitively documented at this time. Further, while Thomas R. Bard and other members of the Bard family who founded and led the Berylwood Investment Company have are associated with the property, this association is tangential, and the subject property is not directly illustrative of any significance these individuals may have. For this reason, the subject property does not appear to be eligible for state or local designation under CRHR Criterion 2 or Ventura County Landmark Criterion 3. Lastly, the CHRIS records search results and archaeological field survey do not indicate the subject property is eligible for state or local designation under CRHR Criterion 4 or Ventura County Landmark Criterion 4.

B12. References (continued):

Find a Grave. 2020. "Rebecca Lucretia Rice Bell", https://www.findagrave.com/memorial/59606459/rebecca-lucretia-bell

Franks, Kenny Arthur and Paul F. Lambert. 1985. *Early California Oil: A Photographic History, 1865-1940*. Texas A&M University Press, College Station, Texas.

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Leung, Wendy. 2013. "Future Camarillo high school gets name", *Ventura County Star*, 26 September.

Los Angeles Times. 1997. "Robert B. Hooker; WWII Veteran, Somis Rancher", 22 May.

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B12. References (continued):

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Oxnard Daily Courier. 1923. "Announcements", 9 November.

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1957 "The Berylwood Investment Co.", 29 November.
1971a "New Agricultural Management Service Available in County", 3 July.
1971b "Editorials: Development vs. Environment", 19 September. Page 4.
1975 "Company To Seek Annexation Move", 22 July.
1977 "Camarillo Men Buy Ag Services", 5 August.

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2020 Rancho Campana High School – History. Accessed March 19, 2020 at https://www.ranchocampanahigh.us/students-parents/about-rancho/history/
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1927 Flight C-104, Frame I-14
1935 Flight C-3797, Frame 28
1959 Flight AXI-1959, Frame 18W-14
1962 Flight HA-OH, Frame 61
1964 Flight HA-WE, Frame 44

Ventura County Recorder
1892 "Map of the Town of Somis in Rancho Las Posas", 003MR033
1948 Bard-Holbert Subdivision No. 1, 15MR68
1953 Bard-Holbert Subdivision No. 2, 21MR75

P5a. Photo or Drawing (continued):

1927 Aerial Photograph Depicting Ranch Property and Building Complex (at center)

***Recorded by:** S. Zamudio-Gurrola & R. Perzel, Rincon Consultants ***Date:** June 5, 2020 ■Continuation ☐Update

P5a. Photo or Drawing (continued):

Residence No. 1, Primary (North) and West Elevations

Residence No. 2, Primary (North) and East Elevations

Residence No. 3 as Viewed from the Northwest

Residence No. 4, Primary (East) Elevation

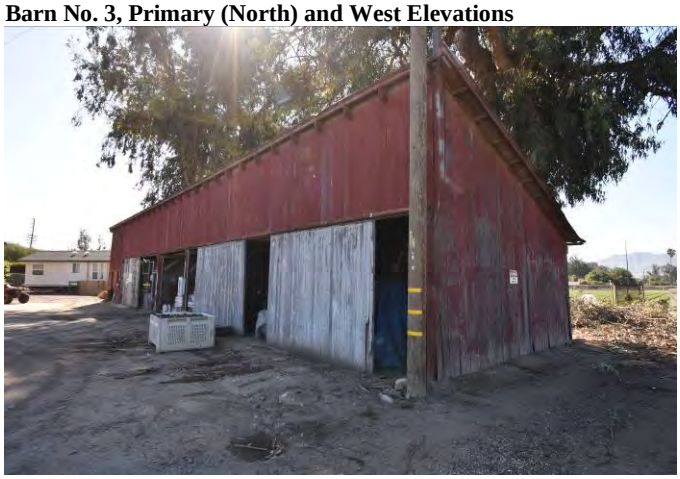
Residence No. 5, Primary (East) Elevation

Barn No. 1, South Elevation

P5a. Photo or Drawing (continued):

Barn No. 2, East and South Elevations

Barn No. 3, Primary (North) and West Elevations



Site Map of Building Complex on Developed Portion of Ranch Property

Appendix F

Noise Modeling Results

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 6/2/2020
Case Description: Somis Ranch

				---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential	Residential	55	50	45

			Equipment			
	Impact		Spec Lmax	Actual Lmax	Receptor Distance	Estimated Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Dozer	No	40		81.7	50	0
Backhoe	No	40		77.6	50	0

		Results	
		Calculated (dBA)	
Equipment		*Lmax	Leq
Dozer		81.7	77.7
Backhoe		77.6	73.6
	Total	81.7	79.1

*Calculated Lmax is the Loudest value.

ELECTRICAL DATA

38HDR UNIT SIZE	V–PH–Hz	VOLTAGE RANGE*		COMPRESSOR		OUTDOOR FAN MOTOR			MIN CKT AMPS	FUSE/ HACR BKR AMPS
		Min	Max	RLA	LRA	FLA	NEC Hp	kW Out		
018	208/230–1–60	187	253	9.0	48.0	0.80	0.125	0.09	12.1	20
024	208/230–1–60	187	253	12.8	58.3	0.80	0.125	0.09	16.8	25
030	208/230–1–60	187	253	14.1	73.0	1.45	0.25	0.19	19.1	30
036	208/230–1–60	187	253	14.1	77.0	1.45	0.25	0.19	19.1	30
	208/230–3–60	187	253	9.0	71.0	1.45	0.25	0.19	12.7	20
	460–3–60	414	506	5.6	38.0	0.80	0.25	0.19	7.8	15
048	208/230–1–60	187	253	21.8	117.0	1.45	0.25	0.19	28.7	50
	208/230–3–60	187	253	13.7	83.1	1.45	0.25	0.19	18.6	30
	460–3–60	414	506	6.2	41.0	0.80	0.25	0.19	8.6	15
060	208/230–1–60	187	253	26.4	134.0	1.45	0.25	0.19	34.5	60
	208/230–3–60	187	253	16.0	110.0	1.45	0.25	0.19	21.5	35
	460–3–60	414	506	7.8	52.0	0.80	0.25	0.19	10.6	15

* Permissible limits of the voltage range at which the unit will operate satisfactorily

FLA – Full Load Amps

HACR – Heating, Air Conditininng, Refrigeration

LRA – Locked Rotor Amps

NEC – National Electrical Code

RLA – Rated Load Amps (compressor)

NOTE: Control circuit is 24–V on all units and requires external power source. Copper wire must be used from service disconnect to unit. All motors/compressors contain internal overload protection.

SOUND LEVEL

Unit Size	Standard Rating (dB)	Typical Octave Band Spectrum (dBA) (without tone adjustment)						
		125	250	500	1000	2000	4000	8000
018	68	52.0	57.5	60.5	63.5	60.5	57.5	46.5
024	69	57.5	61.5	63.0	61.0	60.0	56.0	45.0
030	72	56.5	63.0	65.0	66.0	64.0	62.5	57.0
036	72	65.0	61.5	63.5	65.0	64.5	61.0	54.5
048	72	58.5	61.0	64.0	67.5	66.0	64.0	57.0
060	72	63.0	61.5	64.0	66.5	66.0	64.5	55.5

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

UNIT SIZE–VOLTAGE, SERIES	REQUIRED SUBCOOLING °F (°C)
018	12 (6.7)
024	12 (6.7)
030	12 (6.7)
036	12 (6.7)
048	12 (6.7)
060	12 (6.7)

XQ200 RENTAL

STANDBY 200 kW
PRIME 182 kW
POWER MODULE

Frequency	Voltage	Standby kW (kVA)	Prime kW (kVA)
60 Hz	600V	200 (250)	182 (227.5)
60 Hz	480/277V	200 (250)	182 (227.5)
60 Hz	240/139V	200 (250)	182 (227.5)
60 Hz	208/120V	200 (250)	182 (227.5)

FEATURES

FUEL/EMISSIONS STRATEGY
- EPA Tier 4 Interim and CARB Certified for Non-Road Mobile applications at all 60 Hz ratings

SINGLE-SOURCE SUPPLIER
- Factory designed and fully prototype tested with certified torsional vibration analysis available
- ISO 9001:2000 compliant facility

CAT® C7.1 Interim 4 ACERT™ DIESEL ENGINE
- Utilizes ACERT Technology and Cat NOx Reduction System (NRS)
- Cat CEM exhaust after treatment
- Four-stroke diesel engine combines consistent performance and excellent fuel economy with minimum weight
- Electronic engine control

CAT LC SERIES GENERATOR
- Matched to the performance and output characteristics of Cat engines
- UL 1446 Recognized Class H insulation

CAT EMCP 4.2 CONTROL PANEL
- Fully featured power metering, protective relaying and engine/generator control and monitoring
- Simple user friendly interface and navigation
- Automatic set-point adjustment

CAT DIGITAL VOLTAGE REGULATOR (CDVR)
- Three-phase sensing
- Adjustable volts-per-hertz regulation
- Provides precise control, excellent block loading, and constant voltage in the normal operating range

ENCLOSURE
- Highly corrosion resistant 12 gauge galvanealed sheet steel construction
- Two coat polyester powder-coated finish
- Six access doors for ease of maintenance
- Secure and safe design with safety glass control panel viewing window with lockable access door
- Fuel fill and battery can only be reached through lockable access doors
- Certified single point lifting eye and lifting points on the base frame

DISTRIBUTION PANEL
- Switchable voltage from 480/277V 3 phase to 240/139V 3 phase (can be adjusted down to 208/120V 3 Phase), 240/120V 1 phase

REAR CUSTOMER ACCESS
- Separate control panel and distribution panel access doors
- Hinged door over main bus connectors
- Emergency stop on panel
- Remote start/stop contacts

ENVIRONMENTALLY FRIENDLY DESIGN
- EPA Tier 4Interim certified
- 110% spill containment of onboard engine fluids
- Meets 71 dB(A) at 7 m per SAE J1074

RENTAL READY FEATURES
- Anti-condensation heater 110-120 VAC
- Coolant heater 110-120 VAC
- UL Listed battery charger
- Solar powered battery maintainer
- Cam lock distribution system

XQ200 RENTAL

FACTORY INSTALLED STANDARD EQUIPMENT

SYSTEM	STANDARD EQUIPMENT
Air Inlet	Air cleaner, two stage cyclonic/paper with dust cup and service indicator Series turbocharger and air-to-air aftercooler
Charging System	12V - 100 Amp charging alternator UL/CSA listed 120V-10A battery charger Solar powered battery maintainer
Control Panel	EMCP 4.2 genset mounted controller Automatic start/stop with cool down timer Idle/rated switch Generator Protection features: 32, 32RV, 46, 50/51, 27/59, 81 O/U Metering display: voltage, current, frequency, power factor, kW, WHM, and kVAR
Cooling System	Package mounted radiator with vertical air discharge provides 43° C ambient capability at standby rating 120VAC coolant heater, fuse protected, thermostatically controlled, automatically disconnected on start-up Coolant drain line with internal control valve piped to base-frame Coolant sight gauge, level switch and shutdown 50% Coolant antifreeze with corrosion inhibitor
Distribution System	NEMA 1 steel enclosure with separate hinged, lockable door Main bus connections with hinged load cover with clear Plexiglas window closed for operation 4-pole 800A 100% UL circuit breaker with 12V DC shunt trip wired to load door safety switch Multiple duplex and twist lock receptacles with individual circuit breakers Two wire remote start/stop terminals and 120 VAC shore power connection for rapid starting CamLock distribution system
Enclosure	Sound attenuating, 12gauge galvanealed sheet metal enclosure limits overall noise to 71 dB(A) @ 7m (23') Interior walls and ceilings insulated with sound attenuating foam Black stainless steel pad-lockable latches, doorkeepers on all doors and zinc die-cast hinges/grab handles All components are pretreated for anti-corrosive protection prior to painting with polyester powder coat Painted Cat power module white with Cat rental decals
Engine	EPA approved Tier 4 Interim Cat C7.1 ATAAC heavy duty diesel engine Electronic ADEM™ A4 controls 12VDC energized to shutdown solenoid
Exhaust System	Cat Clean Emissions Module and integrated silencer with flexible connectors
Fuel System	350 gal fuel tank, UL listed, double wall, 24 hr runtime @ 100% prime rating Fuel cooler, primary fuel filters with integral water separator, and engine mounted secondary Switch operated electric priming pump Interconnected three way fuel for switching between remote and integral tank
Generator	Three-phase, random wound, 12-lead design, 0.667 pitch Screen protected and drip proof, self regulating, brushless generator with fully interconnected damper windings, IC06 cooling system and sealed for life bearings Class H insulation with coastal insulation protection. Windings are impregnated in a triple dip, thermo-setting moisture, oil and acid resisting polyester varnish. Heavy coat of anti-tracking varnish for additional protection against moisture and condensation Permanent magnet provides 350% short circuit, enhanced motor starting and non-linear performance 120VAC anti-condensation heater Cat digital voltage regulator (Cat DVR) with VAR/PF control
Lube System	Lubricating oil system including pump, integral oil cooler, lube oil, filter, open crankcase breather with filter Oil drain line with internal valve routed to connection point accessible from exterior 500 hour oil change intervals
Mounting System	Generator set soft mounted to the heavy duty, fabricated steel base frame using captive anti-vibration pads between the generator set and base-frame to ensure complete isolation of rotating assemblies Base frame includes integral fuel tank and provides 110% spill containment of all engine fluids
Starting System	Single 12V electric starting motor on engine One 12V-1000 CCA Cat brand maintenance free battery with disconnect switch, battery rack, and cables Glow plugs fitted on the engine
General	Factory testing of standard generator set and complete power module Full manufacturer's warranty O&M manuals
	OPTIONAL EQUIPMENT
Available Options	Canadian Standards Authority certification (CSA) Transport Canada compliant fuel tank (IBC CGSB43) Tandem axle trailers with either hydraulic or electric brakes

XQ200 RENTAL

TECHNICAL DATA

CAT GENERATOR

Frame Size LC5034H
Pitch 0.667
No. of poles 4
Excitation . . . . . Static regulated brushless PM excited
Number of bearings. . . . . Single bearing, close coupled
Insulation. . . . . Class H
Enclosure . . . . . Drip proof IP23
Alignment. . . . . Pilot shaft
Overspeed capability – % of rated . . . .125% of rated
Voltage regulator . . . . . 3 phase sensing with Volts-per-Hertz
Voltage regulation. . . . . Less than ± ½% voltage gain
Adjustable to compensate for engine speed droop and line loss
Wave form deviation 2%
Telephone Influence Factor (TIF). . . . . Less than 50
Harmonic Distortion (THD). . . . . Less than 5%

ENGINE

Manufacturer ……..Caterpillar
Model……C7.1
Type ……4-cycle
Cylinder configuration ……In-line 6
Displacement – L (cu in) . . . . . 7.01 L (427.7 in^3)
Bore – mm (in). . . . . 105mm (4.13 in)
Stroke – mm (in) . . . . . 135 mm (5.3 in)
Compression ratio. 16.5:1
Engine RPM 2200
Aspiration. . . . . ATAAC
Fuel system . . . . . MEUIC
Governor type . . . . . ADEM™ A4
Fuel…… Requires ULSD

Materials and specifications are subject to change without notice.

Generator Set Technical Data		60Hz	60Hz
	Units	Standby	Prime
Power Rating	kW (KVA)	200 (250)	182 (227.5)
Performance Specification		DM	DM
Lubricating System Oil pan capacity	L (gal)	16(4.3)	16(4.3)
Fuel System Fuel consumption 100% Load 75% Load 50% Load Fuel Tank Capacity Running time @ 75% rating	 L/hr (gal/hr) L/hr (gal/hr) L/hr (gal/hr) L (gal) Hr	 59.5 (15.7) 44.6 (11.8) 29.8 (7.9) 1295 (350) 29	 53.1 (14.0) 39.8 (10.5) 27.8 (7.3) 1295 (350) 33
Cooling System Ambient Capability Engine & Radiator coolant capacity Engine coolant capacity	 °C (°F) L (gal) L (gal)	 43 28 (7.6) 11.5 (3.1)	 43 28 (7.6) 11.5 (3.1)
Air Requirements Combustion air flow Maximum dirty air cleaner restriction	 m_3/min (cfm) kPa (in H_2O)	 14.3 (505)	 13.6 (480.3)
Exhaust System Exhaust flow at rated Exhaust temperature at rated kW – dry exhaust	 m_3/min (cfm) °C (°F)	 N/A 506 (942.8)	 13.1 (462.6) N/A
Noise Rating (with enclosure)* @ 7 meters (23 feet)	 dB(A)	 71	 71
Emissions (Tier 4 interim regulation) NOx CO HC PM	 g/hp-hr g/hp-hr g/hp-hr g/hp-hr	 1.9 .2 .02 .005	 1.9 .2 .02 .005

Model	Length mm (in)	Width mm (in)	Height mm (in)	Weight with Lube oil and Coolant kg (lb)	Weight with fuel, lube oil and coolant Kg (lb)
XQ200 w/o trailer	4083 (161)	1401(52)	2162(85)	4053 (8916)	5300 (11660)
XQ200 w/ trailer	6019 (237)	2235(88)	2577(101)	4969 (10932)	6300 (13860)

CONTROL PANEL

FEATURES

- EMCP 4.2 engine operator interface
- Battery charger indicator
- Fuel level display
- Idle /rated switch
- Panel light momentary pushbutton
- Voltage adjust potentiometer
- Regeneration alarm indications for DPF 80% soot level and high exhaust temperature
- Coolant alarm
- Emergency stop pushbutton
- Alarm horn
- Convenient service access for Cat (service tools not included).

EMCP 4.2 ENGINE OPERATOR INTERFACE

- Controls
  - Run/Auto/Stop
  - Emergency Stop
  - Speed Adjust
  - Cycle crank
  - Cool-down timer
- Engine Monitoring:
  - RPM
  - DC Volts
  - Operating hours
  - Oil pressure
  - Coolant Temperature
  - Oil Temperature
- True RMS AC metering, 3 phase
  - L-L volts, L-N volts, phase amps
  - Average volts, Amps, Frequency
  - ekW, kVA, kVAR, kW-hr, %kW
  - Power Factor (Average, Phase)
  - kW-hr, kVA-hr (total)
- Shutdowns with common indicating light for:
  - Low oil pressure
  - Overspeed
  - High Coolant Temp
  - High Oil Temperature
  - Failure to Start (Overcrank)
  - Emergency stop
  - Low Coolant level
- Fuel level monitoring and control.

EMCP 4.2 GENERATOR PROTECTIVE RELAYING

- Generator protective features provided by EMCP 4.2
  - Phase over/under voltage (Device 27/59)
  - Over/Under frequency (Device 81 O/U)
  - Reverse Power (Device 32/32RV)
  - Current Balance (46)
  - Overcurrent (Device 50/51) (GCB trip unit)
  - Loss of Excitation (Device 40) (CDVR)
  - Generator Phase Sequence

DISTRIBUTION PANEL

- One 4 pole 800 A MCCB, with 12 VDC shunt trip coil activated on any monitored engine or electrical
- Under-voltage release NEMA 1 steel enclosure with hinged lockable door with clear Plexiglas window
- Bus bars are sized for full load capacity of the generator set at 0.8 power factor.
- Includes ground bus, tin-plated copper, for connection to the generator frame ground and field ground cable.
- Customer convenience panel with multiple output receptacles:
  1 – 125V, 30 A single phase auxiliary supply
  2 – 240V, 50A California style Twist Lock.
  2 – 120/208V, 20A Twist Lock.
  2 – 120V, 20A Duplex Receptacles with GFI..
- CamLock distribution system
- Consistent 120VAC output from GFCI receptacles independent of bus bar voltage

AC DISTRIBUTION

- Provides 120 VAC for all module accessories.
- Includes controls to de-energize jacket water heaters, battery charger, and generator space heater when the engine is running.

XQ200 RENTAL

RATING DEFINITIONS AND CONDITIONS

Meets or Exceeds International Specifications:
CSA 22.0 No. 100, IEC60034-22, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-16, UL1004B, NEC,CEC, 2006/42/EEC, 2006/95/EC, 2004/108/EC, 2000/EC/14, UL142, Ulc601, IBC CGSB43, API 546, EGSA 101P, IEEE 43, DEFRA, UL1741, NFPA 99/110, OSHA, 97/68/EC, BS4999, BS5000, IEC60034-5

Fuel Rates are based on fuel oil of 35o API {16oC (60oF)} gravity having an LHV of 42780 kj/kg (18390 Btu/lb) when used at 29oC (85oF) and weighing 838.9 g/liter (7.001 /b/U.S. gal). Additional ratings may be available for Specific customer requirements, contact your Caterpillar Representative for details. For information regarding Low Sulfur fuel and biodiesel capability, consult your Cat Dealer.

Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO0346 standard conditions.

Standby – Applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The generator on the generator set is peak prime rated (as defined in ISO852 at 30° C (86° F).

Prime – Applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchase power. There is no limitation on the annual hours of operation and the generator can supply 10% overload power.

LEHX0011-00 (05/12)

Appendix G

Seepage Pit Performance Test Report

SEEPAGE PIT PERFORMANCE TEST REPORT

FOR PROPOSED SOMIS RANCH RESIDENTIAL DEVELOPMENT

VENTURA COUNTY, CALIFORNIA

PROJECT NO.: 302947-001

SEPTEMBER 24, 2019

PREPARED FOR

PLAZA DEVELOPMENT PARTNERS LLC

ATTENTION: DAVE WHITE

BY

EARTH SYSTEMS PACIFIC

1731-A WALTER STREET

VENTURA, CALIFORNIA 93003

Earth Systems
1731 Walter Street, Suite A | Ventura, CA 93003 | Ph: 805.642.6727 | www.earthsystems.com

September 24, 2019

Project No.: 302947-001
Report No.: 19-9-27

Plaza Development Partners LLC
Attention: Dave White
PO Box 6045
Oxnard, CA 93031-6045

Project: Somis Ranch - Proposed Residential Development
Camarillo Area of Ventura County, California
Subject: Seepage Pit Performance Test Report
Reference: Onsite Wastewater Treatment System Technical Manual, County of Ventura, February 28, 2006.

Introduction

As requested, Earth Systems Pacific (Earth Systems) has performed seepage pit performance testing for a proposed residential development at Somis Ranch in the Camarillo area of Ventura County, California. The scope of the work reported herein was based on the current Ventura County Ordinance. It is our understanding that numerous seepage pits will be constructed along the north and west sides of the project site and that the pits will accommodate treated effluent and collected stormwater.

Field Exploration and Soil Sampling

Six borings (B-20 through B-25) were drilled to depths ranging from approximately 51.5 to 61.5 feet below the existing ground surface to observe the soil profile and to obtain samples for laboratory analyses. The borings were drilled July 1 and 2 of 2019, using 8-inch diameter hollow-stem continuous flight auger powered by a CME-85 truck mounted drilling rig. The approximate locations of the borings were determined in the field by pacing and sighting, and are shown on the attached Performance Test Location Map.

Samples were obtained within the borings with a Standard Penetration Test (SPT) sampler (ASTM D 1586). The SPT sampler has a 2.00-inch outside diameter and a 1.37-inch inside diameter, but when used without liners, as was done for this project, the inside diameter is 1.63 inches. The samples were obtained by driving the samplers with a 140-pound hammer dropping 30 inches in accordance with ASTM D 1586. The hammer was operated with an automatic trip mechanism.

The final logs of the borings represent interpretations of the contents of the field logs and the results of laboratory testing performed on the samples obtained during the subsurface study. The final logs are attached to this report.

Soil and Groundwater Conditions

Evaluation of the subsurface indicates that much of the project site is underlain directly by alluvium consisting of interbedded clay, silt, and sand layers.

Groundwater was not encountered in the onsite borings to a maximum depth of about 61.5 feet below the existing ground surface. According to the Seismic Hazard Zones Report for the Camarillo 7.5-Minute Quadrangle, Ventura County, California (CGS, 2002), the depth of historical high groundwater is estimated to be deeper than 70 feet. It appears that groundwater will not encroach within 10 vertical feet of the bottoms of the seepage pits. See the attached Historical High Groundwater Map. It should be noted that fluctuations in groundwater levels may occur because of variations in rainfall, regional climate, and other factors.

Seepage Pit Performance Testing

After drilling, continuous stems of 3-inch diameter perforated PVC pipes were placed in the borings, and gravel packs were established between the walls of the annulus and the pipes to prevent caving. The borings were then pre-saturated by filling the borings with water. The borings were kept full of water for a period of one hour.

On the following days, falling head performance tests were performed by partially filling the test hole to near the top of the effective pit depth with water, and recording the drop in the water surface every few minutes for a few hours. The borings were essentially dry when the final readings were taken.

Hydrometer Testing

The gradation characteristics of certain samples were evaluated by hydrometer (in accordance with ASTM D 7928) and sieve analysis procedures. The samples were soaked in water until individual soil particles were separated, then washed on the No. 200 mesh sieve, oven dried, weighed to calculate the percent passing the No. 200 sieve, and mechanically sieved. Additionally, hydrometer analyses were performed to assess the distribution of the particles that passed the No. 200 screen. The hydrometer portions of the tests were run using sodium hexametaphosphate as a dispersing agent.

Performance Test (Absorption) Rate Determination

According to the referenced Ventura County OWTS Technical Manual, there are two methods for calculating the percolation rate: 1) minimum absorption rate from field data, assuming that it varies by less than 15 percent from the previous reading, or 2) weighted absorption rate based on the UPC Soil Types (see attached diagrams) from the hydrometer testing of the soils encountered in the test borings.

The minimum absorption rate based on field data is 3.4 gallons per square foot per day. The minimum absorption rate based on UPC soil type is 0.83 gallons per square foot per day. Based on these data, the tested absorption rate should be 0.83 gallons per square foot per day.

Limitations and Uniformity of Conditions

The analyses and recommendations submitted herein are based upon the data provided in the referenced site-specific reports. If variations from the assumed conditions appear evident, it will be necessary to reevaluate the recommendations of this report.

The scope of services did not include any environmental assessment or investigation for the presence or absence of wetlands, hazardous or toxic materials in the soil, surface water, groundwater or air, on, below, or around this site. Any statements in this report or on the soil boring logs regarding odors noted, unusual or suspicious items or conditions observed, are strictly for the information of the client.

Findings of this report are valid as of this date; however, changes in conditions of a property can occur with passage of time whether they be due to natural processes or works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur whether they result from legislation or broadening of knowledge. Accordingly, findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of 1 year.

In the event that any changes in the nature, design, or location of the structure and other improvements are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

This update report is issued with the understanding that it is the responsibility of the Owner, or of his representative to ensure that the information and recommendations contained herein are called to the attention of the Architect and Engineers for the project and incorporated into the plan and that the necessary steps are taken to see that the Contractor and Subcontractors carry out such recommendations in the field.

As the Geotechnical Engineers for this project, Earth Systems Pacific has striven to provide services in accordance with generally accepted geotechnical engineering practices in this community at this time. No warranty or guarantee is expressed or implied. This report was prepared for the exclusive use of the Client for the purposes stated in this document for the referenced project only. No third party may use or rely on this report without express written authorization from Earth Systems Pacific for such use or reliance.

It is recommended that Earth Systems Pacific be provided the opportunity for a general review of final design and specifications in order that earthwork and foundation recommendations

may be properly interpreted and implemented in the design and specifications. If Earth Systems Pacific is not accorded the privilege of making this recommended review, it can assume no responsibility for misinterpretation of the recommendations contained herein.

Please call if you have any questions, or if we can be of further service.

Respectfully submitted,

EARTH SYSTEMS PACIFIC

mlu

September 24, 2019

Meng Wei Lu
Civil Engineer

REGISTERED PROFESSIONAL ENGINEER
MENG WEI LU
C 89106
Exp 9/30/20
CIVIL
STATE OF CALIFORNIA

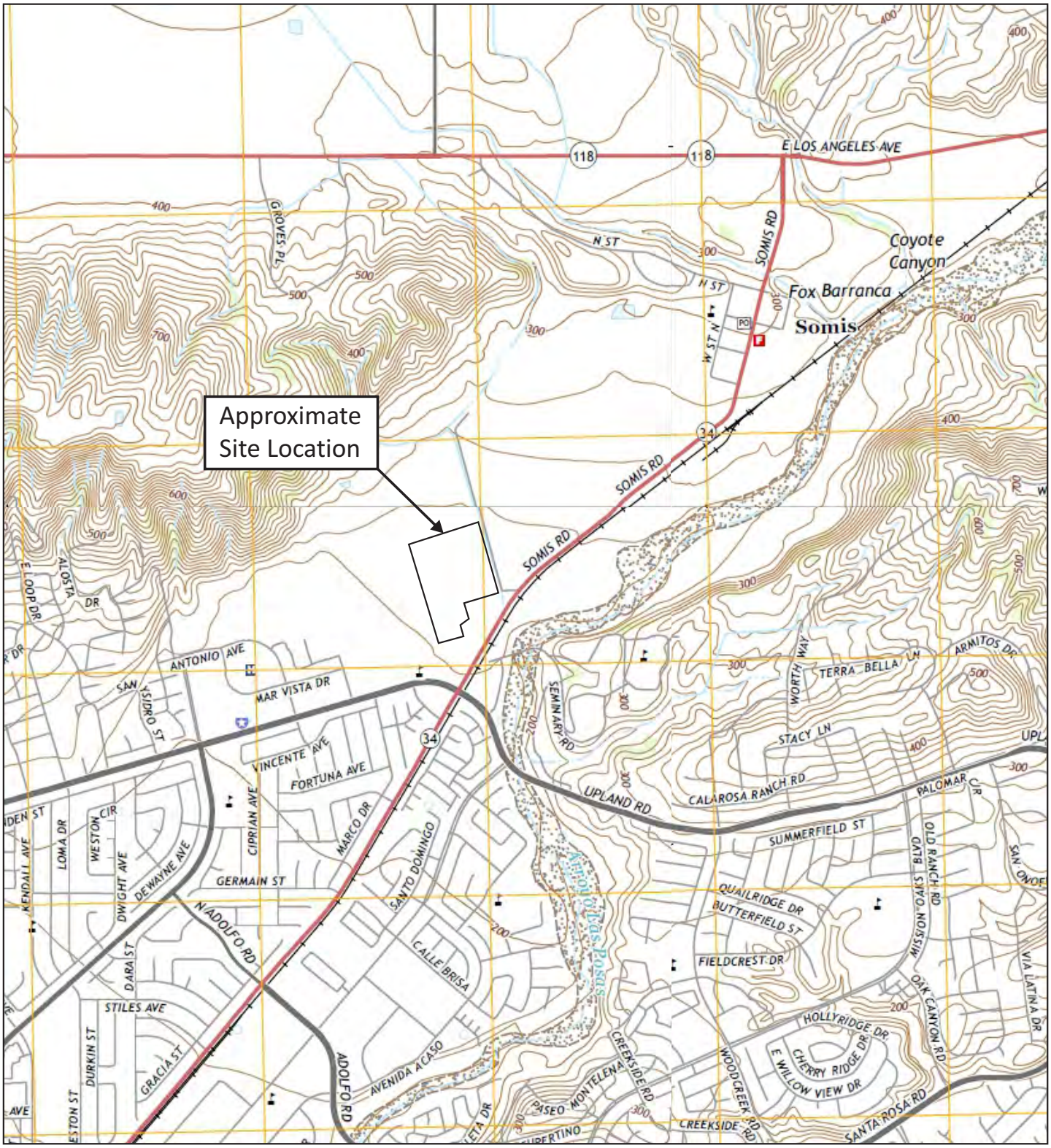
Reviewed and Approved

Todd J. Tranby
Engineering Geologist

PROFESSIONAL GEOLOGIST
TODD J. TRANBY
No. 2078
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

Attachments:
Vicinity Map
Regional Geologic Map 1 (Dibblee)
Regional Geologic Map 2 (USGS/CGS [SCAMP])
Seismic Hazard Zones Map
Historical High Groundwater Map
Logs of Borings
Performance Test Location Map
Performance Test Data Worksheet
Hydrometer Test Results
Hydrometer Test Plots on Soil Classification Chart

Copies:
4 - Client (3 mail, 1 email)
1 - Project File



*Taken from USGS Topo Maps, Newbury Park, Moorpark, Santa Paula, and Camarillo Quadrangles, California, 2015.

Approximate Scale: 1" = 2,000'

0 2,000' 4,000'

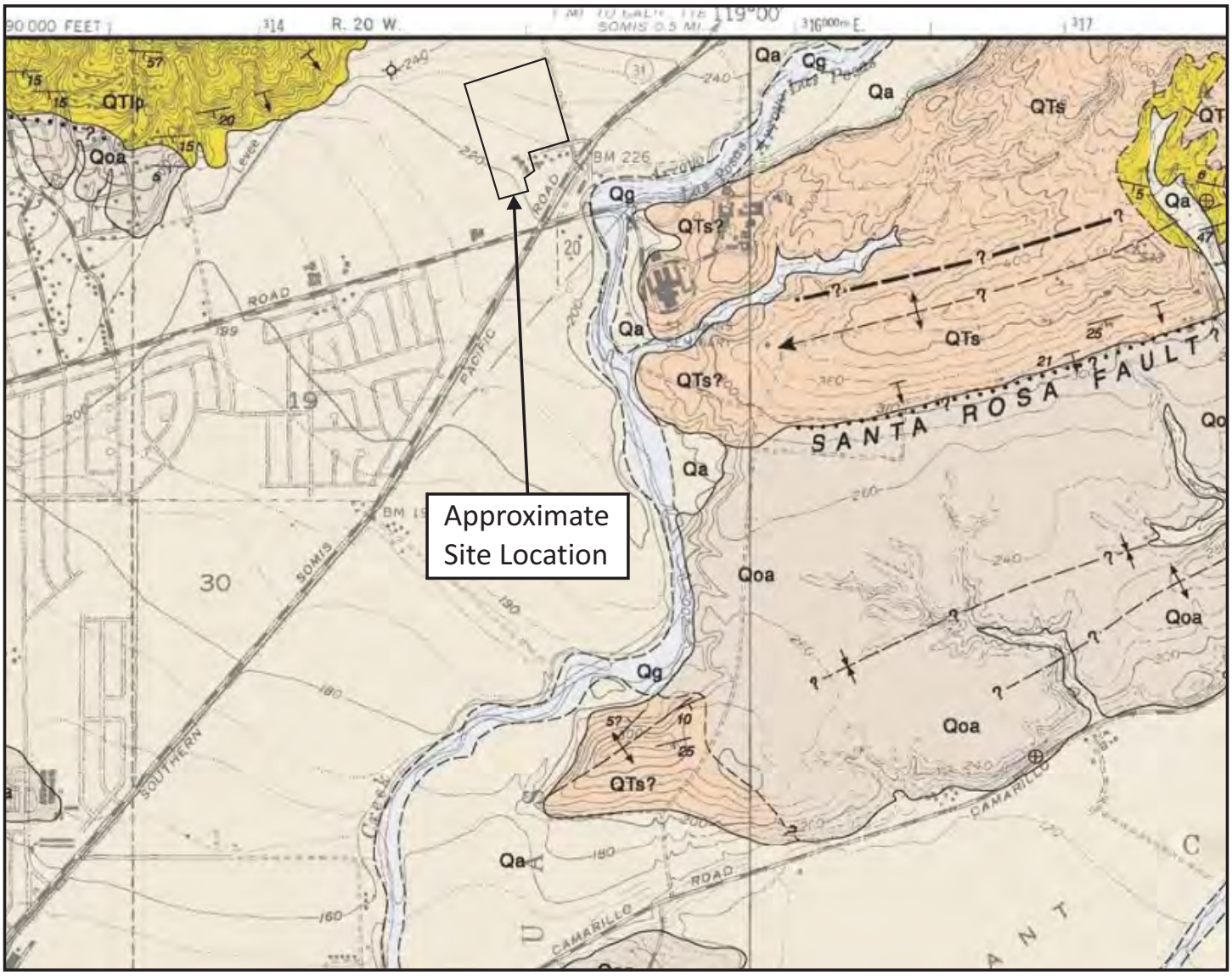
N

VICINITY MAP

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001



*Taken from Dibblee, Jr., Geologic Map of The Camarillo and Newbury Park Quadrangles, Ventura County, California, 1990, DF-28.

GEOLOGIC SYMBOLS

not all symbols shown on each map

FORMATION CONTACT dashed where inferred or indefinite, dotted where concealed

MEMBER CONTACT between units of a formation; ····· Prominent bed

CONTACT BETWEEN SURFICIAL SEDIMENTS located only approximately in places

FAULT: Dashed where indefinite or inferred, dotted where concealed, queried where existence is doubtful. Parallel arrows indicate inferred relative lateral movement. Relative vertical movement is shown by U/D (U=upthrown side, D=downthrown side). Short arrow indicates dip of fault plane. Sawteeth are on upper plate of low angle thrust fault.

FOLDS: overturned ANTICLINE SYNCLINE

arrow on axial trace of fold indicates direction of plunge; dotted where concealed by surficial sediments

Strike and dip of sedimentary rocks: inclined; inclined (approximate); overturned; horizontal; vertical

Strike and dip of metamorphic or igneous rock foliation or flow banding or compositional layers: inclined; inclined (approximate); vertical; overturned

OTHER SYMBOLS: Direction of landslide movement; outline of water bodies shown on map; water well; oil well; springs

LEGEND

af / Qg / Qf / Qa

SURFICIAL SEDIMENTS

af *Artificial fill*
Qg *Stream channel sand and gravel*
Qf *Alluvial fan gravel and sand, locally slightly indurated*
Qa *Alluvium: gravel, sand and clay of flatlands*

Approximate Scale: 1" = 2,000’

0 2,000’ 4,000’

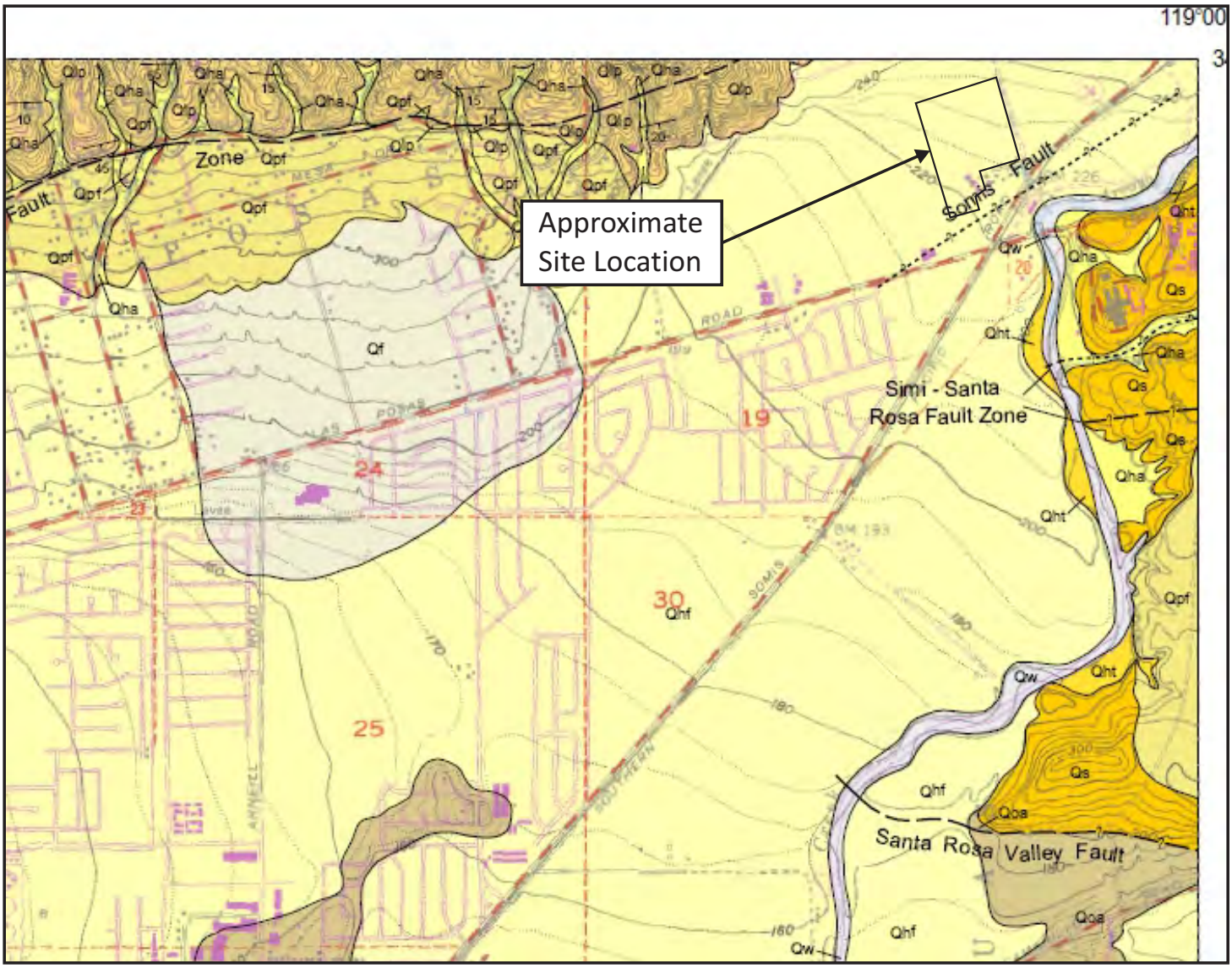
N

REGIONAL GEOLOGIC MAP 1

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001



*Taken from USGS, SCAMP Geologic Map of the Camarillo 7.5' Quadrangle, Ventura County, California, 2004.

MAP SYMBOLS

- Contact between map units - Generally approximately located or inferred, dotted where concealed.
- Contact between similar map units of different relative age - Recognized by scour and incised channelling features. Generally approximately located.
- Fault - Generally approximately located or inferred, dotted where concealed, queried where location is uncertain.
- Axis of anticline
- Axis of syncline
- Strike and dip of bedding.
- Landslide - Arrows indicate principal direction of movement, queried where existence is questionable (some geologic features are drawn within questionable landslides); hachured where headscarp is mappable.

Southern California USGS SCAMP CDMG Areal Mapping Project

N

Qhf: Alluvial fan deposits (Holocene)

Approximate Scale: 1" = 2,000'

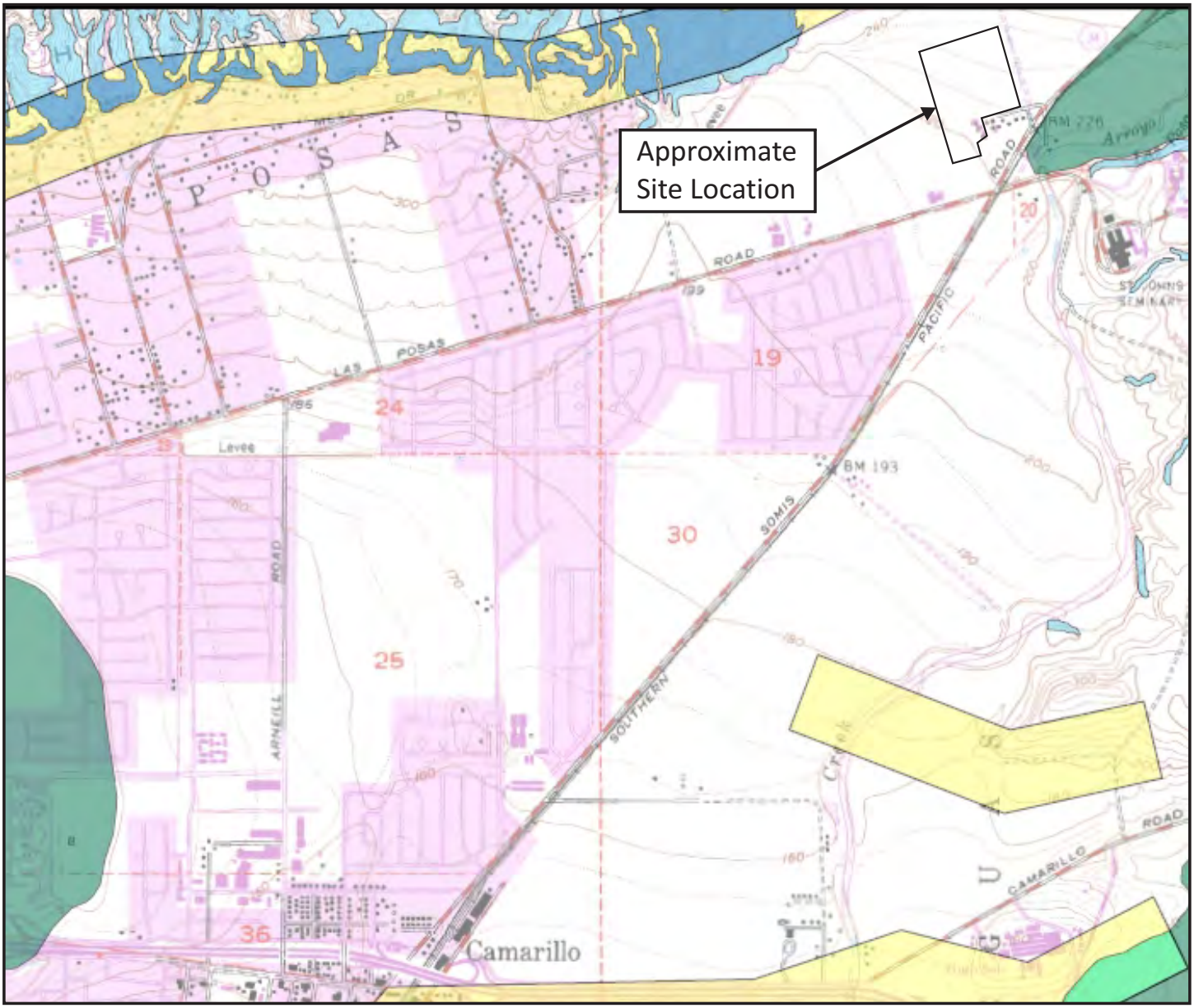
0 2,000' 4,000'

REGIONAL GEOLOGIC MAP 2

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001



EARTHQUAKE FAULT ZONES

Delineated in compliance with
Chapter 7.5 Division 2 of the California Public Resources Code
(Alquist-Priolo Earthquake Fault Zoning Act)

OFFICIAL MAP

Released: May 1, 1998

SEISMIC HAZARD ZONES

Delineated in compliance with
Chapter 7.8 Division 2 of the California Public Resources Code
(Seismic Hazards Mapping Act)

OFFICIAL MAP

Released: February 7, 2002

OVERLAPPING EARTHQUAKE FAULT AND SEISMIC HAZARD ZONES

Overlap of Earthquake Fault Zone and Liquefaction Zone
Areas that are covered by both Earthquake Fault Zone and Liquefaction Zone.

Overlap of Earthquake Fault Zone and Earthquake-Induced Landslide Zone
Areas that are covered by both Earthquake Fault Zone and Earthquake-Induced Landslide Zone.

Note: Mitigation methods differ for each zone –
AP Act only allows avoidance; Seismic Hazard Mapping Act allows mitigation by engineering/geotechnical design as well as avoidance.

Approximate Scale: 1" = 2,000'

0 2,000' 4,000'

N

SEISMIC HAZARD ZONES MAP

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001

*Taken from CGS, Seismic Hazard Zone Report For The Camarillo 7.5-Minute Quadrangle, Ventura County, California, 2002.

30 Depth to historically highest ground water level in feet

Valley / Mountains Boundary

Groundwater Barrier

Borehole Site

Approximate location of sand boils and lurch cracks observed following the Point Mugu Earthquake of February 21, 1973.

Approximate Scale: 1" = 2,000'

0 2,000' 4,000'

N

HISTORICAL HIGH GROUNDWATER MAP

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-20
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 1, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
5		■		1/2/3		CL			**ALLUVIUM:** Olive brown sandy clay with silt; medium stiff; moist
10		■		1/2/2		CL			**ALLUVIUM:** Dark yellow brown silty clay; soft; moist.
15		■		2/4/3		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand and minor caliche; medium stiff; moist.
20		■		2/2/4		CL			**ALLUVIUM:** Dark yellow brown sandy clay with silt and minor caliche; medium stiff; moist.
25		■		4/6/6		SM			**ALLUVIUM:** Pale yellow brown silty fine sand; medium dense; damp.
30		■		2/3/4		ML			**ALLUVIUM:** Yellow brown sandy silt ; medium stiff; damp to moist.
35		■		2/4/6		CL			**ALLUVIUM:** Dark yellow brown sandy clay with silt; stiff; moist.

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-20 (Continued)
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 1, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
40		■		3/4/7		ML			**ALLUVIUM:** Dark yellow brown sandy silt with clay; stiff; moist.
45		■		3/6/5		ML			**ALLUVIUM:** Pale yellow brown sandy silt with clay; stiff; damp to moist.
50		■		4/5/5		SM			**ALLUVIUM:** Dark yellow brown silty sand; medium dense; damp to moist.
55						SM			Thin lense of gravel at 55.0'
60		■		9/7/16		SP-SM			**ALLUVIUM:** Yellow brown poorly-graded fine sand to silty sand; medium dense; damp.
65									Total Depth: 61.5 feet. No Groundwater Encountered.
70									
75									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-21
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 1, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
5		■		1/2/3		CL			**ALLUVIUM:** Olive brown silty clay with sand; medium stiff; moist.
10		■		1/2/1		CL			**ALLUVIUM:** Olive brown silty clay; soft; very moist.
15		■		2/2/2		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand and minor caliche; soft; moist.
20		■		2/3/3		CL			**ALLUVIUM:** Dark yellow brown silty clay with minor caliche; medium stiff; moist.
25		■		3/3/5		ML			**ALLUVIUM:** Dark yellow brown sandy silt with clay; medium stiff; moist.
30		■		4/2/3		ML			**ALLUVIUM:** Dark yellow brown sandy silt; medium stiff; moist
35		■		4/5/5		SM			**ALLUVIUM:** Dark yellow brown silty sand; medium dense; moist.

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-21 (Continued)
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 1, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
40		■		2/5/5		ML			**ALLUVIUM:** Dark yellow brown sandy silt with clay; stiff; moist.
45		■		2/4/5		SM			**ALLUVIUM:** Dark yellow brown silty sand; loose; moist.
50		■		5/7/5		SM			**ALLUVIUM:** Dark yellow brown silty sand; medium dense; moist.
55									Total Depth: 51.5 feet. No Groundwater Encountered.
60									
65									
70									
75									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-22
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 2, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						CL			**ALLUVIUM:** Olive brown silty clay.
5		■		1/2/3		CL			**ALLUVIUM:** Dark yellow brown silty clay; medium stiff; moist.
10		■		1/2/3		CL			**ALLUVIUM:** Dark yellow brown silty clay; medium stiff; moist.
15		■		1/2/2		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand and minor caliche; soft; moist.
20		■		1/2/2		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand and minor caliche; soft; moist.
25		■		3/3/5		ML			**ALLUVIUM:** Yellow brown sandy silt with clay; medium stiff; moist. Silty fine sand at 26 feet.
30		■		3/3/3		ML			**ALLUVIUM:** Yellow brown sandy silt with clay; medium stiff; moist.
35		■		5/4/4		ML			**ALLUVIUM:** Dark yellow brown sandy silt with clay; medium stiff; moist.

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-22 (Continued)
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 2, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
40		■		3/4/5		ML			**ALLUVIUM:** Dark yellow brown sandy silt with clay; stiff; moist.
45		■		3/4/6		ML			**ALLUVIUM:** Dark yellow brown sandy silt with clay; stiff; moist.
50		■		3/4/7		ML			**ALLUVIUM:** Dark yellow brown sandy silt with clay; stiff; moist.
55									Total Depth: 51.5 feet. No Groundwater Encountered. Installed 50 feet of 3" perforated pipe and gravel backfill.
60									
65									
70									
75									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-23
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 2, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						CL			**ALLUVIUM:** Olive brown silty clay.
5		■		1/2/4		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand; medium stiff; moist.
10		■		2/2/3		CL			**ALLUVIUM:** Dark yellow brown silty clay; medium stiff; moist.
15		■		1/2/3		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand and minor caliche; medium stiff; moist.
20		■		2/2/4		ML			**ALLUVIUM:** Dark yellow brown clayey silt with sand; medium stiff; moist.
25		■		2/2/2		ML			**ALLUVIUM:** Brown sandy silt with clay; soft; moist.
30		■		3/5/4		ML			**ALLUVIUM:** Brown sandy silt; stiff; moist.
35		■		3/3/6		ML			**ALLUVIUM:** Brown clayey silt with sand; stiff; moist.

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-23 (Continued)
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 2, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
40		■		3/4/5		ML			**ALLUVIUM:** Brown sandy silt with clay; stiff; moist.
45		■		4/4/5		SM			**ALLUVIUM:** Yellow brown silty fine sand; loose; moist.
50		■		3/5/6		ML			**ALLUVIUM:** Dark yellow brown clayey silt with sand; stiff; moist.
55									
60		■		4/10/25		SM			**ALLUVIUM:** Yellow brown silty sand; dense; moist.
65									Total Depth: 61.5 feet. No Groundwater Encountered. Backfilled to 49 feet. Installed 50 feet of 3" perforated pipe and gravel backfill.
70									
75									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-24
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 2, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
5		■		3/2/2		CL			**ALLUVIUM:** Dark yellow brown silty clay; soft; moist.
10		■		1/2/3		CL			**ALLUVIUM:** Yellow brown silty clay with minor caliche; medium stiff; moist.
15		■		2/2/3		CL			**ALLUVIUM:** Olive brown silty clay; minor caliche;medium stiff; moist.
20		■		2/2/3		ML			**ALLUVIUM:** Interbeds of clayey silt; medium stiff; moist.
25		■		2/2/3		ML			**ALLUVIUM:** Yellow brown sandy silt with clay; medium stiff; moist.
30		■		5/4/4		SM			**ALLUVIUM:** Yellow brown silty fine sand; loose; damp to moist.
35		■		2/4/4		ML			**ALLUVIUM:** Yellow brown clayey silt with sand; medium stiff; moist.

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-24 (Continued)
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 2, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
40		■		4/3/4		ML			**ALLUVIUM:** Yellow brown clayey silt with sand; medium stiff; moist.
45		■		5/5/6		ML			**ALLUVIUM:** Yellow brown sandy silt with clay; stiff; moist.
50		■		3/4/7		ML			**ALLUVIUM:** Yellow brown sandy silt with clay; stiff; moist.
55									Total Depth: 51.5 feet. No Groundwater Encountered. Installed 50 feet of 3" perforated pipe and gravel backfill.
60									
65									
70									
75									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-25
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 2, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						ML			**ALLUVIUM:** Olive brown clayey silt; dry.
5		■		1/2/3		ML			**ALLUVIUM:** Yellow brown clayey silt; medium stiff; moist.
10		■		2/1/2		ML			**ALLUVIUM:** Yellow brown clayey silt; soft; very moist.
15		■		1/2/2		ML			**ALLUVIUM:** Yellow clayey silt with minor caliche; soft; moist.
20		■		1/2/3		ML			**ALLUVIUM:** Yellow clayey silt with minor caliche; firm; moist.
25		■		1/2/2		ML			**ALLUVIUM:** Yellow brown clayey silt with sand; soft; moist.
30		■		2/3/3		ML			**ALLUVIUM:** Yellow brown sandy silt; medium stiff; moist.
35		■		2/3/3		ML			**ALLUVIUM:** Dark yellow brown clayey silt; medium stiff; moist.

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

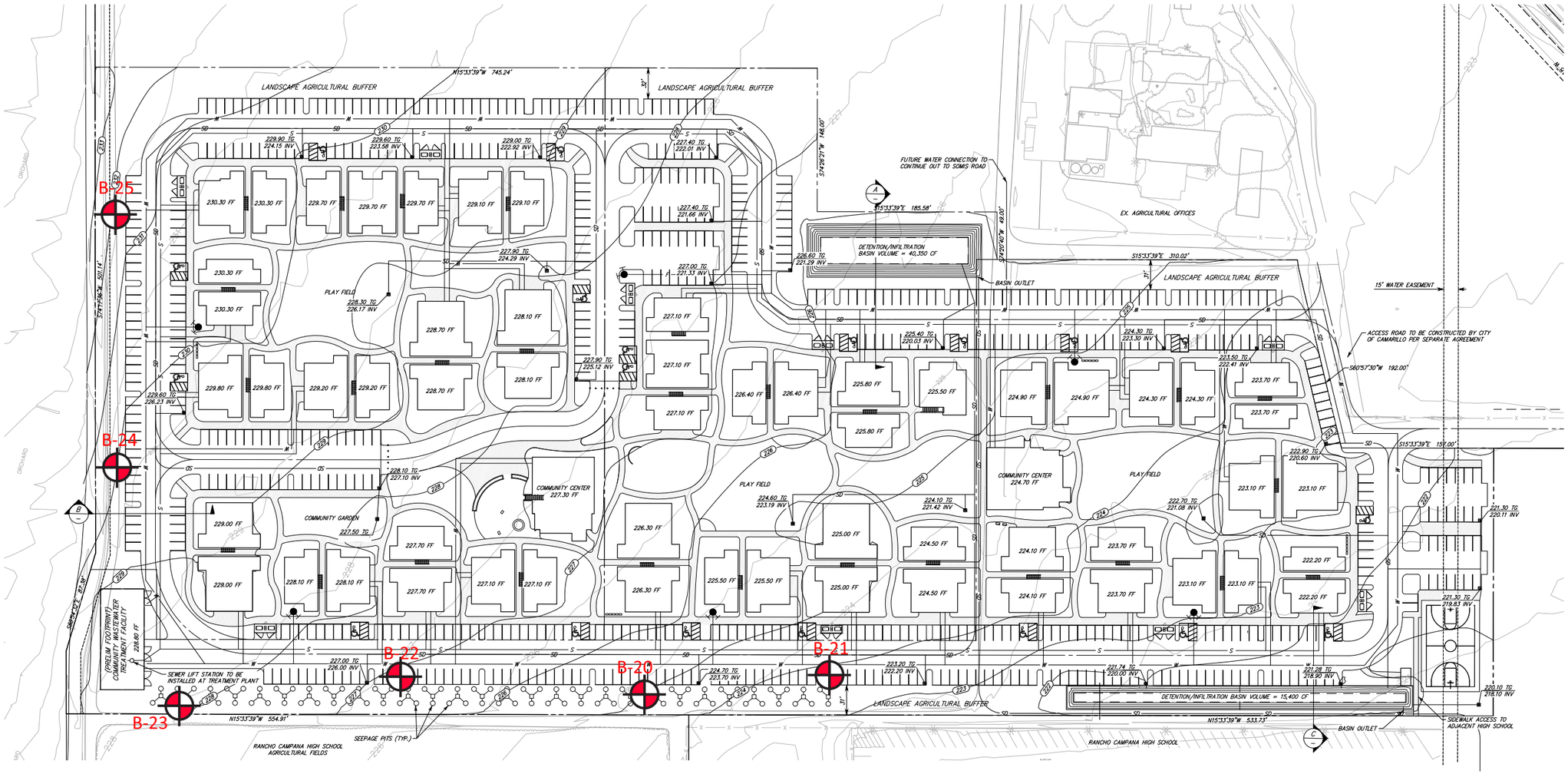
Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-25 (Continued)
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 2, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
40		■		2/4/4		ML			**ALLUVIUM:** Yellow brown sandy silt with clay; medium stiff; moist.
45		■		4/4/5		ML			**ALLUVIUM:** Yellow brown sandy silt; stiff; moist.
50		■		2/8/10		ML			**ALLUVIUM:** Yellow brown sandy silt; very stiff; moist.
55									
60		■		7/11/14		SM			**ALLUVIUM:** Pale yellow brown silty fine sand; medium dense; damp to moist.
65									Total Depth: 61.5 feet. No Groundwater Encountered. Installed 50 feet of 3" perforated pipe and gravel backfill.
70									
75									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.



B-25 : Approximate locations of performance tests.

N

Approximate Scale: 1" = 120'

0 120' 240'

PERFORMANCE TEST LOCATION MAP

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001

SEEPAGE PIT PERFORMANCE TEST DATA WORKSHEET

Location - Somis Ranch	**Date Tested - July 17, 2019**	
Test Performed By - Scott Calvert	**Hole Depth (ft) -**	**50**
Date Presaturated - July 16, 2019	**Hole Diameter (in) -**	**8**
B-20	**Pipe Diameter (in)**	**3**

This spreadsheet calculates absorption rate by dividing the volume of water absorbed in the time period by the surface area of the test hole and by the time interval. The volume of water is adjusted for the gravel pack between the pipe and the borehole sidewalls.

Time	Change In Time	Minutes	**Depth To Water (Feet)**	Water Drop (Feet)	Depth of Water Left in Hole (Feet)	Average Head (Feet)	Absorption Rate (Gal/ft^2/day)
11:13			**19.74**		30.26		
11:15	0:02	2	**22.39**	2.65	27.61	28.935	36.08
11:17	0:02	2	**25.1**	2.71	24.9	26.255	40.64
11:19	0:02	2	**29.04**	3.94	20.96	22.93	67.59
11:21	0:02	2	**32.80**	3.76	17.2	19.08	77.40
11:23	0:02	2	**36.05**	3.25	13.95	15.575	81.80
11:25	0:02	2	**37.93**	1.88	12.07	13.01	56.53
11:29	0:04	4	**41.35**	3.42	8.65	10.36	64.36
11:33	0:04	4	**43.81**	2.46	6.19	7.42	64.24
11:37	0:04	4	**45.74**	1.93	4.26	5.225	70.91
11:41	0:04	4	**47.01**	1.27	2.99	3.625	66.35
11:45	0:04	4	**50.00**	2.99	0	1.495	356.47

SEEPAGE PIT PERFORMANCE TEST DATA WORKSHEET

Location - Somis Ranch		**Date Tested - July 17, 2019**	
Test Performed By - Scott Calvert		**Hole Depth (ft) -**	**50**
Date Presaturated - July 16, 2019		**Hole Diameter (in) -**	**8**
B-21		**Pipe Diameter (in)**	**3**

This spreadsheet calculates absorption rate by dividing the volume of water absorbed in the time period by the surface area of the test hole and by the time interval. The volume of water is adjusted for the gravel pack between the pipe and the borehole sidewalls.

Time	Change In Time	Minutes	**Depth To Water (Feet)**	Water Drop (Feet)	Depth of Water Left in Hole (Feet)	Average Head (Feet)	Absorption Rate (Gal/ft^2/day)
9:31			**18.25**		31.75		
9:33	0:02	2	**23.20**	4.95	26.8	29.275	66.61
9:35	0:02	2	**28.35**	5.15	21.65	24.225	83.65
9:37	0:02	2	**32.03**	3.68	17.97	19.81	72.99
9:39	0:02	2	**35.04**	3.01	14.96	16.465	71.71
9:41	0:02	2	**36.15**	1.11	13.85	14.405	30.18
9:43	0:02	2	**38.09**	1.94	11.91	12.88	58.91
9:45	0:02	2	**40.25**	2.16	9.75	10.83	77.82
9:47	0:02	2	**41.50**	1.25	8.5	9.125	53.30
9:49	0:02	2	**42.35**	0.85	7.65	8.075	40.86
9:51	0:02	2	**43.19**	0.84	6.81	7.23	45.00
9:53	0:02	2	**43.65**	0.46	6.35	6.58	27.01
9:55	0:02	2	**44.10**	0.45	5.9	6.125	28.34
9:59	0:04	4	**45.03**	0.93	4.97	5.435	32.89
10:03	0:04	4	**45.70**	0.67	4.3	4.635	27.64
10:08	0:05	5	**46.60**	0.9	3.4	3.85	35.51
10:13	0:05	5	**47.25**	0.65	2.75	3.075	31.78
10:18	0:05	5	**47.70**	0.45	2.3	2.525	26.50
10:23	0:05	5	**48.08**	0.38	1.92	2.11	26.45
10:28	0:05	5	**48.30**	0.22	1.7	1.81	17.64
10:33	0:05	5	**48.55**	0.25	1.45	1.575	22.75
10:53	0:20	20	**49.10**	0.55	0.9	1.175	16.24
11:27	0:34	34	**50.00**	0.9	0	0.45	34.01
13:50	2:23	143	**49.58**	-0.42	0.42	0.21	-6.18
14:20	0:30	30	**50.00**	0.42	0	0.21	29.45

SEEPAGE PIT PERFORMANCE TEST DATA WORKSHEET

Location - Somis Ranch		**Date Tested - July 16, 2019**	
Test Performed By - Scott Calvert		**Hole Depth (ft) -**	**50**
Date Presaturated - July 15, 2019		**Hole Diameter (in) -**	**8**
B-22		**Pipe Diameter (in)**	**3**

This spreadsheet calculates absorption rate by dividing the volume of water absorbed in the time period by the surface area of the test hole and by the time interval. The volume of water is adjusted for the gravel pack between the pipe and the borehole sidewalls.

Time	Change In Time	Minutes	**Depth To Water (Feet)**	Water Drop (Feet)	Depth of Water Left in Hole (Feet)	Average Head (Feet)	Absorption Rate (Gal/ft^2/day)
10:25			**5.00**		45		
10:27	0:02	2	**9.84**	4.84	40.16	42.58	44.86
10:29	0:02	2	**14.75**	4.91	35.25	37.705	51.37
10:31	0:02	2	**19.20**	4.45	30.8	33.025	53.12
10:33	0:02	2	**23.90**	4.7	26.1	28.45	65.07
10:35	0:02	2	**26.40**	2.5	23.6	24.85	39.59
10:37	0:02	2	**28.51**	2.11	21.49	22.545	36.81
10:39	0:02	2	**30.43**	1.92	19.57	20.53	36.76
10:41	0:02	2	**32.05**	1.62	17.95	18.76	33.91
10:43	0:02	2	**33.15**	1.1	16.85	17.4	24.81
10:45	0:02	2	**34.79**	1.64	15.21	16.03	40.12
10:50	0:05	5	**37.91**	3.12	12.09	13.65	35.79
10:55	0:05	5	**39.56**	1.65	10.44	11.265	22.87
11:00	0:05	5	**41.18**	1.62	8.82	9.63	26.21
11:05	0:05	5	**42.28**	1.1	7.72	8.27	20.66
11:15	0:10	10	**43.79**	1.51	6.21	6.965	16.78
11:25	0:10	10	**44.64**	0.85	5.36	5.785	11.32
11:35	0:10	10	**45.06**	0.42	4.94	5.15	6.26
11:50	0:15	15	**46.74**	1.68	3.26	4.1	20.80
12:10	0:20	20	**48.10**	1.36	1.9	2.58	19.62
12:30	0:20	20	**48.44**	0.34	1.56	1.73	7.10
12:50	0:20	20	**48.80**	0.36	1.2	1.38	9.22
13:20	0:30	30	**49.26**	0.46	0.74	0.97	10.69
13:50	0:30	30	**49.58**	0.32	0.42	0.58	11.32
14:20	0:30	30	**50.00**	0.42	0	0.21	29.45

SEEPAGE PIT PERFORMANCE TEST DATA WORKSHEET

Location - Somis Ranch		**Date Tested - July 16, 2019**	
Test Performed By - Scott Calvert		**Hole Depth (ft) -**	**49**
Date Presaturated - July 15, 2019		**Hole Diameter (in) -**	**8**
B-23		**Pipe Diameter (in)**	**3**

This spreadsheet calculates absorption rate by dividing the volume of water absorbed in the time period by the surface area of the test hole and by the time interval. The volume of water is adjusted for the gravel pack between the pipe and the borehole sidewalls.

Time	Change In Time	Minutes	**Depth To Water (Feet)**	Water Drop (Feet)	Depth of Water Left in Hole (Feet)	Average Head (Feet)	Absorption Rate (Gal/ft^2/day)
12:28			**6.00**		43		
12:30	0:02	2	**11.60**	5.6	37.4	40.2	54.97
12:32	0:02	2	**16.18**	4.58	32.82	35.11	51.44
12:34	0:02	2	**20.21**	4.03	28.79	30.805	51.55
12:36	0:02	2	**22.70**	2.49	26.3	27.545	35.60
12:38	0:02	2	**24.97**	2.27	24.03	25.165	35.50
12:40	0:02	2	**26.82**	1.85	22.18	23.105	31.50
12:42	0:02	2	**28.08**	1.26	20.92	21.55	22.99
12:44	0:02	2	**29.24**	1.16	19.76	20.34	22.41
12:46	0:02	2	**30.20**	0.96	18.8	19.28	19.56
12:48	0:02	2	**30.80**	0.6	18.2	18.5	12.74
12:52	0:04	4	**32.60**	1.8	16.4	17.3	20.42
12:56	0:04	4	**33.60**	1	15.4	15.9	12.33
13:00	0:04	4	**34.93**	1.33	14.07	14.735	17.68
13:04	0:04	4	**35.88**	0.95	13.12	13.595	13.68
13:08	0:04	4	**36.75**	0.87	12.25	12.685	13.41
13:20	0:12	12	**38.23**	1.48	10.77	11.51	8.37
13:35	0:15	15	**41.15**	2.92	7.85	9.31	16.28
13:50	0:15	15	**42.85**	1.7	6.15	7	12.53
14:05	0:15	15	**44.04**	1.19	4.96	5.555	10.99
14:20	0:15	15	**45.15**	1.11	3.85	4.405	12.83
14:35	0:15	15	**46.3**	1.15	2.7	3.275	17.65
8:35	6:00	360	**49**	2.7	0	1.35	3.92

SEEPAGE PIT PERFORMANCE TEST DATA WORKSHEET

Location - Somis Ranch		**Date Tested - July 15, 2019**	
Test Performed By - Scott Calvert		**Hole Depth (ft) -**	**48.6**
Date Presaturated -		**Hole Diameter (in) -**	**8**
B-24		**Pipe Diameter (in)**	**3**

This spreadsheet calculates absorption rate by dividing the volume of water absorbed in the time period by the surface area of the test hole and by the time interval. The volume of water is adjusted for the gravel pack between the pipe and the borehole sidewalls.

Time	Change In Time	Minutes	**Depth To Water (Feet)**	Water Drop (Feet)	Depth of Water Left in Hole (Feet)	Average Head (Feet)	Absorption Rate (Gal/ft^2/day)
11:05			**5.00**		43.6		
11:08	0:03	3	**9.55**	4.55	39.05	41.325	28.97
11:10	0:02	2	**12.76**	3.21	35.84	37.445	33.81
11:12	0:02	2	**15.18**	2.42	33.42	34.63	27.55
11:15	0:03	3	**18.55**	3.37	30.05	31.735	27.90
11:18	0:03	3	**21.08**	2.53	27.52	28.785	23.08
11:21	0:03	3	**23.52**	2.44	25.08	26.3	24.35
11:24	0:03	3	**25.15**	1.63	23.45	24.265	17.62
11:27	0:03	3	**26.60**	1.45	22	22.725	16.73
11:32	0:05	5	**28.88**	2.28	19.72	20.86	17.18
11:42	0:10	10	**32.59**	3.71	16.01	17.865	16.30
11:52	0:10	10	**35.46**	2.87	13.14	14.575	15.43
12:02	0:10	10	**37.69**	2.23	10.91	12.025	14.49
12:12	0:10	10	**39.39**	1.7	9.21	10.06	13.17
12:27	0:15	15	**41.31**	1.92	7.29	8.25	12.05
12:42	0:15	15	**42.74**	1.43	5.86	6.575	11.21
12:57	0:15	15	**43.99**	1.25	4.61	5.235	12.22
13:12	0:15	15	**44.69**	0.7	3.91	4.26	8.35
13:27	0:15	15	**45.35**	0.66	3.25	3.58	9.31
13:57	0:30	30	**46.18**	0.83	2.42	2.835	7.30
14:27	0:30	30	**46.85**	0.67	1.75	2.085	7.86
14:57	0:30	30	**47.11**	0.26	1.49	1.62	3.84
8:36	6:21	381	**48.60**	1.49	0	0.745	3.40

SEEPAGE PIT PERFORMANCE TEST DATA WORKSHEET

Location - Somis Ranch		**Date Tested - July 15, 2019**	
Test Performed By - Scott Calvert		**Hole Depth (ft) -**	**49**
Date Presaturated -		**Hole Diameter (in) -**	**8**
B-25		**Pipe Diameter (in)**	**3**

This spreadsheet calculates absorption rate by dividing the volume of water absorbed in the time period by the surface area of the test hole and by the time interval. The volume of water is adjusted for the gravel pack between the pipe and the borehole sidewalls.

Time	Change In Time	Minutes	**Depth To Water (Feet)**	Water Drop (Feet)	Depth of Water Left in Hole (Feet)	Average Head (Feet)	Absorption Rate (Gal/ft^2/day)
9:34			**5**		44		
9:44	0:10	10	**8.48**	3.48	40.52	42.26	6.50
9:54	0:10	10	**12.07**	3.59	36.93	38.725	7.31
10:04	0:10	10	**15.06**	2.99	33.94	35.435	6.66
10:14	0:10	10	**17.82**	2.76	31.18	32.56	6.68
10:29	0:15	15	**22.11**	4.29	26.89	29.035	7.76
10:44	0:15	15	**25.05**	2.94	23.95	25.42	6.07
10:59	0:15	15	**27.86**	2.81	21.14	22.545	6.54
11:14	0:15	15	**30.26**	2.4	18.74	19.94	6.31
11:29	0:15	15	**32.66**	2.4	16.34	17.54	7.16
11:44	0:15	15	**34.64**	1.98	14.36	15.35	6.74
11:59	0:15	15	**35.95**	1.31	13.05	13.705	4.99
12:29	0:30	30	**38.52**	2.57	10.48	11.765	5.69
12:59	0:30	30	**41.12**	2.6	7.88	9.18	7.35
13:29	0:30	30	**43.13**	2.01	5.87	6.875	7.54
13:59	0:30	30	**44.78**	1.65	4.22	5.045	8.36
14:29	0:30	30	**45.92**	1.14	3.08	3.65	7.89
14:59	0:30	30	**47.14**	1.22	1.86	2.47	12.22
8:31	6:28	388	**49**	1.86	0	0.93	3.46

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 20 @ 5'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	205.9
Corrected Wt., g:	205.9

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	109.9
Corrected Wt., g:	109.9
Calculation Factor	1.0990

Hydrometer Analysis for <#10 Material

Start time: 2:09:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	2:09:20 AM	84	23	4.6	79.4
1 hour	3:09:00 AM	63	23	4.6	58.4
6 hour	8:09:00 AM	35	23	4.6	30.4

% Gravel:	0.0
% Sand(2mm - 74µm):	27.8
% Silt(74µm- 5µm):	19.1
% Clay(5µm - 2µm):	25.4
% Clay(≤2µm):	27.7

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 20 @ 10'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	246.1
Corrected Wt., g:	246.1

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.2	0.08	99.92
#8	0.5	0.20	99.80
#10	1.0	0.41	99.59

Air Dry Hydro Sample Wt., g:	66.2
Corrected Wt., g:	66.2
Calculation Factor	0.6647

Hydrometer Analysis for <#10 Material

Start time: 2:00:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	2:00:20 AM	65	23	4.6	60.4
1 hour	3:00:00 AM	35	23	4.6	30.4
6 hour	8:00:00 AM	27	23	4.6	22.4

% Gravel:	0.1
% Sand(2mm - 74µm):	9.0
% Silt(74µm- 5µm):	45.2
% Clay(5µm - 2µm):	12.0
% Clay(≤2µm):	33.7

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 20 @ 15'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	325
Corrected Wt., g:	325.0

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.4	0.12	99.88
#10	0.4	0.12	99.88

Air Dry Hydro Sample Wt., g:	104.8
Corrected Wt., g:	104.8
Calculation Factor	1.0493

Hydrometer Analysis for <#10 Material

Start time: 2:02:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	2:02:20 AM	82	23	4.6	77.4
1 hour	3:02:00 AM	50	23	4.6	45.4
6 hour	8:02:00 AM	40	23	4.6	35.4

% Gravel:	0.0
% Sand(2mm - 74µm):	26.2
% Silt(74µm- 5µm):	30.5
% Clay(5µm - 2µm):	9.6
% Clay(≤2µm):	33.7

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 20 @ 20'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	427.2
Corrected Wt., g:	427.2

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.4	0.09	99.91
#8	1.5	0.35	99.65
#10	3.2	0.75	99.25

Air Dry Hydro Sample Wt., g:	119.7
Corrected Wt., g:	119.7
Calculation Factor	1.2060

Hydrometer Analysis for <#10 Material

Start time: 2:11:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	2:11:20 AM	78	23	4.6	73.4
1 hour	3:11:00 AM	58	23	4.6	53.4
6 hour	8:11:00 AM	43	23	4.6	38.4

% Gravel:	0.1
% Sand(2mm - 74µm):	39.0
% Silt(74µm- 5µm):	16.6
% Clay(5µm - 2µm):	12.5
% Clay(≤2µm):	31.8

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 20 @ 25'**
Soil Description: **SM**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	477.5
Corrected Wt., g:	477.5

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.2	0.04	99.96
#8	0.7	0.15	99.85
#10	1.0	0.21	99.79

Air Dry Hydro Sample Wt., g:	112.5
Corrected Wt., g:	112.5
Calculation Factor	1.1274

Hydrometer Analysis for <#10 Material

Start time: 1:39:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:39:20 AM	26	23	4.6	21.4
1 hour	2:39:00 AM	10	23	4.6	5.4
6 hour	7:39:00 AM	8	23	4.6	3.4

% Gravel:	0.0
% Sand(2mm - 74µm):	81.0
% Silt(74µm- 5µm):	14.2
% Clay(5µm - 2µm):	1.8
% Clay(≤2µm):	3.0

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 20 @ 30'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	410.5
Corrected Wt., g:	410.5

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.2	0.05	99.95

Air Dry Hydro Sample Wt., g:	125.6
Corrected Wt., g:	125.6
Calculation Factor	1.2566

Hydrometer Analysis for <#10 Material

Start time: 1:26:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:26:20 AM	70	23	4.6	65.4
1 hour	2:26:00 AM	18	23	4.6	13.4
6 hour	7:26:00 AM	14	23	4.6	9.4

% Gravel:	0.0
% Sand(2mm - 74µm):	48.0
% Silt(74µm- 5µm):	41.3
% Clay(5µm - 2µm):	3.2
% Clay(≤2µm):	7.5

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 20 @ 35'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	510.1
Corrected Wt., g:	510.1

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	97.9
Corrected Wt., g:	97.9
Calculation Factor	0.9790

Hydrometer Analysis for <#10 Material

Start time: 1:36:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:36:20 AM	69	23	4.6	64.4
1 hour	2:36:00 AM	40	23	4.6	35.4
6 hour	7:36:00 AM	9	23	4.6	4.4

% Gravel:	0.0
% Sand(2mm - 74µm):	34.2
% Silt(74µm- 5µm):	29.6
% Clay(5µm - 2µm):	31.7
% Clay(≤2µm):	4.5

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 20 @ 40'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	342.9
Corrected Wt., g:	342.9

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	109.3
Corrected Wt., g:	109.3
Calculation Factor	1.0930

Hydrometer Analysis for <#10 Material

Start time: 1:34:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:34:20 AM	75	24	4.4	70.6
1 hour	2:34:00 AM	33	24	4.4	28.6
6 hour	7:34:00 AM	9	24	4.4	4.6

% Gravel:	0.0
% Sand(2mm - 74µm):	35.4
% Silt(74µm- 5µm):	38.4
% Clay(5µm - 2µm):	22.0
% Clay(≤2µm):	4.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 20 @ 45'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	333.5
Corrected Wt., g:	333.5

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.3	0.09	99.91
#8	0.3	0.09	99.91
#10	0.3	0.09	99.91

Air Dry Hydro Sample Wt., g:	110.3
Corrected Wt., g:	110.3
Calculation Factor	1.1040

Hydrometer Analysis for <#10 Material

Start time: 1:28:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:28:20 AM	71	24	4.4	66.6
1 hour	2:28:00 AM	30	24	4.4	25.6
6 hour	7:28:00 AM	23	24	4.4	18.6

% Gravel:	0.1
% Sand(2mm - 74µm):	39.6
% Silt(74µm- 5µm):	37.1
% Clay(5µm - 2µm):	6.4
% Clay(≤2µm):	16.8

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 20 @ 50'**
Soil Description: **SM**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	523.6
Corrected Wt., g:	523.6

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.7	0.13	99.87
#4	1.3	0.25	99.75
#8	3.1	0.59	99.41
#10	4.3	0.82	99.18

Air Dry Hydro Sample Wt., g:	76.3
Corrected Wt., g:	76.3
Calculation Factor	0.7693

Hydrometer Analysis for <#10 Material

Start time: 1:54:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:54:20 AM	38	24	4.4	33.6
1 hour	2:54:00 AM	15	24	4.4	10.6
6 hour	7:54:00 AM	11	24	4.4	6.6

% Gravel:	0.3
% Sand(2mm - 74µm):	56.0
% Silt(74µm- 5µm):	29.9
% Clay(5µm - 2µm):	5.2
% Clay(≤2µm):	8.6

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 20 @ 60'**
Soil Description: **SP-SM**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	576.9
Corrected Wt., g:	576.9

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	4.3	0.75	99.25
3/8 inch	21.1	3.66	96.34
#4	48.8	8.46	91.54
#8	96.6	16.74	83.26
#10	117.6	20.38	79.62

Air Dry Hydro Sample Wt., g:	105.6
Corrected Wt., g:	105.6
Calculation Factor	1.3263

Hydrometer Analysis for <#10 Material

Start time: 1:52:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:52:20 AM	15	24	4.4	10.6
1 hour	2:52:00 AM	7	24	4.4	2.6
6 hour	7:52:00 AM	6	24	4.4	1.6

% Gravel:	8.5
% Sand(2mm - 74µm):	83.5
% Silt(74µm- 5µm):	6.0
% Clay(5µm - 2µm):	0.8
% Clay(≤2µm):	1.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 21 @ 5'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	297.7
Corrected Wt., g:	297.7

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	62.8
Corrected Wt., g:	62.8
Calculation Factor	0.6280

Hydrometer Analysis for <#10 Material

Start time: 9:15:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:15:20 AM	56	23	4.5	51.5
1 hour	10:15:00 AM	32	23	4.5	27.5
6 hour	3:15:00 PM	21	23	4.5	16.5

% Gravel:	0.0
% Sand(2mm - 74µm):	18.0
% Silt(74µm- 5µm):	38.2
% Clay(5µm - 2µm):	17.5
% Clay(≤2µm):	26.3

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 21 @ 10'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	331.8
Corrected Wt., g:	331.8

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	64.5
Corrected Wt., g:	64.5
Calculation Factor	0.6450

Hydrometer Analysis for <#10 Material

Start time: 7:40:48 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	7:41:08 AM	60	23	4.5	55.5
1 hour	8:40:48 AM	32	23	4.5	27.5
6 hour	1:40:48 PM	24	23	4.5	19.5

% Gravel:	0.0
% Sand(2mm - 74µm):	14.0
% Silt(74µm- 5µm):	43.4
% Clay(5µm - 2µm):	12.4
% Clay(≤2µm):	30.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 21 @ 15'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	312
Corrected Wt., g:	312.0

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.6	0.19	99.81
#10	0.7	0.22	99.78

Air Dry Hydro Sample Wt., g:	59.5
Corrected Wt., g:	59.5
Calculation Factor	0.5963

Hydrometer Analysis for <#10 Material

Start time: 8:40:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	8:40:20 AM	54	23	4.5	49.5
1 hour	9:40:00 AM	32	23	4.5	27.5
6 hour	2:40:00 PM	23	23	4.5	18.5

% Gravel:	0.0
% Sand(2mm - 74µm):	17.0
% Silt(74µm- 5µm):	36.9
% Clay(5µm - 2µm):	15.1
% Clay(≤2µm):	31.0

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 21 @ 20'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	332.6
Corrected Wt., g:	332.6

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.6	0.18	99.82
#10	1.6	0.48	99.52

Air Dry Hydro Sample Wt., g:	67.8
Corrected Wt., g:	67.8
Calculation Factor	0.6813

Hydrometer Analysis for <#10 Material

Start time: 9:10:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:10:20 AM	65	23	4.5	60.5
1 hour	10:10:00 AM	37	23	4.5	32.5
6 hour	3:10:00 PM	28	23	4.5	23.5

% Gravel:	0.0
% Sand(2mm - 74µm):	11.2
% Silt(74µm- 5µm):	41.1
% Clay(5µm - 2µm):	13.2
% Clay(≤2µm):	34.5

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 21 @ 25'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	390.2
Corrected Wt., g:	390.2

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.7	0.18	99.82
#8	1.6	0.41	99.59
#10	3.3	0.85	99.15

Air Dry Hydro Sample Wt., g:	63.3
Corrected Wt., g:	63.3
Calculation Factor	0.6384

Hydrometer Analysis for <#10 Material

Start time: 9:37:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:37:20 AM	44	23	4.5	39.5
1 hour	10:37:00 AM	19	23	4.5	14.5
6 hour	3:37:00 PM	6	23	4.5	1.5

% Gravel:	0.2
% Sand(2mm - 74µm):	37.9
% Silt(74µm- 5µm):	39.2
% Clay(5µm - 2µm):	20.4
% Clay(≤2µm):	2.3

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 21 @ 30'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	336.4
Corrected Wt., g:	336.4

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.5	0.15	99.85
#10	0.7	0.21	99.79

Air Dry Hydro Sample Wt., g:	63.3
Corrected Wt., g:	63.3
Calculation Factor	0.6343

Hydrometer Analysis for <#10 Material

Start time: 9:49:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:49:20 AM	49	23	4.5	44.5
1 hour	10:49:00 AM	12	23	4.5	7.5
6 hour	3:49:00 PM	11	23	4.5	6.5

% Gravel:	0.0
% Sand(2mm - 74µm):	29.8
% Silt(74µm- 5µm):	58.4
% Clay(5µm - 2µm):	1.6
% Clay(≤2µm):	10.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 21 @ 35'**
Soil Description: **SM**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	475.7
Corrected Wt., g:	475.7

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.2	0.04	99.96
#10	0.9	0.19	99.81

Air Dry Hydro Sample Wt., g:	80.4
Corrected Wt., g:	80.4
Calculation Factor	0.8055

Hydrometer Analysis for <#10 Material

Start time: 1:30:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:30:20 AM	39	23	4.5	34.5
1 hour	2:30:00 AM	9	23	4.5	4.5
6 hour	7:30:00 AM	7	23	4.5	2.5

% Gravel:	0.0
% Sand(2mm - 74µm):	57.2
% Silt(74µm- 5µm):	37.2
% Clay(5µm - 2µm):	2.5
% Clay(≤2µm):	3.1

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 21 @ 40'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	489.6
Corrected Wt., g:	489.6

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	63.8
Corrected Wt., g:	63.8
Calculation Factor	0.6380

Hydrometer Analysis for <#10 Material

Start time: 9:32:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:32:20 AM	40	23	4.5	35.5
1 hour	10:32:00 AM	14	23	4.5	9.5
6 hour	3:32:00 PM	12	23	4.5	7.5

% Gravel:	0.0
% Sand(2mm - 74µm):	44.4
% Silt(74µm- 5µm):	40.7
% Clay(5µm - 2µm):	3.1
% Clay(≤2µm):	11.8

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 21 @ 45'**
Soil Description: **SM**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	533.2
Corrected Wt., g:	533.2

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	66.7
Corrected Wt., g:	66.7
Calculation Factor	0.6670

Hydrometer Analysis for <#10 Material

Start time: 9:09:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:09:20 AM	20	23	4.5	15.5
1 hour	10:09:00 AM	9	23	4.5	4.5
6 hour	3:09:00 PM	8	23	4.5	3.5

% Gravel:	0.0
% Sand(2mm - 74µm):	76.8
% Silt(74µm- 5µm):	16.5
% Clay(5µm - 2µm):	1.5
% Clay(≤2µm):	5.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 21 @ 50'**
Soil Description: **SM**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	465.6
Corrected Wt., g:	465.6

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.2	0.04	99.96

Air Dry Hydro Sample Wt., g:	60.1
Corrected Wt., g:	60.1
Calculation Factor	0.6012

Hydrometer Analysis for <#10 Material

Start time: 1:31:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:31:20 AM	33	23	4.6	28.4
1 hour	2:31:00 AM	8	23	4.6	3.4
6 hour	7:31:00 AM	6.5	23	4.6	1.9

% Gravel:	0.0
% Sand(2mm - 74µm):	52.8
% Silt(74µm- 5µm):	41.5
% Clay(5µm - 2µm):	2.5
% Clay(≤2µm):	3.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 22 @ 5'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	225.5
Corrected Wt., g:	225.5

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.6	0.27	99.73

Air Dry Hydro Sample Wt., g:	73.4
Corrected Wt., g:	73.4
Calculation Factor	0.7360

Hydrometer Analysis for <#10 Material

Start time: 1:56:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:56:20 AM	68	23	4.6	63.4
1 hour	2:56:00 AM	40	23	4.6	35.4
6 hour	7:56:00 AM	34	23	4.6	29.4

% Gravel:	0.0
% Sand(2mm - 74µm):	13.9
% Silt(74µm- 5µm):	38.0
% Clay(5µm - 2µm):	8.2
% Clay(≤2µm):	39.9

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 22 @ 10'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	265.3
Corrected Wt., g:	265.3

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.6	0.23	99.77
#8	0.8	0.30	99.70
#10	2.3	0.87	99.13

Air Dry Hydro Sample Wt., g:	70.8
Corrected Wt., g:	70.8
Calculation Factor	0.7142

Hydrometer Analysis for <#10 Material

Start time: 2:10:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	2:10:20 AM	67	23	4.6	62.4
1 hour	3:10:00 AM	40	23	4.6	35.4
6 hour	8:10:00 AM	29	23	4.6	24.4

% Gravel:	0.2
% Sand(2mm - 74µm):	12.4
% Silt(74µm- 5µm):	37.8
% Clay(5µm - 2µm):	15.4
% Clay(≤2µm):	34.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 22 @ 15'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	280.4
Corrected Wt., g:	280.4

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.4	0.14	99.86
#8	0.5	0.18	99.82
#10	0.8	0.29	99.71

Air Dry Hydro Sample Wt., g:	73.4
Corrected Wt., g:	73.4
Calculation Factor	0.7361

Hydrometer Analysis for <#10 Material

Start time: 2:07:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	2:07:20 AM	66	23	4.6	61.4
1 hour	3:07:00 AM	43	23	4.6	38.4
6 hour	8:07:00 AM	32	23	4.6	27.4

% Gravel:	0.1
% Sand(2mm - 74µm):	16.5
% Silt(74µm- 5µm):	31.2
% Clay(5µm - 2µm):	15.0
% Clay(≤2µm):	37.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 22 @ 20'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	344
Corrected Wt., g:	344.0

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	61.7
Corrected Wt., g:	61.7
Calculation Factor	0.6170

Hydrometer Analysis for <#10 Material

Start time: 8:47:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	8:47:20 AM	51	23	4.6	46.4
1 hour	9:47:00 AM	29	23	4.6	24.4
6 hour	2:47:00 PM	20	23	4.6	15.4

% Gravel:	0.0
% Sand(2mm - 74µm):	24.8
% Silt(74µm- 5µm):	35.7
% Clay(5µm - 2µm):	14.5
% Clay(≤2µm):	25.0

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 22 @ 25'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	360.7
Corrected Wt., g:	360.7

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.5	0.14	99.86

Air Dry Hydro Sample Wt., g:	81.6
Corrected Wt., g:	81.6
Calculation Factor	0.8171

Hydrometer Analysis for <#10 Material

Start time: 2:04:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	2:04:20 AM	57	23	4.6	52.4
1 hour	3:04:00 AM	26	23	4.6	21.4
6 hour	8:04:00 AM	20	23	4.6	15.4

% Gravel:	0.0
% Sand(2mm - 74µm):	35.9
% Silt(74µm- 5µm):	37.9
% Clay(5µm - 2µm):	7.4
% Clay(≤2µm):	18.8

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 22 @ 30'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	417.8
Corrected Wt., g:	417.8

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.2	0.05	99.95
#10	0.7	0.17	99.83

Air Dry Hydro Sample Wt., g:	84.5
Corrected Wt., g:	84.5
Calculation Factor	0.8464

Hydrometer Analysis for <#10 Material

Start time: 8:48:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	8:48:20 AM	62	23	4.6	57.4
1 hour	9:48:00 AM	23	23	4.6	18.4
6 hour	2:48:00 PM	18	23	4.6	13.4

% Gravel:	0.0
% Sand(2mm - 74µm):	32.2
% Silt(74µm- 5µm):	46.1
% Clay(5µm - 2µm):	5.9
% Clay(≤2µm):	15.8

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 22 @ 35'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	471.6
Corrected Wt., g:	471.6

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	1.3	0.28	99.72
#8	2.1	0.45	99.55
#10	2.7	0.57	99.43

Air Dry Hydro Sample Wt., g:	76.7
Corrected Wt., g:	76.7
Calculation Factor	0.7714

Hydrometer Analysis for <#10 Material

Start time: 1:54:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:54:20 AM	50	23	4.6	45.4
1 hour	2:54:00 AM	19	23	4.6	14.4
6 hour	7:54:00 AM	15	23	4.6	10.4

% Gravel:	0.3
% Sand(2mm - 74µm):	40.8
% Silt(74µm- 5µm):	40.2
% Clay(5µm - 2µm):	5.2
% Clay(≤2µm):	13.5

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 22 @ 40'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	401.5
Corrected Wt., g:	401.5

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.4	0.10	99.90
#10	1.1	0.27	99.73

Air Dry Hydro Sample Wt., g:	66.6
Corrected Wt., g:	66.6
Calculation Factor	0.6678

Hydrometer Analysis for <#10 Material

Start time: 9:13:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:13:20 AM	49	23	4.6	44.4
1 hour	10:13:00 AM	24	23	4.6	19.4
6 hour	3:13:00 PM	20	23	4.6	15.4

% Gravel:	0.0
% Sand(2mm - 74µm):	33.5
% Silt(74µm- 5µm):	37.4
% Clay(5µm - 2µm):	6.0
% Clay(≤2µm):	23.1

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 22 @ 45'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	346.7
Corrected Wt., g:	346.7

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.4	0.12	99.88

Air Dry Hydro Sample Wt., g:	64.6
Corrected Wt., g:	64.6
Calculation Factor	0.6468

Hydrometer Analysis for <#10 Material

Start time: 1:48:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:48:20 AM	55	23	4.6	50.4
1 hour	2:48:00 AM	17	23	4.6	12.4
6 hour	7:48:00 AM	14	23	4.6	9.4

% Gravel:	0.0
% Sand(2mm - 74µm):	22.1
% Silt(74µm- 5µm):	58.7
% Clay(5µm - 2µm):	4.7
% Clay(≤2µm):	14.5

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 22 @ 50'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	447.4
Corrected Wt., g:	447.4

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.3	0.07	99.93
#10	0.6	0.13	99.87

Air Dry Hydro Sample Wt., g:	63.7
Corrected Wt., g:	63.7
Calculation Factor	0.6378

Hydrometer Analysis for <#10 Material

Start time: 1:49:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:49:20 AM	47	23	4.6	42.4
1 hour	2:49:00 AM	15	23	4.6	10.4
6 hour	7:49:00 AM	12	23	4.6	7.4

% Gravel:	0.0
% Sand(2mm - 74µm):	33.5
% Silt(74µm- 5µm):	50.2
% Clay(5µm - 2µm):	4.7
% Clay(≤2µm):	11.6

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 23 @ 5'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	186
Corrected Wt., g:	186.0

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.2	0.11	99.89
#10	0.4	0.22	99.78

Air Dry Hydro Sample Wt., g:	60.6
Corrected Wt., g:	60.6
Calculation Factor	0.6073

Hydrometer Analysis for <#10 Material

Start time: 8:57:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	8:57:20 AM	55	23	4.6	50.4
1 hour	9:57:00 AM	32	23	4.6	27.4
6 hour	2:57:00 PM	25	23	4.6	20.4

% Gravel:	0.0
% Sand(2mm - 74µm):	17.0
% Silt(74µm- 5µm):	37.9
% Clay(5µm - 2µm):	11.5
% Clay(≤2µm):	33.6

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 23 @ 10'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	259.1
Corrected Wt., g:	259.1

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	66.2
Corrected Wt., g:	66.2
Calculation Factor	0.6620

Hydrometer Analysis for <#10 Material

Start time: 8:49:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	8:49:20 AM	64	23	4.6	59.4
1 hour	9:49:00 AM	36	23	4.6	31.4
6 hour	2:49:00 PM	27	23	4.6	22.4

% Gravel:	0.0
% Sand(2mm - 74µm):	10.3
% Silt(74µm- 5µm):	42.3
% Clay(5µm - 2µm):	13.6
% Clay(≤2µm):	33.8

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 23 @ 15'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	292.8
Corrected Wt., g:	292.8

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	62.2
Corrected Wt., g:	62.2
Calculation Factor	0.6220

Hydrometer Analysis for <#10 Material

Start time: 9:23:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:23:20 AM	50	23	4.6	45.4
1 hour	10:23:00 AM	31	23	4.6	26.4
6 hour	3:23:00 PM	22	23	4.6	17.4

% Gravel:	0.0
% Sand(2mm - 74µm):	27.0
% Silt(74µm- 5µm):	30.6
% Clay(5µm - 2µm):	14.4
% Clay(≤2µm):	28.0

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 23 @ 20'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	501.2
Corrected Wt., g:	501.2

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.6	0.12	99.88

Air Dry Hydro Sample Wt., g:	84.5
Corrected Wt., g:	84.5
Calculation Factor	0.8460

Hydrometer Analysis for <#10 Material

Start time: 8:59:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	8:59:20 AM	65	23	4.6	60.4
1 hour	9:59:00 AM	30	23	4.6	25.4
6 hour	2:59:00 PM	20	23	4.6	15.4

% Gravel:	0.0
% Sand(2mm - 74µm):	28.6
% Silt(74µm- 5µm):	41.4
% Clay(5µm - 2µm):	11.8
% Clay(≤2µm):	18.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 23 @ 25'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	329.7
Corrected Wt., g:	329.7

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.6	0.18	99.82

Air Dry Hydro Sample Wt., g:	62
Corrected Wt., g:	62.0
Calculation Factor	0.6211

Hydrometer Analysis for <#10 Material

Start time: 9:07:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:07:20 AM	43	23	4.6	38.4
1 hour	10:07:00 AM	15	23	4.6	10.4
6 hour	3:07:00 PM	11	23	4.6	6.4

% Gravel:	0.0
% Sand(2mm - 74µm):	38.2
% Silt(74µm- 5µm):	45.1
% Clay(5µm - 2µm):	6.4
% Clay(≤2µm):	10.3

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 23 @ 30'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	368.5
Corrected Wt., g:	368.5

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	60.5
Corrected Wt., g:	60.5
Calculation Factor	0.6050

Hydrometer Analysis for <#10 Material

Start time: 8:55:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	8:55:20 AM	35	23	4.6	30.4
1 hour	9:55:00 AM	12	23	4.6	7.4
6 hour	2:55:00 PM	9	23	4.6	4.4

% Gravel:	0.0
% Sand(2mm - 74µm):	49.8
% Silt(74µm- 5µm):	38.0
% Clay(5µm - 2µm):	4.9
% Clay(≤2µm):	7.3

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 23 @ 35'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	381.4
Corrected Wt., g:	381.4

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.3	0.08	99.92
#10	0.7	0.18	99.82

Air Dry Hydro Sample Wt., g:	74.6
Corrected Wt., g:	74.6
Calculation Factor	0.7473

Hydrometer Analysis for <#10 Material

Start time: 9:03:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:03:20 AM	65	23	4.6	60.4
1 hour	10:03:00 AM	20	23	4.6	15.4
6 hour	3:03:00 PM	15	23	4.6	10.4

% Gravel:	0.0
% Sand(2mm - 74µm):	19.2
% Silt(74µm- 5µm):	60.2
% Clay(5µm - 2µm):	6.7
% Clay(≤2µm):	13.9

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 23 @ 40'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	426.6
Corrected Wt., g:	426.6

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.4	0.09	99.91
#10	0.9	0.21	99.79

Air Dry Hydro Sample Wt., g:	73.8
Corrected Wt., g:	73.8
Calculation Factor	0.7396

Hydrometer Analysis for <#10 Material

Start time: 8:52:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	8:52:20 AM	47	23	4.6	42.4
1 hour	9:52:00 AM	16	23	4.6	11.4
6 hour	2:52:00 PM	12	23	4.6	7.4

% Gravel:	0.0
% Sand(2mm - 74µm):	42.7
% Silt(74µm- 5µm):	41.9
% Clay(5µm - 2µm):	5.4
% Clay(≤2µm):	10.0

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 23 @ 45'**
Soil Description: **SM**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	479.6
Corrected Wt., g:	479.6

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	2.9	0.60	99.40
#10	3.8	0.79	99.21

Air Dry Hydro Sample Wt., g:	65.3
Corrected Wt., g:	65.3
Calculation Factor	0.6582

Hydrometer Analysis for <#10 Material

Start time: 9:01:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:01:20 AM	30	23	4.6	25.4
1 hour	10:01:00 AM	13	23	4.6	8.4
6 hour	3:01:00 PM	10	23	4.6	5.4

% Gravel:	0.0
% Sand(2mm - 74µm):	61.4
% Silt(74µm- 5µm):	25.8
% Clay(5µm - 2µm):	4.6
% Clay(≤2µm):	8.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 23 @ 50'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	558.6
Corrected Wt., g:	558.6

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	60.3
Corrected Wt., g:	60.3
Calculation Factor	0.6030

Hydrometer Analysis for <#10 Material

Start time: 9:42:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	9:42:20 AM	50	23	4.6	45.4
1 hour	10:42:00 AM	21	23	4.6	16.4
6 hour	3:42:00 PM	16	23	4.6	11.4

% Gravel:	0.0
% Sand(2mm - 74µm):	24.7
% Silt(74µm- 5µm):	48.1
% Clay(5µm - 2µm):	8.3
% Clay(≤2µm):	18.9

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 23 @ 60'**
Soil Description: **SM**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	502.2
Corrected Wt., g:	502.2

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.2	0.04	99.96
#8	2.4	0.48	99.52
#10	6.8	1.35	98.65

Air Dry Hydro Sample Wt., g:	101.6
Corrected Wt., g:	101.6
Calculation Factor	1.0299

Hydrometer Analysis for <#10 Material

Start time: 8:55:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	8:55:20 AM	32	23	4.6	27.4
1 hour	9:55:00 AM	12	23	4.6	7.4
6 hour	2:55:00 PM	11	23	4.6	6.4

% Gravel:	0.0
% Sand(2mm - 74µm):	73.4
% Silt(74µm- 5µm):	19.4
% Clay(5µm - 2µm):	1.0
% Clay(≤2µm):	6.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 24 @ 5'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	237
Corrected Wt., g:	237.0

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	59.7
Corrected Wt., g:	59.7
Calculation Factor	0.5970

Hydrometer Analysis for <#10 Material

Start time: 1:41:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:41:20 AM	57	25	4.3	52.7
1 hour	2:41:00 AM	35	25	4.3	30.7
6 hour	7:41:00 AM	26	25	4.3	21.7

% Gravel:	0.0
% Sand(2mm - 74µm):	11.7
% Silt(74µm- 5µm):	36.9
% Clay(5µm - 2µm):	15.1
% Clay(≤2µm):	36.3

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 24 @ 10'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	291
Corrected Wt., g:	291.0

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	64.4
Corrected Wt., g:	64.4
Calculation Factor	0.6440

Hydrometer Analysis for <#10 Material

Start time: 1:39:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:39:20 AM	62	25	4.3	57.7
1 hour	2:39:00 AM	36	25	4.3	31.7
6 hour	7:39:00 AM	27	25	4.3	22.7

% Gravel:	0.0
% Sand(2mm - 74µm):	10.4
% Silt(74µm- 5µm):	40.4
% Clay(5µm - 2µm):	14.0
% Clay(≤2µm):	35.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 24 @ 15'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	324.6
Corrected Wt., g:	324.6

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	60.8
Corrected Wt., g:	60.8
Calculation Factor	0.6080

Hydrometer Analysis for <#10 Material

Start time: 1:34:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:34:20 AM	58	25	4.3	53.7
1 hour	2:34:00 AM	33	25	4.3	28.7
6 hour	7:34:00 AM	22	25	4.3	17.7

% Gravel:	0.0
% Sand(2mm - 74µm):	11.7
% Silt(74µm- 5µm):	41.1
% Clay(5µm - 2µm):	18.1
% Clay(≤2µm):	29.1

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 24 @ 20'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	331
Corrected Wt., g:	331.0

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	66
Corrected Wt., g:	66.0
Calculation Factor	0.6600

Hydrometer Analysis for <#10 Material

Start time: 1:32:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:32:20 AM	61	25	4.3	56.7
1 hour	2:32:00 AM	28	25	4.3	23.7
6 hour	7:32:00 AM	20	25	4.3	15.7

% Gravel:	0.0
% Sand(2mm - 74µm):	14.1
% Silt(74µm- 5µm):	50.0
% Clay(5µm - 2µm):	12.1
% Clay(≤2µm):	23.8

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 24 @ 25'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	460
Corrected Wt., g:	460.0

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	60.6
Corrected Wt., g:	60.6
Calculation Factor	0.6060

Hydrometer Analysis for <#10 Material

Start time: 1:28:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:28:20 AM	51	25	4.3	46.7
1 hour	2:28:00 AM	17	25	4.3	12.7
6 hour	7:28:00 AM	14	25	4.3	9.7

% Gravel:	0.0
% Sand(2mm - 74µm):	22.9
% Silt(74µm- 5µm):	56.1
% Clay(5µm - 2µm):	5.0
% Clay(≤2µm):	16.0

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 24 @ 30'**
Soil Description: **SM**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	368.9
Corrected Wt., g:	368.9

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	66.9
Corrected Wt., g:	66.9
Calculation Factor	0.6690

Hydrometer Analysis for <#10 Material

Start time: 1:26:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:26:20 AM	28	25	4.3	23.7
1 hour	2:26:00 AM	8	25	4.3	3.7
6 hour	7:26:00 AM	7	25	4.3	2.7

% Gravel:	0.0
% Sand(2mm - 74µm):	64.6
% Silt(74µm- 5µm):	29.9
% Clay(5µm - 2µm):	1.5
% Clay(≤2µm):	4.0

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 24 @ 35'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	419.4
Corrected Wt., g:	419.4

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	66.8
Corrected Wt., g:	66.8
Calculation Factor	0.6680

Hydrometer Analysis for <#10 Material

Start time: 1:11:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:11:20 AM	61	25	4.3	56.7
1 hour	2:11:00 AM	17	25	4.3	12.7
6 hour	7:11:00 AM	6	25	4.3	1.7

% Gravel:	0.0
% Sand(2mm - 74µm):	15.1
% Silt(74µm- 5µm):	65.9
% Clay(5µm - 2µm):	16.5
% Clay(≤2µm):	2.5

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 24 @ 40'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	482
Corrected Wt., g:	482.0

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	59.8
Corrected Wt., g:	59.8
Calculation Factor	0.5980

Hydrometer Analysis for <#10 Material

Start time: 1:10:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:10:20 AM	54	25	4.3	49.7
1 hour	2:10:00 AM	16	25	4.3	11.7
6 hour	7:10:00 AM	13	25	4.3	8.7

% Gravel:	0.0
% Sand(2mm - 74µm):	16.9
% Silt(74µm- 5µm):	63.5
% Clay(5µm - 2µm):	5.1
% Clay(≤2µm):	14.5

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 24 @ 45'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	405.1
Corrected Wt., g:	405.1

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	64.7
Corrected Wt., g:	64.7
Calculation Factor	0.6470

Hydrometer Analysis for <#10 Material

Start time: 2:07:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	2:07:20 AM	53	25	4.3	48.7
1 hour	3:07:00 AM	15	25	4.3	10.7
6 hour	8:07:00 AM	11	25	4.3	6.7

% Gravel:	0.0
% Sand(2mm - 74µm):	24.7
% Silt(74µm- 5µm):	58.8
% Clay(5µm - 2µm):	6.1
% Clay(≤2µm):	10.4

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 24 @ 50'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	425
Corrected Wt., g:	425.0

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.3	0.07	99.93
#8	0.5	0.12	99.88
#10	0.6	0.14	99.86

Air Dry Hydro Sample Wt., g:	61
Corrected Wt., g:	61.0
Calculation Factor	0.6109

Hydrometer Analysis for <#10 Material

Start time: 2:05:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	2:05:20 AM	50	25	4.3	45.7
1 hour	3:05:00 AM	17	25	4.3	12.7
6 hour	8:05:00 AM	13	25	4.3	8.7

% Gravel:	0.1
% Sand(2mm - 74µm):	25.1
% Silt(74µm- 5µm):	54.0
% Clay(5µm - 2µm):	6.6
% Clay(≤2µm):	14.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 25 @ 5'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	287.9
Corrected Wt., g:	287.9

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.2	0.07	99.93
#10	0.3	0.10	99.90

Air Dry Hydro Sample Wt., g:	59.2
Corrected Wt., g:	59.2
Calculation Factor	0.5926

Hydrometer Analysis for <#10 Material

Start time: 2:01:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	2:01:20 AM	57	24	4.5	52.5
1 hour	3:01:00 AM	29	24	4.5	24.5
6 hour	8:01:00 AM	22	24	4.5	17.5

% Gravel:	0.0
% Sand(2mm - 74µm):	11.4
% Silt(74µm- 5µm):	47.3
% Clay(5µm - 2µm):	11.8
% Clay(≤2µm):	29.5

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 25 @ 10'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	350.1
Corrected Wt., g:	350.1

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	58.2
Corrected Wt., g:	58.2
Calculation Factor	0.5820

Hydrometer Analysis for <#10 Material

Start time: 1:59:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:59:20 AM	55	24	4.5	50.5
1 hour	2:59:00 AM	25	24	4.5	20.5
6 hour	7:59:00 AM	18	24	4.5	13.5

% Gravel:	0.0
% Sand(2mm - 74µm):	13.2
% Silt(74µm- 5µm):	51.6
% Clay(5µm - 2µm):	12.0
% Clay(≤2µm):	23.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 25 @ 15'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	383.1
Corrected Wt., g:	383.1

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	56.6
Corrected Wt., g:	56.6
Calculation Factor	0.5660

Hydrometer Analysis for <#10 Material

Start time: 1:54:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:54:20 AM	56	24	4.5	51.5
1 hour	2:54:00 AM	28	24	4.5	23.5
6 hour	7:54:00 AM	20	24	4.5	15.5

% Gravel:	0.0
% Sand(2mm - 74µm):	9.0
% Silt(74µm- 5µm):	49.5
% Clay(5µm - 2µm):	14.1
% Clay(≤2µm):	27.4

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 25 @ 20'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	333.1
Corrected Wt., g:	333.1

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	56.6
Corrected Wt., g:	56.6
Calculation Factor	0.5660

Hydrometer Analysis for <#10 Material

Start time: 1:52:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:52:20 AM	54	24	4.5	49.5
1 hour	2:52:00 AM	28	24	4.5	23.5
6 hour	7:52:00 AM	20	24	4.5	15.5

% Gravel:	0.0
% Sand(2mm - 74µm):	12.5
% Silt(74µm- 5µm):	46.0
% Clay(5µm - 2µm):	14.1
% Clay(≤2µm):	27.4

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 25 @ 25'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	405.5
Corrected Wt., g:	405.5

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	61.3
Corrected Wt., g:	61.3
Calculation Factor	0.6130

Hydrometer Analysis for <#10 Material

Start time: 1:46:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:46:20 AM	55	24	4.5	50.5
1 hour	2:46:00 AM	22	24	4.5	17.5
6 hour	7:46:00 AM	16	24	4.5	11.5

% Gravel:	0.0
% Sand(2mm - 74µm):	17.6
% Silt(74µm- 5µm):	53.9
% Clay(5µm - 2µm):	9.7
% Clay(≤2µm):	18.8

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 25 @ 30'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	368
Corrected Wt., g:	368.0

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.4	0.11	99.89
#8	1.0	0.27	99.73
#10	1.4	0.38	99.62

Air Dry Hydro Sample Wt., g:	70.4
Corrected Wt., g:	70.4
Calculation Factor	0.7067

Hydrometer Analysis for <#10 Material

Start time: 1:45:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:45:20 AM	42	24	4.5	37.5
1 hour	2:45:00 AM	12	24	4.5	7.5
6 hour	7:45:00 AM	9	24	4.5	4.5

% Gravel:	0.1
% Sand(2mm - 74µm):	46.8
% Silt(74µm- 5µm):	42.5
% Clay(5µm - 2µm):	4.2
% Clay(≤2µm):	6.4

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 25 @ 35'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	496.7
Corrected Wt., g:	496.7

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.3	0.06	99.94
#10	1.3	0.26	99.74

Air Dry Hydro Sample Wt., g:	64
Corrected Wt., g:	64.0
Calculation Factor	0.6417

Hydrometer Analysis for <#10 Material

Start time: 3:06:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	3:06:20 AM	63	24	4.5	58.5
1 hour	4:06:00 AM	27	24	4.5	22.5
6 hour	9:06:00 AM	19	24	4.5	14.5

% Gravel:	0.0
% Sand(2mm - 74µm):	8.8
% Silt(74µm- 5µm):	56.1
% Clay(5µm - 2µm):	12.5
% Clay(≤2µm):	22.6

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 25 @ 40'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	466.8
Corrected Wt., g:	466.8

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.2	0.04	99.96
#10	0.2	0.04	99.96

Air Dry Hydro Sample Wt., g:	67.1
Corrected Wt., g:	67.1
Calculation Factor	0.6713

Hydrometer Analysis for <#10 Material

Start time: 1:40:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:40:20 AM	44	24	4.5	39.5
1 hour	2:40:00 AM	15	24	4.5	10.5
6 hour	7:40:00 AM	12	24	4.5	7.5

% Gravel:	0.0
% Sand(2mm - 74µm):	41.2
% Silt(74µm- 5µm):	43.2
% Clay(5µm - 2µm):	4.4
% Clay(≤2µm):	11.2

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 25 @ 45'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	268.2
Corrected Wt., g:	268.2

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.0	0.00	100.00

Air Dry Hydro Sample Wt., g:	60.9
Corrected Wt., g:	60.9
Calculation Factor	0.6090

Hydrometer Analysis for <#10 Material

Start time: 1:38:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:38:20 AM	52	24	4.5	47.5
1 hour	2:38:00 AM	13	24	4.5	8.5
6 hour	7:38:00 AM	11	24	4.5	6.5

% Gravel:	0.0
% Sand(2mm - 74µm):	22.0
% Silt(74µm- 5µm):	64.0
% Clay(5µm - 2µm):	3.3
% Clay(≤2µm):	10.7

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 25 @ 50'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	437.8
Corrected Wt., g:	437.8

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	3.2	0.73	99.27
#8	4.0	0.91	99.09
#10	4.2	0.96	99.04

Air Dry Hydro Sample Wt., g:	57.2
Corrected Wt., g:	57.2
Calculation Factor	0.5775

Hydrometer Analysis for <#10 Material

Start time: 1:34:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:34:20 AM	44	24	4.5	39.5
1 hour	2:34:00 AM	10	24	4.5	5.5
6 hour	7:34:00 AM	8	24	4.5	3.5

% Gravel:	0.7
% Sand(2mm - 74µm):	30.9
% Silt(74µm- 5µm):	58.9
% Clay(5µm - 2µm):	3.4
% Clay(≤2µm):	6.1

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 25 @ 60'**
Soil Description: **SM**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	607.7
Corrected Wt., g:	607.7

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	5.1	0.84	99.16
#8	36.7	6.04	93.96
#10	50.2	8.26	91.74

Air Dry Hydro Sample Wt., g:	88.5
Corrected Wt., g:	88.5
Calculation Factor	0.9647

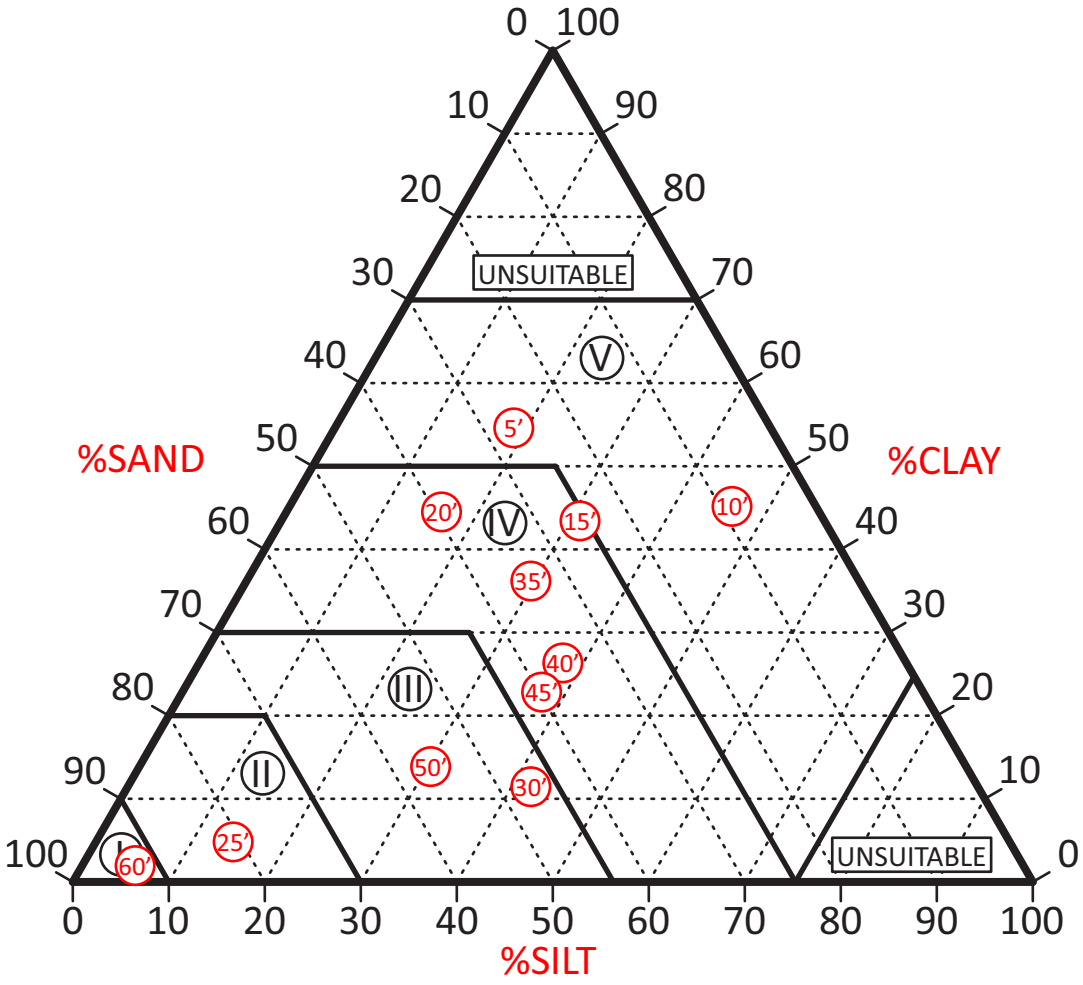
Hydrometer Analysis for <#10 Material

Start time: 1:33:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:33:20 AM	32	24	4.5	27.5
1 hour	2:33:00 AM	13	24	4.5	8.5
6 hour	7:33:00 AM	7	24	4.5	2.5

% Gravel:	0.8
% Sand(2mm - 74µm):	70.7
% Silt(74µm- 5µm):	19.7
% Clay(5µm - 2µm):	6.2
% Clay(≤2µm):	2.6

SOIL CLASSIFICATION CHART FOR BORING B-20



Soil Types	Soil Absorption Capacity (Gals/ft^2/day)	Required Leaching Area/100Gals (ft^2)	Percolation Rating
Ⅰ	5	20	Excellent
Ⅱ	4	25	Good
Ⅲ	2.5	40	Fair*
Ⅳ	1.1	90	Poor*
Ⅴ	0.83	120	Questionable*

*A pit performance test is required when Soil Types III, IV, and V make up 50% or more of the soil profile.

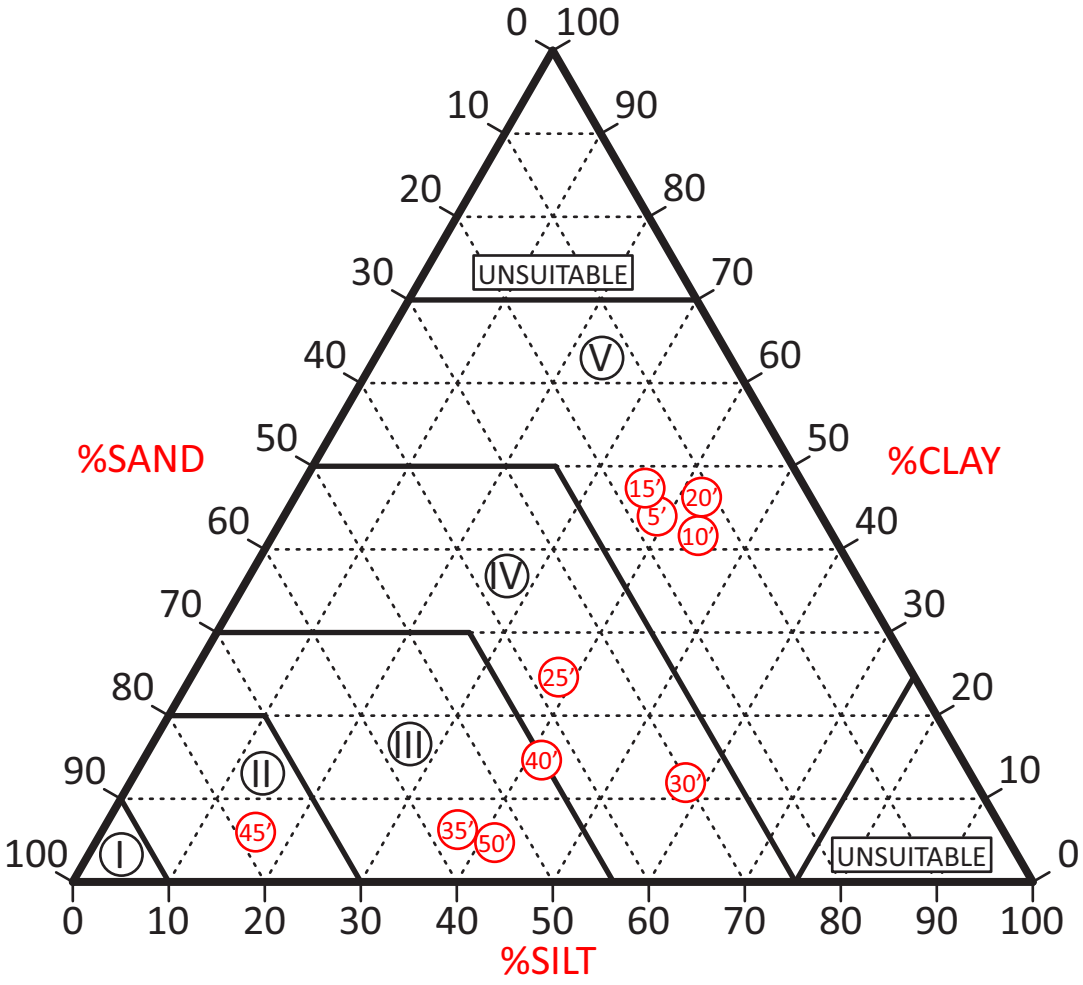
SOIL CLASSIFICATION CHART, B-20

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001

SOIL CLASSIFICATION CHART FOR BORING B-21



Soil Types	Soil Absorption Capacity (Gals/ft^2/day)	Required Leaching Area/100Gals (ft^2)	Percolation Rating
Ⅰ	5	20	Excellent
Ⅱ	4	25	Good
Ⅲ	2.5	40	Fair*
Ⅳ	1.1	90	Poor*
Ⅴ	0.83	120	Questionable*

*A pit performance test is required when Soil Types III, IV, and V make up 50% or more of the soil profile.

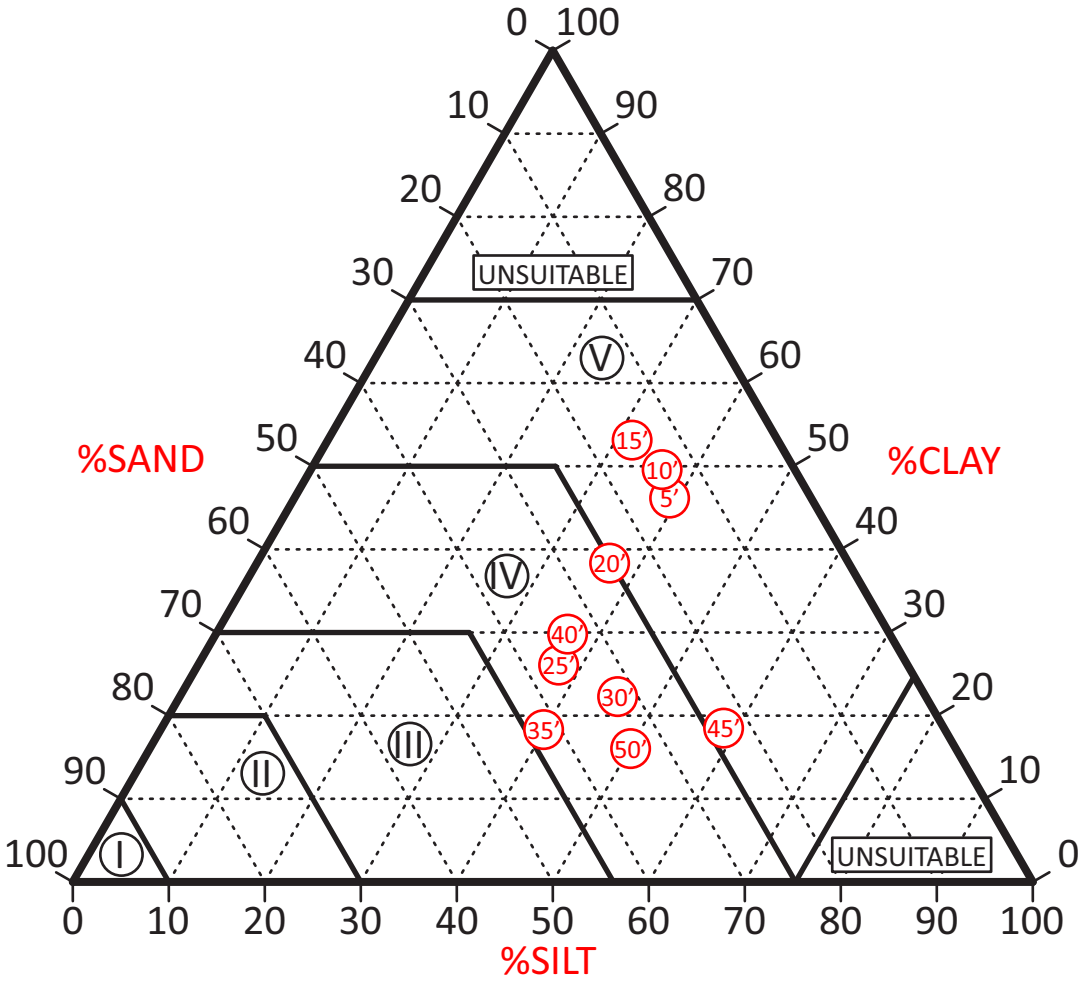
SOIL CLASSIFICATION CHART, B-21

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001

SOIL CLASSIFICATION CHART FOR BORING B-22



Soil Types	Soil Absorption Capacity (Gals/ft^2/day)	Required Leaching Area/100Gals (ft^2)	Percolation Rating
Ⓘ	5	20	Excellent
Ⓘ	4	25	Good
Ⓘ	2.5	40	Fair*
Ⓘ	1.1	90	Poor*
Ⓘ	0.83	120	Questionable*

*A pit performance test is required when Soil Types III, IV, and V make up 50% or more of the soil profile.

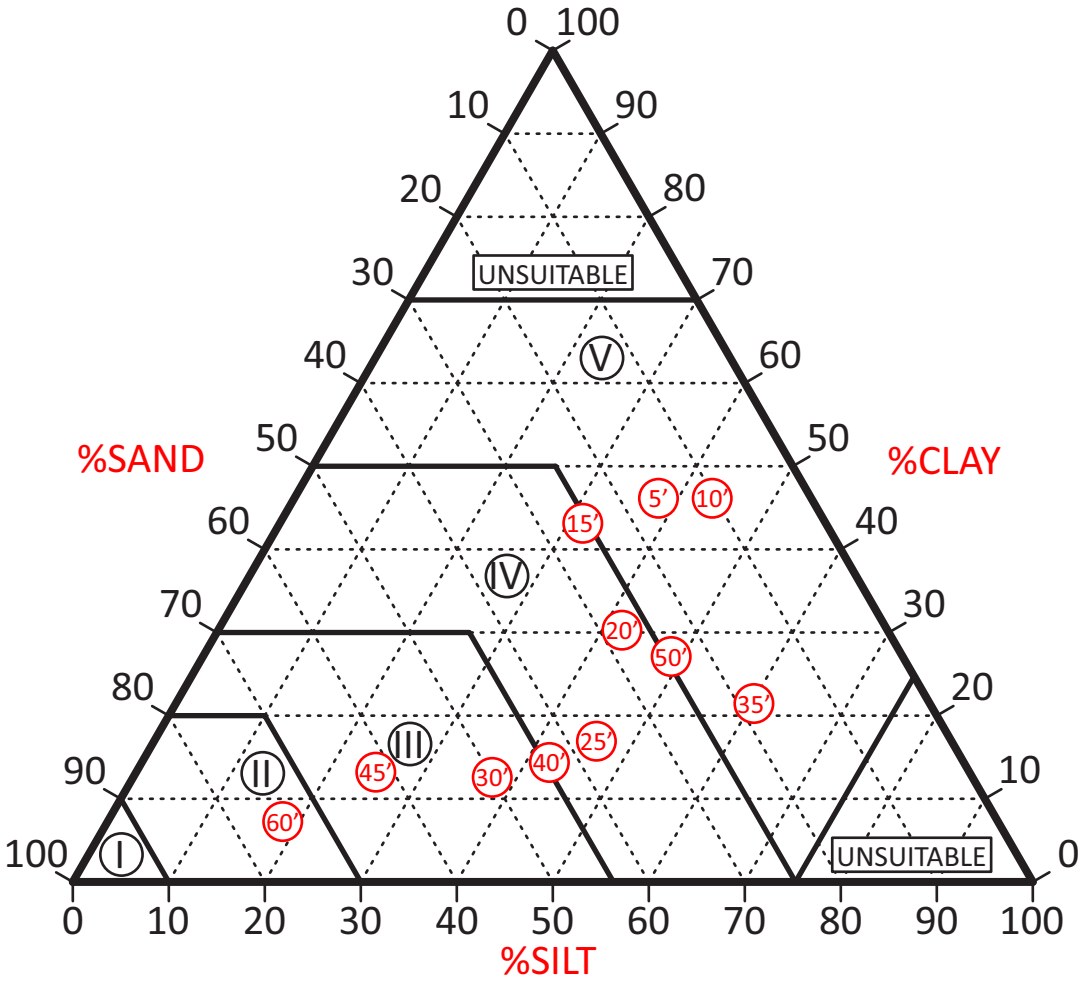
SOIL CLASSIFICATION CHART, B-22

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001

SOIL CLASSIFICATION CHART FOR BORING B-23



Soil Types	Soil Absorption Capacity (Gals/ft^2/day)	Required Leaching Area/100Gals (ft^2)	Percolation Rating
Ⅰ	5	20	Excellent
Ⅱ	4	25	Good
Ⅲ	2.5	40	Fair*
Ⅳ	1.1	90	Poor*
Ⅴ	0.83	120	Questionable*

*A pit performance test is required when Soil Types III, IV, and V make up 50% or more of the soil profile.

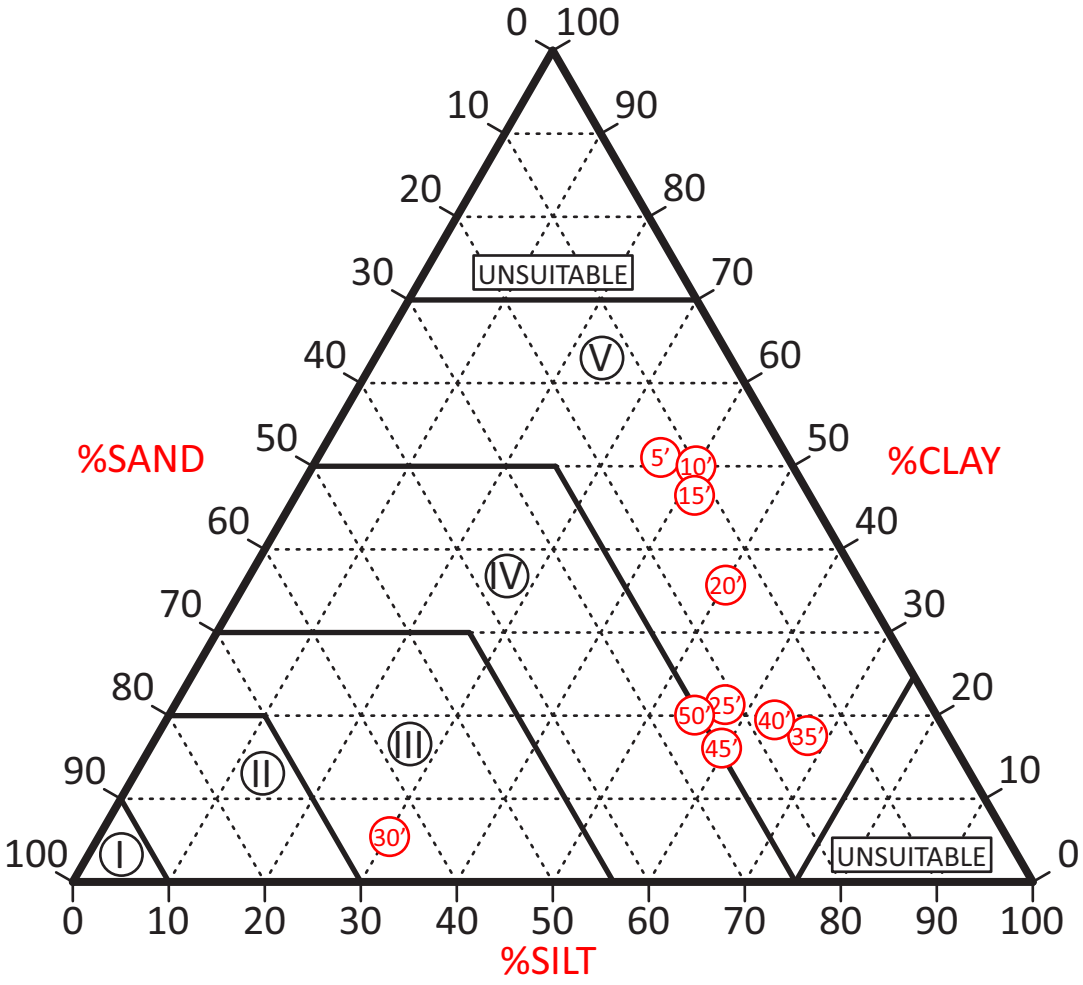
SOIL CLASSIFICATION CHART, B-23

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001

SOIL CLASSIFICATION CHART FOR BORING B-24



Soil Types	Soil Absorption Capacity (Gals/ft^2/day)	Required Leaching Area/100Gals (ft^2)	Percolation Rating
Ⅰ	5	20	Excellent
Ⅱ	4	25	Good
Ⅲ	2.5	40	Fair*
Ⅳ	1.1	90	Poor*
Ⅴ	0.83	120	Questionable*

*A pit performance test is required when Soil Types III, IV, and V make up 50% or more of the soil profile.

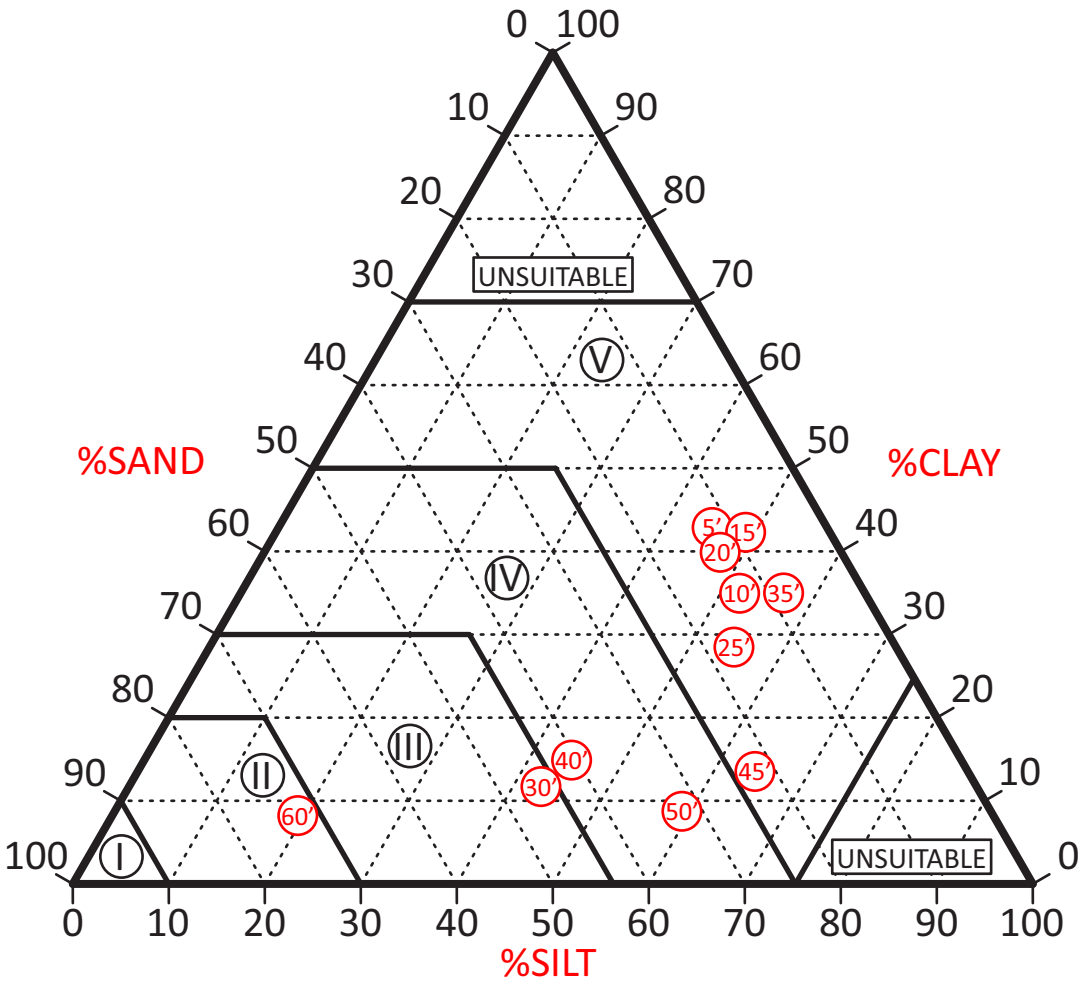
SOIL CLASSIFICATION CHART, B-24

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001

SOIL CLASSIFICATION CHART FOR BORING B-25



Soil Types	Soil Absorption Capacity (Gals/ft^2/day)	Required Leaching Area/100Gals (ft^2)	Percolation Rating
Ⓘ	5	20	Excellent
Ⓘ	4	25	Good
Ⓘ	2.5	40	Fair*
Ⓘ	1.1	90	Poor*
Ⓘ	0.83	120	Questionable*

*A pit performance test is required when Soil Types III, IV, and V make up 50% or more of the soil profile.

SOIL CLASSIFICATION CHART, B-25

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

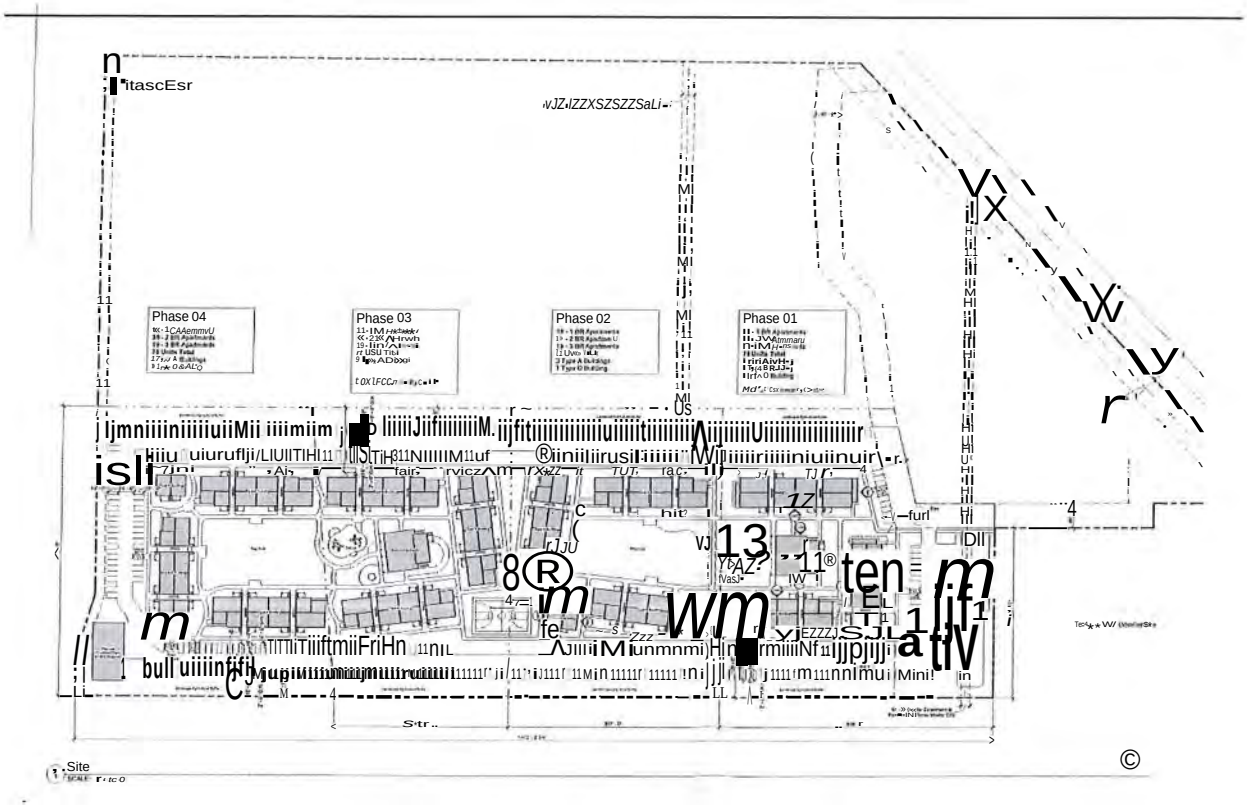
September 2019	302947-001

Appendix H

Traffic Study

SOMIS RANCH FARMWORKER HOUSING PROJECT
VENTURA COUNTY, CALIFORNIA

REVISED TRAFFIC STUDY



February 21, 2020

ATE Project #19015

Prepared for:

Jensen Design and Survey, Inc.
1672 Donlon Street
Ventura, CA 93003

ASSOCIATED TRANSPORTATION ENGINEERS

100 N. Hope Avenue, Suite 4, Santa Barbara, CA 93110-1686 ● (805) 687-4418 ● FAX (805) 682-8509

ASSOCIATED TRANSPORTATION ENGINEERS

100 N. Hope Avenue, Suite 4, Santa Barbara, CA 93110 • (805)687-4418 • main@atesb.com

Since 1978

Richard L. Pool, P.E.
Scott A. Schell, AICP, PTP

February 21, 2020

Ms. Lisa Woodburn
Jensen Design and Survey
374 Poli, Suite 200
Ventura, CA 93001

REVISED TRAFFIC STUDY FOR THE SOMIS RANCH FARMWORKER HOUSING PROJECT - VENTURA COUNTY, CALIFORNIA

Associated Transportation Engineers (ATE) is pleased to submit the following revised traffic study for the Somis Ranch Farmworker Housing Project. The revised traffic study addresses Ventura County staff comments on the December 16th traffic study and examines existing and future traffic conditions in the vicinity of the Project site. It is our understanding that this traffic study will be incorporated into the development application for the Project to be submitted to Ventura County.

We appreciate the opportunity to assist Jensen Design and Survey, with this Project.

Associated Transportation Engineers

By Richard L. Pool, P.E.
President

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INTRODUCTION

The following study contains an analysis of the potential traffic impacts associated with the proposed Somis Ranch Farmworker Housing Project (the "Project"), located on the west side of Somis Road in unincorporated Ventura County and directly adjacent to the City of Camarillo. The study provides information relative to Existing, Existing + Project, Cumulative and Cumulative + Project traffic conditions within the Project study-area. A review of the access to the site also presented.

PROJECT DESCRIPTION

The Somis Ranch Farmworker Housing Project consists of 360 multi-family housing units with related residential community amenities. The Project will be constructed in 3 phases (Phase I-100 units, Phase II-100 units, Phase III-160 units). The Project site is located at 2789 Somis Road immediately north of the City of Camarillo in the unincorporated Somis area of Ventura County. The Project is requesting the approval for a Planned Development Permit, a Parcel Map and a CUP for a community waste water treatment facility (WWTF). The City of Camarillo will improve the existing access connection and construct the new access connection to Somis Road as part of the North Pleasant Valley Groundwater Treatment Facility and De-Salter Project. The Project has a shared access agreement with the City of Camarillo to utilize the new access connections to Somis Road that will serve the groundwater treatment facility. Figure 2 illustrates the Project site plan.

EXISTING CONDITIONS

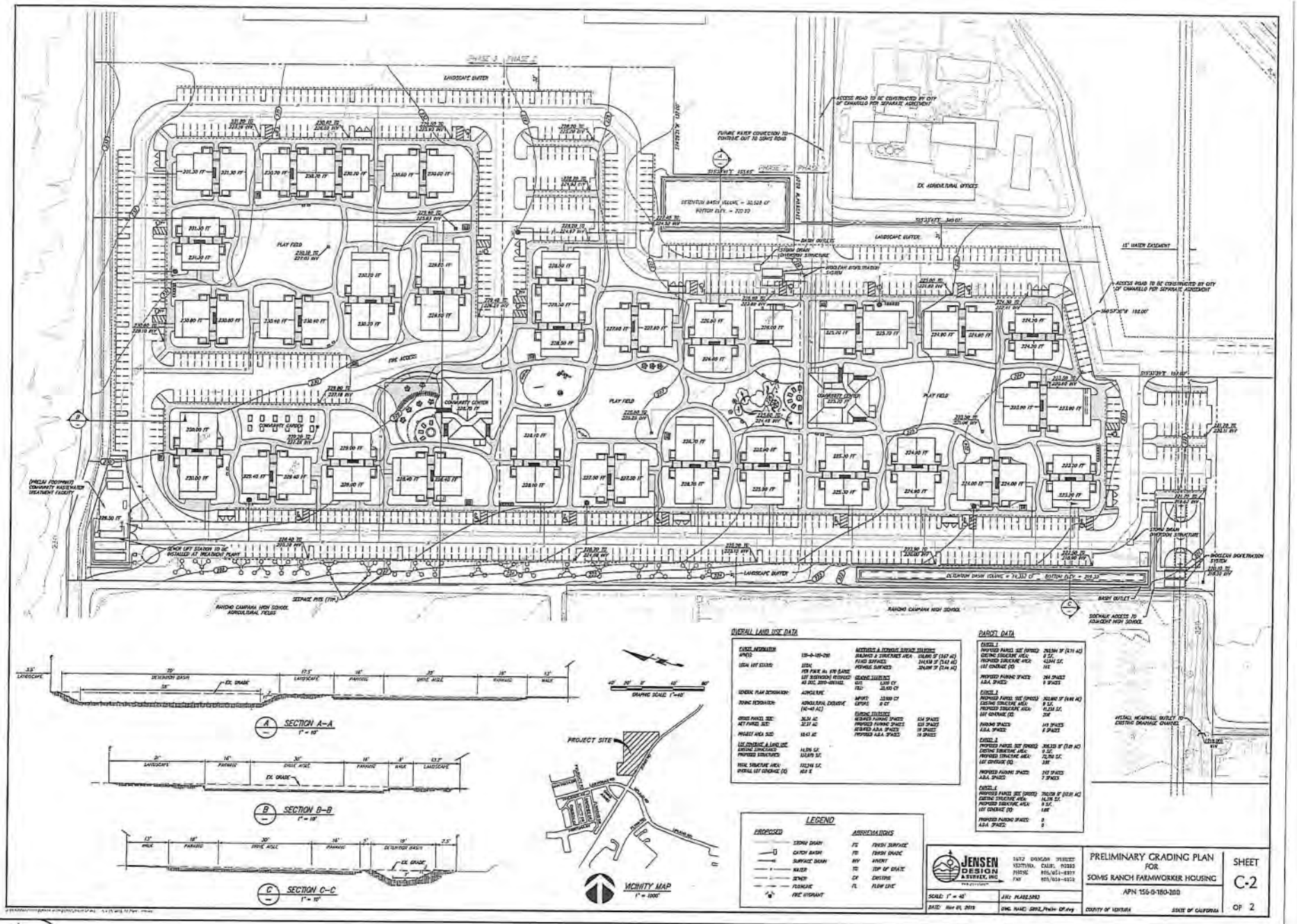
Street Network

The study-area circulation system is comprised of U.S. Highway 101, State Route 118, State Route 34, Las Posas Road-Upland Road, Flynn Road, Adolfo Road, Daily Drive, Ventura Boulevard, Balcom Canyon Road and Grimes Canyon Road which serve as the major arterials, and collector streets, as illustrated in Figure 1. The following text provides a brief discussion of the primary components of the study-area street network.

U.S. Highway 101, located south of the site, is a multi-lane freeway which serves as a major arterial for the City of Camarillo and is the principal inter-city route along this portion of the Pacific Coast. The segment of U.S. Highway 101 in the study-area is 6-lanes with auxiliary on-off ramp lanes. Primary access between the freeway and the Project site is provided via the signalized hook ramps at Daily Drive and Ventura Boulevard.

FIGURE 1

PROJECT SITE LOCATION - EXISTING STREET NETWORK



Associated Transportation Engineers

PROJECT SITE PLAN

FIGURE 3

JH - ATE#19016

State Route 118 (Los Angeles Avenue), located north of the project site, is a 2- to 6-lane highway that extends from the State Route 126 (Santa Paula Freeway) in the City of Ventura to State Route 210 (Foothill Freeway) east of the City of San Fernando. State Route 118 is signalized at Somis Road.

State Route 34, (Somis Road/Lewis Road) in the study-area is a 2-lane north-south primary arterial. State Route 34 connects Somis to the City of Camariilo and City of Oxnard. The State Route 118 (Los Angeles Avenue)/State Route 34 (Somis Road) intersection provides regional access to the Project site.

Las Posas Road-Upland Road, is a 4-lane secondary arterial roadway that extends south to Pleasant Valley Road. The roadway extends east from Ponderosa Drive to Lewis Road as Las Posas Road. The roadway continues east from Lewis Road to Santa Rosa Road as Upland Road. South of Ponderosa Road, Las Posas is primary arterial. Las Posas Road-Upland Road serves residential, and commercial land uses in the study-area. The intersections of Las Posas Road/Camino Alvarez, Las Posas Road-Upland Road/Lewis Road and Upland Road/Flynn Road are signalized.

Daily Drive, located south of the site, is a 2-lane east-west collector roadway that provides access to the commercial and residential area located along the northern frontage of U.S. Highway 101 between Las Posas Road and Lewis Road. The U.S. Highway 101northbound/Daily Drive ramp intersection and Daily Drive/Lewis Road intersections are controlled by traffic signals.

Ventura Boulevard, located south of the site is a 2- to 4-lane east-west secondary roadway that extends from Lewis Road to Wood Road west of the Camarillo Town Center. Ventura Boulevard provides access to the commercial and residential area located along the southern frontage of U.S. Highway 101. The U.S. Highway 101 southbound/Ventura Boulevard ramp intersection and Ventura Boulevard/Lewis Road intersections are controlled by traffic signals.

Adolfo Road, is a 4-lane secondary arterial roadway that extends east from Ponderosa Drive to its terminus at the Conejo Creek. Adolfo Road serves residential, commercial and industrial land uses in the study-area. The Lewis Road/Adolfo Road intersection is signalized.

Santa Clara Avenue, is a 2-lane secondary arterial roadway that extends south from State Route 118 to U.S. Highway 101. Santa Clara Avenue serves agricultural residential and industrial land uses in the study-area. The State Route 118/Santa Clara Avenue intersection is signalized.

Flynn Road, is a 4-lane secondary arterial/industrial collector roadway that extends south from Upland Road to Mission Oaks Boulevard. Flynn Road serves residential, commercial and industrial land uses in the study-area. The Upland Road/Flynn Road intersection is signalized.

Balcom Canyon Road, is a 2-lane rural roadway that extends north from State Route to Bradley Road. Balcom Canyon Road serves agricultural and residential land uses in the study-area. The State Route 118/Balcom Canyon Road intersection is signalized.

Grimes Canyon Road, is a 2-lane rural roadway that extends north from State Route 118 to Broadway. Grimes Canyon Road serves agricultural and residential land uses in the study-area. The State Route 118/Grimes Canyon Road intersection is signalized.

Roadway Operations

The following section reviews average daily traffic (ADT) volumes and roadway operations in the study-area. The operational characteristics of the study-area roadways are analyzed based on a set of standard Ventura County roadway design capacities which are summarized in the Technical Appendix. In rating a roadway's operating condition, "Levels of Service" (LOS) ***"A"*** through "F" are used. LOS "A" and LOS "B" represent primarily free-flow operations, LOS "C" represents stable conditions, LOS "D" nears unstable operations with restrictions on maneuverability within traffic streams, LOS "E" represents unstable operations with maneuverability very limited, and LOS "F" represents breakdown or forced flow conditions. LOS "D" is considered acceptable for County thoroughfares in the unincorporated areas of the County and LOS ***"E"*** for State Route 118 between Santa Clara Avenue and the City of Moorpark and State Route 34 in Somis north of the City of Camarillo.

Existing ADT volumes for the roadway segments in the vicinity of the Project site were obtained from data collected by Caltrans[1] and Ventura County contained in the Technical Appendix (T-4 - T-16). Table 1 lists the existing ADT and levels of service for study-area roadways. Roadway classifications are based on the Ventura County General Plan.

[1] 2017 Traffic Volumes on California State Highways, California Department of Transportation.

Table 1
Existing Roadway Operations

Roadway	Class	Roadway Type	ADT	LOS
State Route 118				
- east of Balcom Canyon Road	Class I	2-Lane Roadway	19,500	LOS E
- east of Somis Road	Class I	2-Lane Roadway	19.500	LOS E
- west of Somis Road	Class I	2-Lane Roadway	14,000	LOS D
- west of Santa Clara	Class I	4-Lane Roadway	24,700	LOS B
- west of State Route 232	Class I	4-Lane Roadway	35.500	LOS C
State Route 34				
- south of Los Angeles Avenue	Class I	2-Lane Roadway	14,500	LOS D
Balcom Canyon Road				
- north of Los Angeles Avenue	Class II	2-Lane Roadway	3,000	LOS B
Broadway				
- west of Grimes Canyon Road	Class II	2-Lane Roadway	2,300	LOS B
Central Avenue				
- west of U.S. Highway 101	Class I	2-Lane Roadway	17,000	LOS D
Grimes Canyon Road				
- north of Los Angeles Avenue	Class II	2-Lane Roadway	3,500	LOS B
Las Posas Road				
- south of Pleasant Valley Road	Class I	2-Lane Roadway	10,100	LOS D
Lewis Road				
-south of Pleasant Valley Road	Class I	4-Lane Roadway	19,700	LOS B
Pleasant Valley Road				
- west of Las Posas Road	Class I	2-Lane Roadway	16,200	LOS E
Rose Avenue				
- south of Los Angeles Avenue	Class II	2-Lane Roadway	9,100	LOS D

The data presented in Table 1 indicate that the study-area roadway segments currently operate in the LOS "B" - "E" range based on Ventura County Public Works roadway design capacities presented in Figure 4.2.2 in the Technical Appendix (T-3). Based on Ventura County standards LOS "E" is acceptable for State Route 118 and State Route 34. While LOS "D" is acceptable for all other County roadways. Pleasant Valley Road is currently operating at an unacceptable LOS "E".

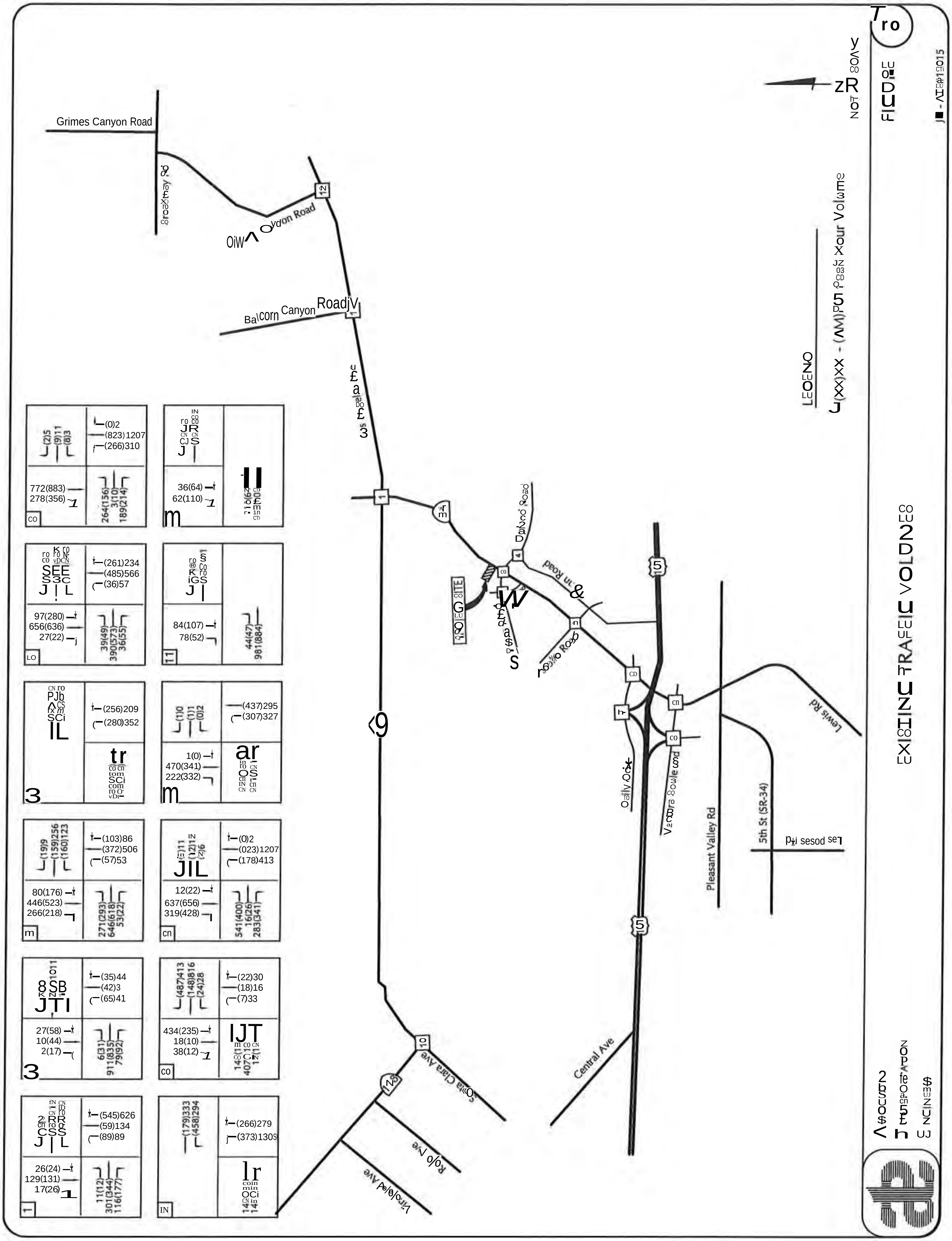
Intersections Operations

Existing AM and PM peak hour traffic volumes were collected for this study in March and November 2019. Figure 3 illustrates the existing AM and PM peak hour traffic volumes. Existing levels of service for the study-area intersection were calculated using the adopted Intersection Capacity Utilization methodology for signalized intersections as required by Ventura County and the City of Camarillo. The ATE used the service flow rates adopted by the Ventura County Transportation Commission for the Congestion Management Plan per the Ventura County Initial Study Assessment Guidelines. Worksheets illustrating the level of service calculations are contained in the Technical Appendix (T-41 - T-64). Table 2 lists the existing intersection level of service for the study-area intersections. The existing lane geometries and traffic controls for the study-area intersections are illustrated on Figure 4.

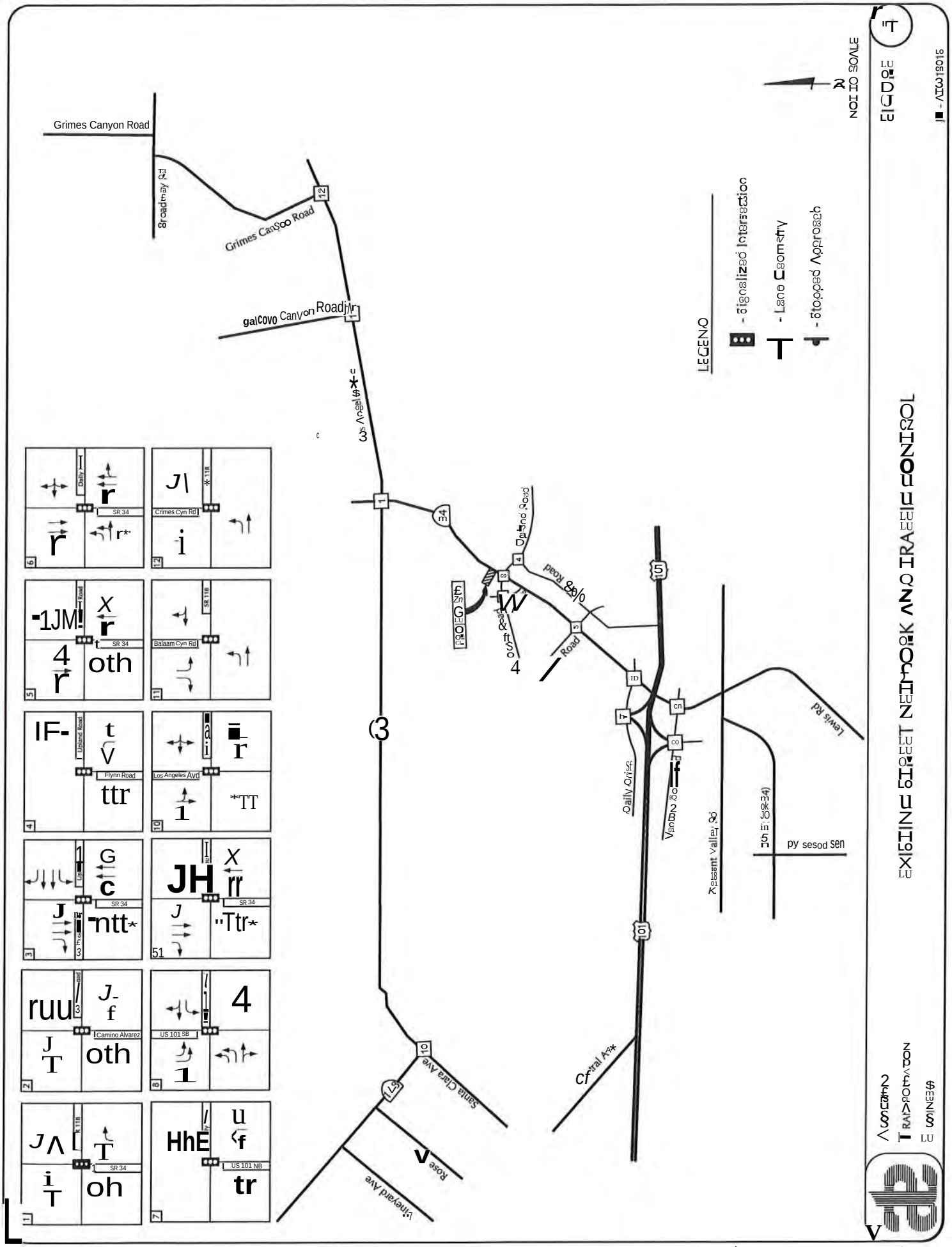
Table 2
Existing Intersection Operations

intersection	Control	Existing Conditions	
		AM Peak Hour	PM Peak Hour
		ICU-LOS	ICU-LOS
State Route 118/Santa Clara Avenue	Signal	0.88-LOS D	0.86-LOS D
State Route 118/Somis Road	Signal	0.80-LOS C	0.74-LOS C
State Route 118/Balcom Canyon Road	Signal	0.65-LOS B	0.67-LOS B
State Route 118/Grimes Canyon Road	Signal	0.68.-LOS A	0.66-LOS B
Los Posas Road/Camino Alvarez	Signal	0.38-LOS A	0.36-LOS A
Somis Road/Las Posas Road	Signal	0.53-LOS A	0.52-LOS A
Upland Road/Flynn Road	Signal	0.44-LOS A	0.38-LOS A
Lewis Road/Adolfo Road	Signal	0.57-LOS A	0.53-LOS A
Lewis Road/Daily Drive	Signal	0.49-LOS A	0.51-LOS A
U.S. Highway 101NB Ramps/Daily Drive	Signal	0.38-LOS A	0.62-LOS B
U.S. Highway 101 SB Ramps/Ventura Boulevard	Signal	0.30-LOS A	0.61-LOS B
Lewis Road/Ventura Boulevard	Signal	0.37-LOS A	0.52-LOS A

The study-area intersections generally operate in the LOS *"A"-"C"* range during the AM and PM peak hour period as indicated in Table 2.



Grimes Canyon Road
Balcorn Canyon Road
Central Ave
Pleasant Valley Rd
5th St (SR-34)
Lewis Rd


Grimes Canyon Road
Broadway
Grimes Canyon Road
Calle Real
Daily Drive
Los Angeles Ave
Flynn Road
Upland Road
Crimes Cyn Rd
Balaam Cyn Rd
Camino Alvarez
US 101 SB
US 101 NB
SR 34
SR 118
Santa Clara Ave
Vineyard Ave
Rose
Central Ave
Pleasant Valley Rd
Lewis Rd
LEGEND
Signalized Intersection
Study Intersection
Approach

IMPACT THRESHOLDS

The study-area roadways and intersections are located in both unincorporated Ventura County and the City of Camarillo. The impact thresholds for both the County and City are discussed in the following text.

Ventura County General Plan Policies

Roadways: The thresholds established by Ventura County[2] that are outlined in Table 3 were used to assess the significance of roadway and intersection impacts associated with project generated traffic.

Table 3
Minimum Acceptable Level of Service For Roadway Segments and Intersections

Minimum LOS	County of Ventura - Description
C	All County maintained local roads.
D	All County thoroughfares and state highways within the unincorporated area of the County, except as provided below
E	1. State Route 33 between the end of the Ojai freeway and the City of Ojai. 2. State Route 118 between Santa Clara Avenue and the City of Moorpark. 3. State Route 34 (Somis Road) north of the City of Camarillo. 4. Santa Rosa Road between Camarillo city limit line and Thousand Oaks city limit line. 5. Moorpark Road north of Santa Rosa Road to Moorpark city limit line.
Varies	The LOS prescribed by the applicable city for all state highways, city thoroughfares, and city maintained local roads located within that city, if the city has formerly adopted General Plan policies, ordinances or a reciprocal agreement with the County, pertaining to development in the city that would individually or cumulatively affect the LOS of state highways, county thoroughfares and county-maintained local roads in the unincorporated area of the County.
	County LOS standards are applicable for any city that has not adopted its own standards or has not executed a reciprocal agreement with the County pertaining to impacts to County roads.
At any intersection between two roads, each of which has a prescribed minimum acceptable LOS, the less stringent LOS of the two shall be the minimum acceptable LOS of that intersection.	

Project-Specific Impacts - A significant adverse project specific traffic impact is assumed to occur on any road segment if any one of the following results from the project:

a. If the project would cause the existing LOS on a roadway segment to fall to an unacceptable level as defined in Table 3.

b. If the project will add one or more PHT to a roadway segment that is currently operating at an unacceptable LOS as defined in Table 3.

---

[2] Ventura County Initial Study Assessment Guidelines, County of Ventura, April 26, 2011.

Cumulative Impacts – A potentially significant adverse cumulative traffic impact is assumed to occur on any road segment if any one of the following results from the project:

a. If the project will add one or more PHT to a roadway segment that is part of the regional road network and the roadway segment is currently operating at an unacceptable LOS as defined in Table 3.

b. If the project will add 10 or more PHT to a roadway segment which is part of the regional road network and is projected to reach an unacceptable LOS as defined in Table 3 by the Year 2020.

All projects that generate traffic contribute to cumulative traffic impacts. The analysis of cumulative traffic impacts, as contained in the Final Subsequent EIR prepared for the County General Plan Update (2005) and subsequent addendum (2007), would normally be considered sufficient analysis of traffic impacts. In such cases, payment of County's Traffic Impact Mitigation Fees (TIMF) is intended to mitigate the project's contribution to the cumulative traffic impacts for road segments outside of the Ojai Valley.

Intersections: A potentially significant adverse project-specific traffic impact is assumed to occur at any intersection on the Regional Road Network if the project will exceed the thresholds established in Table 4.

Table 4
Threshold of Significance For Changes in Level of Service at Intersections

Significant Changes in LOS	
Intersection Level of Service (Existing)	**Increase in V/C or Trips Greater Than**
LOS A	0.20
LOS B	0.15
LOS C	0.10
LOS D	10 Trips*
LOS E	5 Trips*
LOS F	1 Trip*
*To critical movements. These are the highest combination of left and opposing through/right-turn PHTM.	

If the project involves County General Plan land use designation changes, zone changes or intensification of use, such that the projects impacts could not have been anticipated and were not included in either analysis for the current General Plan or TIMF Program, or the project is located within the boundaries of the Ojai Area Plan, additional cumulative impact analysis and mitigation measures may be required at the discretion of the Director, County PWA - Transportation Department.

City of Camarillo

The City of Camarillo's acceptable level of service for intersections is LOS C or better, with LOS D (V/C 0.83) allowed for short periods of time during the peak hours periods. Project impacts are significant and must be mitigated if they exceed the thresholds listed in Table 5. Mitigation measures must provide a level of service equal to or better than the base conditions.

Table 5
Intersection Threshold Criteria

Existing + Project; Cumulative + Project	Per Lane Critical Project-Added Peak Hour Trips
LOS D	30 Trips
LOS E	20 Trips
LOS F	10 Trips

PROJECT-GENERATED TRAFFIC

Project Trip Generation

Trip generation estimates were calculated for the Somis Ranch Farmworker Housing Project based on the rates presented in the Institute of Transportation Engineers (ITE), Trip Generation, 10th Edition for Multi-Family (Land-Use Code #220).[3] Trip generation for the WWTF was based on operational data assuming 1 employee working on-site part of the day. Table 6 summarizes the average daily, AM and PM peak hour trip generation estimates for the Project.

Table 6
Project Trip Generation

Land Use	Size/Employee	ADT		AM Peak Hour		PM Peak Hour	
		Rate	Trips	Rate	Trips (In/Out)	Rate	Trips (In/Out)
Apartment	360 units	7.32	2,635	0.46	166 (38/128)	0.56	202 (127/75)
Waste Water Treatment Facility	1 Employee	2.00	2	1.00	1 (1/0)	0.00	0 (0/0)
Total Trip Generation:			2,637		167 (39/128)		202 (12/75)

The data presented in Table 6 show that the Somis Ranch Farmworker Housing Project would generate 2,637 average daily trips, 167 AM peak hour trips, and 202 PM peak hour trips.

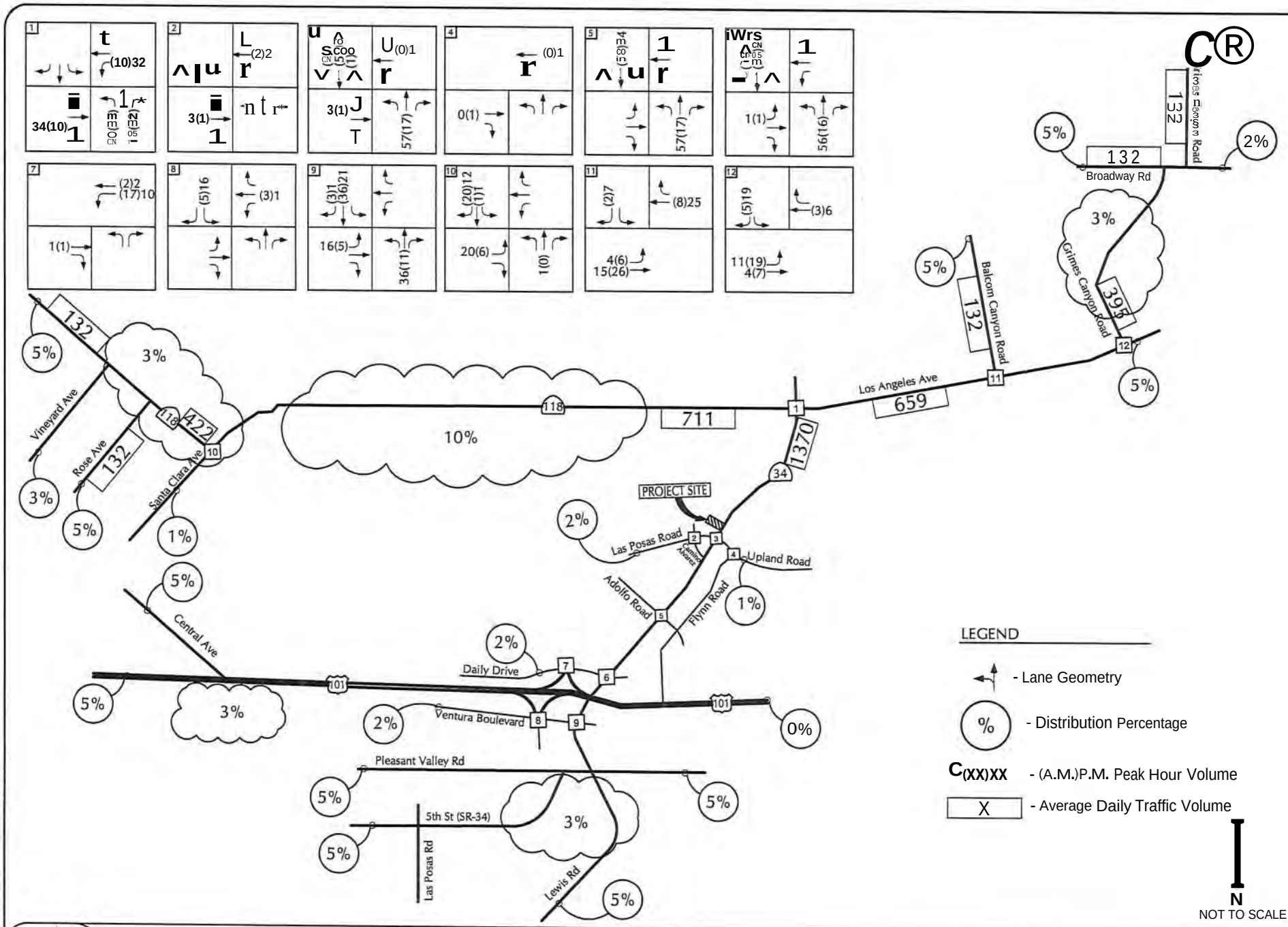
[3] Trip Generation, Institute of Transportation Engineers, 10th Edition, 2017.

Project Trip Distribution and Assignment

Trip distribution percentages for the project was developed based on peak hour operational data provided by the applicant to ATE for use in this traffic study. The proposed Somis Ranch Farmworker Housing Project is located immediately north of the City of Camarillo. Primary access to the site is provided via State Route 34. From the proposed Project site, State Route 34 provides a direct connection north to the community of Somis, State Route 118, the Fas Posas Valley, and south to the City of Camarillo, U.S. Highway 101, and the Oxnard Plain. Both the Fas Posas Valley and the Oxnard Plain have substantial amounts of farms and agricultural operations. In order to accurately distribute and assign trips for the proposed project, an analysis of agricultural operations in both areas was conducted, using geographic information systems (GIS) and data from the Ventura County Agricultural Commissioner's Office. The results of this analysis are discussed in Exhibit "A" located in the Technical Appendix (T-65 -T-71).

Due to the aforementioned acreage amounts in the Oxnard Plain and Fas Posas Valley, 41% of the trips from this Project will be directed towards the Oxnard Plain via State Route 34 and U.S. Highway 101. A substantial of amount of trips (52%) are assumed to travel towards the Fas Posas Valley via Somis Road and State Route 118. Since not all peak hour trips from this Project will be farm work related trips the remaining 7% (local trips) are routed on various surface streets in the City of Camarillo.

Project-generated traffic was distributed and assigned to the study-area street system as presented in Table 7. Figure 5 illustrates the distribution and assignment of project-generated traffic volumes.



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PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

FIGURE 5

JH - ATE#19015

Table 7
Project Trip Distribution

Route	Origin/Destination	Percent
U.S. Highway 101	East West	0% 13%
State Route 118 (Between Santa Clara Avenue and Somis Road)	East West Ag. Fields	5% 16% 10%
State Route 34	South	28%
Santa Clara Avenue	West	1%
Balcom Canyon Road	North	5%
Grimes Canyon Road	North	15%
Las Posas Road-Upland Road	East West	1% 2%
Daily Drive	West	2%
Ventura Boulevard	West	2%
	Total:	**100%**

POTENTIAL TRAFFIC IMPACTS

Project-Specific Impacts

Roadways. Roadway volumes and level of service for the Existing and Existing + Project conditions are listed in Table 8.

Table 8
Existing + Project Daily Roadway Operations

Roadway Segment	Class	Roadway Type	ADT			
			Existing	Existing+ Project	LOS	Impact?
State Route 118						
- east of Balcom Canyon Road	Class I	2-Lane Roadway	19,500	20,159	LOS E	No
- east of Somis Road	Class I	2-Lane Roadway	19.500	20,159	LOS E	No
- west of Somis Road	Class I	2-Lane Roadway	12,200	12,911	LOS D	No
- west of Santa Clara Avenue	Class I	4-Lane Roadway	24,700	25,122	LOS B	No
- west of State Route 232	Class I	4-Lane Roadway	35.500	35,632	LOS C	No
State Route 34						
- south of Los Angeles Avenue	Class I	2-Lane Roadway	14,500	15,870	LOS D	No
Balcom Canyon Road						
- north of Los Angeles Avenue	Class II	2-Lane Roadway	3,000	3,132	LOS B	No
Broadway						
- west of Grimes Canyon Road	Class II	2-Lane Roadway	2,300	2,432	LOS B	No
Central Avenue						
- west of U.S. Highway 101	Class I	2-Lane Roadway	17,000	17,132	LOS D	No
Grimes Canyon Road						
- north of Los Angeles Avenue	Class II	2-Lane Roadway	3,500	3,895	LOS B	No
Las Posas Road						
- south of Pleasant Valley Road	Class I	2-Lane Roadway	10,100	10,232	LOS D	No
Lewis Road						
-south of Pleasant Valley Road	Class I	4-Lane Roadway	19,700	19,832	LOS B	No
Pleasant Valley Road						
- west of Las Posas Road	Class I	2-Lane Roadway	16,200	16,332	LOS E	Yes
Rose Avenue						
- south of Los Angeles Avenue	Class II	2-Lane Roadway	9,100	9,232	LOS D	No

The data in Table 8 show that the Project traffic would generate significant impacts to Pleasant Valley Road based on Ventura County impact criteria. The study-area roadway segments would continue to operate in the LOS "*B*" - "*E*" range based on Ventura County roadway design capacities. Based on Ventura County standards LOS "*E*" and "*D*" are acceptable for State Route 118 and State Route 34. The Ventura County 2040 General Plan Update identifies planned widening improvements for Pleasant Valley Road west of Las Posas Road, State Route 34 and State Route 118. These roads are planned to be widened from 2-lanes to 4-lanes throughout the study-area.

Intersections. Tables 9 and 10 present the Existing and Existing + Project AM and PM peak hour intersection levels of service and identifies impacts based on Ventura County and City of Camarillo thresholds. Figure 6 illustrates the AM and PM peak hour Existing + Project traffic volumes.

Table 9
Existing + Project AM Peak Hour Intersection Operations

Intersection	Control	AM Peak Hour		Impact?
		Existing	Existing + Project	
		ICU-LOS	ICU-LOS	
State Route 118/Santa Clara Avenue	Signal	0.88-LOS D	0.88-LOS D	No
State Route 118/Somis Road	Signal	0.80-LOS C	0.83-LOS D	No
State Route 118/Balcom Canyon Road	Signal	0.65-LOS B	0.66-LOS B	No
State Route 118/Grimes Canyon Road	Signal	0.68-LOS A	0.68-LOS A	No
Las Posas Road/Camino Alvarez	Signal	0.38-LOS A	0.38-LOS A	No
Somis Road/Las Posas Road	Signal	0.53-LOS A	0.53-LOS A	No
Upland Road/Flynn Road	Signal	0.44-LOS A	0.44-LOS A	No
Lewis Road/Adolfo Road	Signal	0.57-LOS A	0.57-LOS A	No
Lewis Road/Daily Drive	Signal	0.49- LOS A	0.50-LOS A	No
U.S. Highway 101/Daily Drive	Signal	0.38-LOS A	0.39-LOS A	No
U.S. Highway 101 SB Ramps/Ventura Boulevard	Signal	0.30-LOS A	0.30-LOS A	No
Lewis Road/Ventura Boulevard	Signal	0.37-LOS A	0.38-LOS A	No

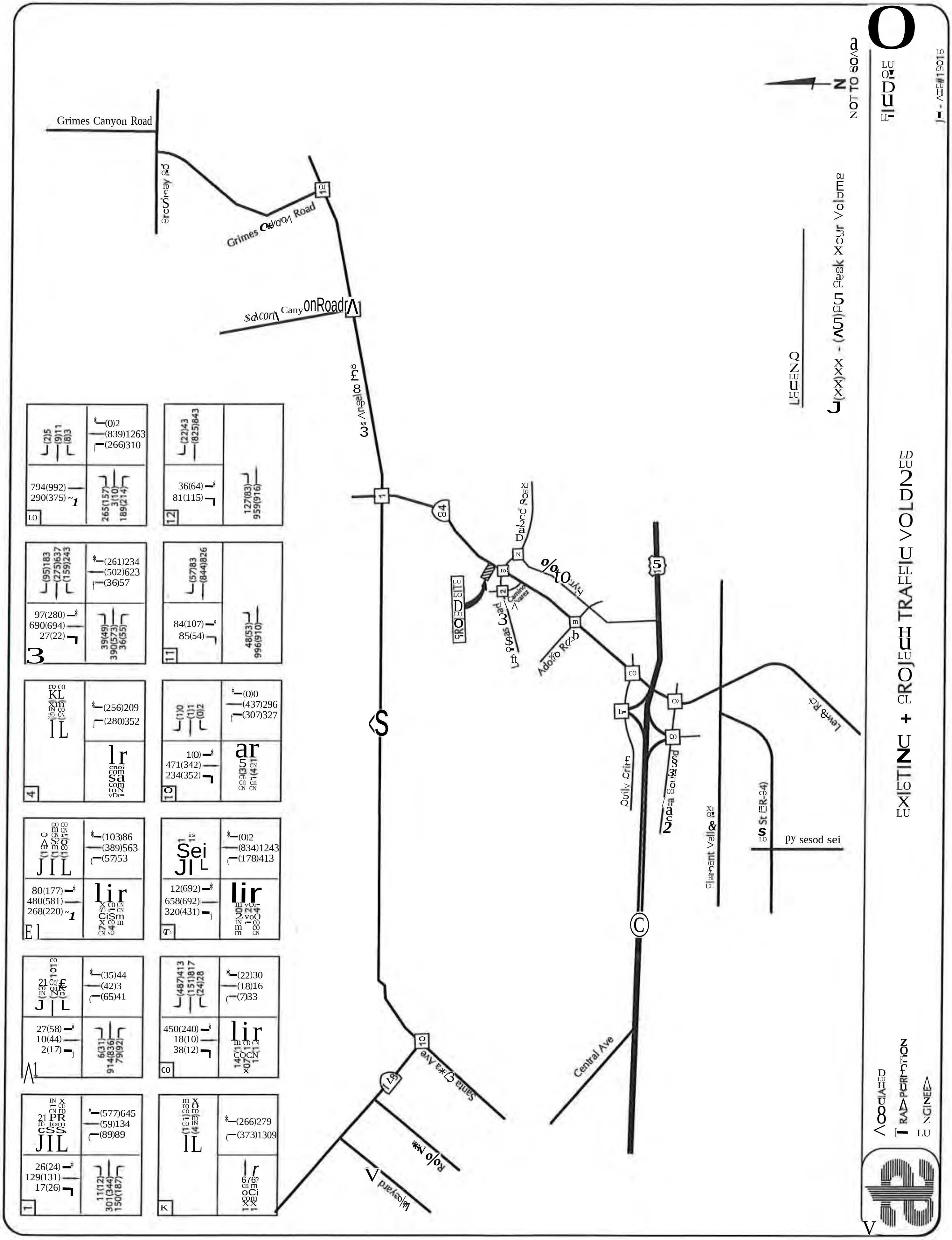

Grimes Canyon Road
Central Ave
NOT TO SCALE
N

Table 10
Existing + Project PM Peak Hour Intersection Operations

Intersection	Control	PM Peak Hour		Impact?
		Existing	Existing + Project	
		ICU-LOS	ICU-LOS	
State Route 118/Santa Clara Avenue	Signal	0.86-LOS D	0.87-LOS D	No
State Route 118/Somis Road	Signal	0.74-LOS C	0.79-LOS C	No
State Route 118/Balcom Canyon Road	Signal	0.67-LOS B	0.68-LOS B	No
State Route 118/Grimes Canyon Road	Signal	0.66-LOS B	0.67-LOS B	No
Las Posas Road/Camino Alvarez	Signal	0.36-LOS A	0.36-LOS A	No
Somis Road/Las Posas Road	Signal	0.52-LOS A	0.54-LOS A	No
Upland Road/Flynn Road	Signal	0.38-LOS A	0.38-LOS A	No
Lewis Road/Adolfo Road	Signal	0.53-LOS A	0.54 LOS A	No
Lewis Road/Daily Drive	Signal	0.51-LOS A	0.52 LOS A	No
U.S. Highway 101/Daily Drive	Signal	0.62-LOS B	0.62-LOS B	No
U.S. Highway 101 SB Ramps/Ventura Boulevard	Signal	0.61-LOS B	0.62-LOS B	No
Lewis Road/Ventura Boulevard	Signal	0.52-LOS A	0.53-LOS A	No

The data in Tables 9 and 10 show that the Project would not significantly impact any of the study-area intersections based on Ventura County and City of Camarillo impact thresholds.

CUMULATIVE (EXISTING + APPROVED/PENDING PROJECTS) ANALYSIS

Ventura County and City of Camarillo require that the roadways and intersections be analyzed with the addition of traffic generated by projects which have been approved or are pending within the study-area that could impact the facilities. Cumulative traffic can be developed either by using the Ventura County traffic model or a list of cumulative projects. The Cumulative (Existing + Approved/Pending Projects) traffic volumes were forecast for the study-area roadways and intersections assuming development of 17 approved and pending projects located within unincorporated Ventura County and the City of Camarillo. The development activity list for the City of Camarillo and County of Ventura are contained in the Technical Appendix (T-81 - T-96). Figure 7 illustrates the location of the approved and pending projects. Trip generation estimates were developed for the approved/pending projects using trip generation average rates published in the ITE, Trip Generation, 10th Edition. Trip generation for the 3 developments located in Ventura County were provided by County staff. Table 11 summarizes the trip generation for the approved/pending development projects.

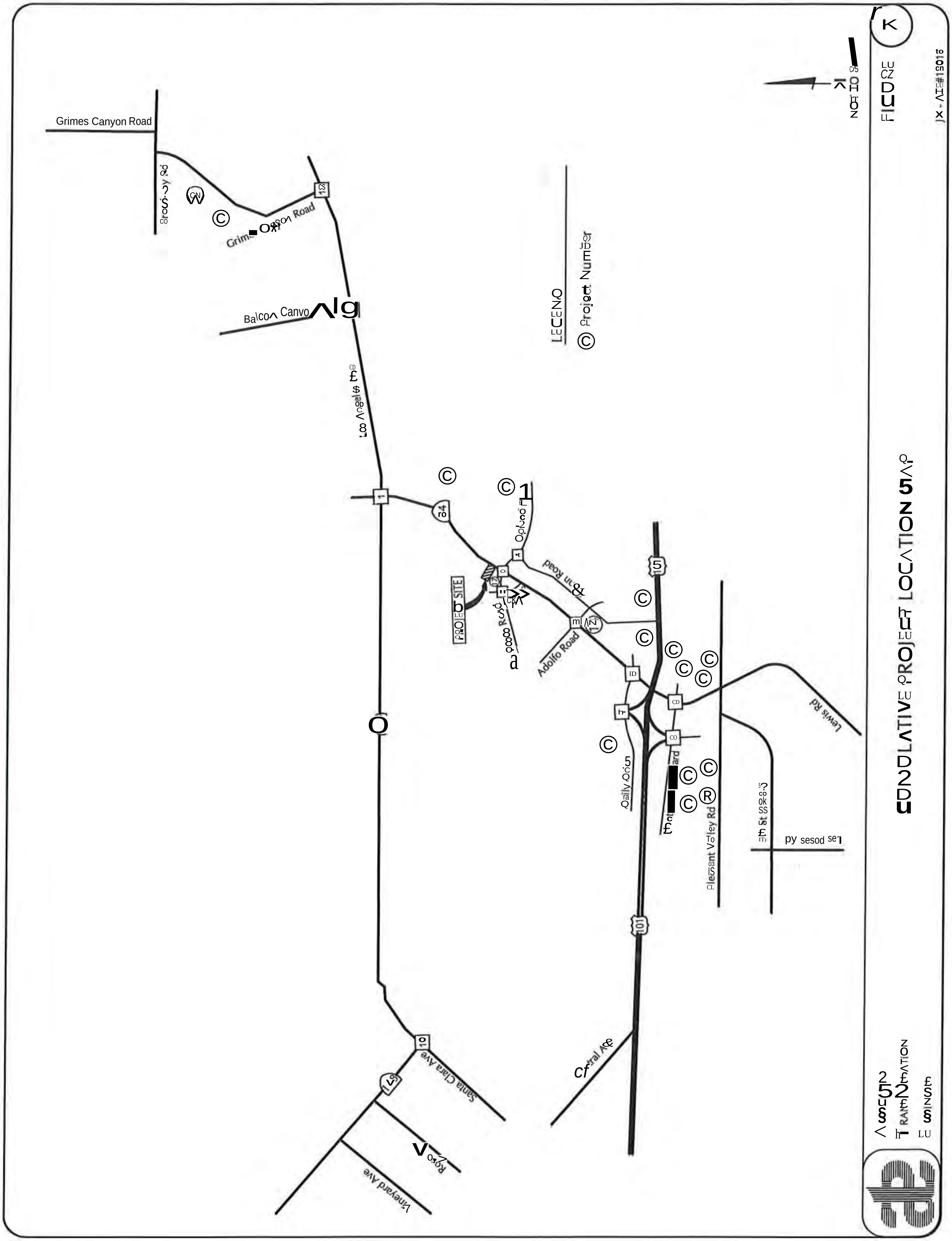
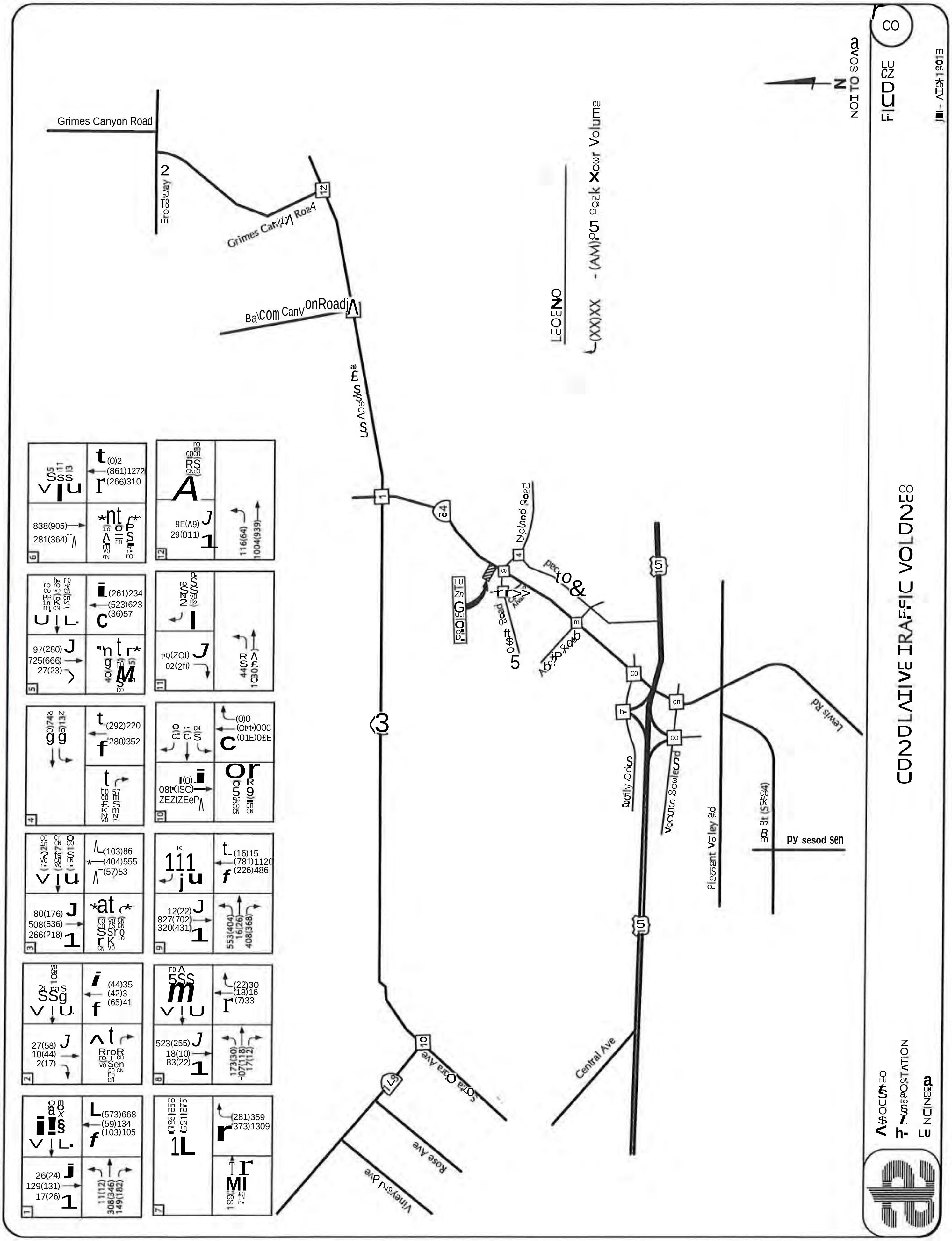

Grimes Canyon Road
Adolfo Road
Lewis Rd
Santa Clara Ave
Vineyard Ave
PROJECT SITE
101
Project Number
Las Posas Rd

Table 11
Approved/Pending Development Projects Trip Generation

No.	jurisdiction	Project	Land Use/ITE LU Code	Size	ADT	Trips	
						AM Peak Hour	PM Peak Hour
1.	Ventura County	PL15-0014	Wholesale Lumberyard	18.9 acres	164	16	16
2.	Ventura County	PL18-0081	Organics Processing	17.2 acres	40	4	4
3.	Ventura County	PL18-0109	Dog Kennel	20 acres	50	5	5
4.	City of Camarillo	CUP-307(2) CPD-236M(1)	Apartments/(#220) Retail Commercial/(#820)	10 units 8,000 sq.ft.	73 302	5 8	6 30
5.	City of Camarillo	RPD-188	Condominiums/(#220)	87 units	637	40	49
6.	City of Camarillo	CUP-330	Apartments/(#220) Retail Commercial/(#820)	23 units 6,100 sq.ft.	168 230	10 6	13 23
7.	City of Camarillo	RPD-199	Single Family Res./(#210)	4 units	38	3	4
8.	City of Camarillo	RPD-189M(2)	Apartments/(#220)	96 units	703	44	54
9.	City of Camarillo	RPD-196 CUP-369 CUP-369	Townhomes/(#220) Apartments/(#220) Retail Commercial/(#820)	285 units 24 units 12,000 sq.ft.	2,086 176 453	131 11 11	160 13 46
10.	City of Camarillo	RPD-198	Senior Housing[a]	281 units	2,118	168	166
11.	City of Camarillo	RPD-202	Townhomes/(#220)	6 units	44	3	3
12.	City of Camarillo	CUP-391	Apartments/(#220) Retail Commercial/(#820)	12 units 1,400 sq.ft.	88 53	6 1	7 5
13.	City of Camarillo	RPD-203	Single Family Res./(#210)	2 units	19	1	2
14.	City of Camarillo	CUP-383	Micro Brewery/(#970)	11,836 sq.ft.	544	12	86
15.	City of Camarillo	IPD-53M(9)	Light Industrial/(#110)	4,800 sq.ft.	24	3	3
16.	City of Camarillo	CUP-364M(1)	Brewery/(#932)	24,102 sq.ft.	2,704	0	235
17.	City of Camarillo	CUP-394	Groundwater Treatment[1^]	9 employees	32	4	4
				Total Trips:	10,746	492	934

(a) Trip generation from the traffic study prepared for the St. John's Seminary Residential Project prepared by Stantec.
(b) Trip generation from the operational data in the SEIR for North Pleasant Valley Groundwater Treatment Facility.

The data presented in Table 11 indicate that the 17 approved and pending projects would generate a total of 10,746 average daily trips, 492 AM peak hour trips and 934 PM peak hour trips. The approved and pending projects' peak hour traffic volumes were distributed and assigned to the study-area roadways and intersections. The trip assignment for the approved and pending projects was developed based on the location of each project, approved traffic studies, existing traffic patterns observed in the study-area as well as a general knowledge of the population, employmentand commercial centers in and surroundingthe study-area. Figure 8 illustrates the Cumulative AM and PM peak traffic volumes.


CUMULATIVE TRAFFIC VOLUMES
LEGEND
(XX)XX - (AM)PM Peak Hour Volume
NOT TO SCALE
Grimes Canyon Road
Balcom Canyon Road
Lewis Rd
Central Ave
Rose Ave
Pleasant Valley Rd
Associated Transportation Engineers

Cumulative Impacts

Roadways. Roadway volumes and LOS for the Cumulative and Cumulative + Project conditions are listed in Table 12.

Table 12
Cumulative + Project Daily Roadway Operations

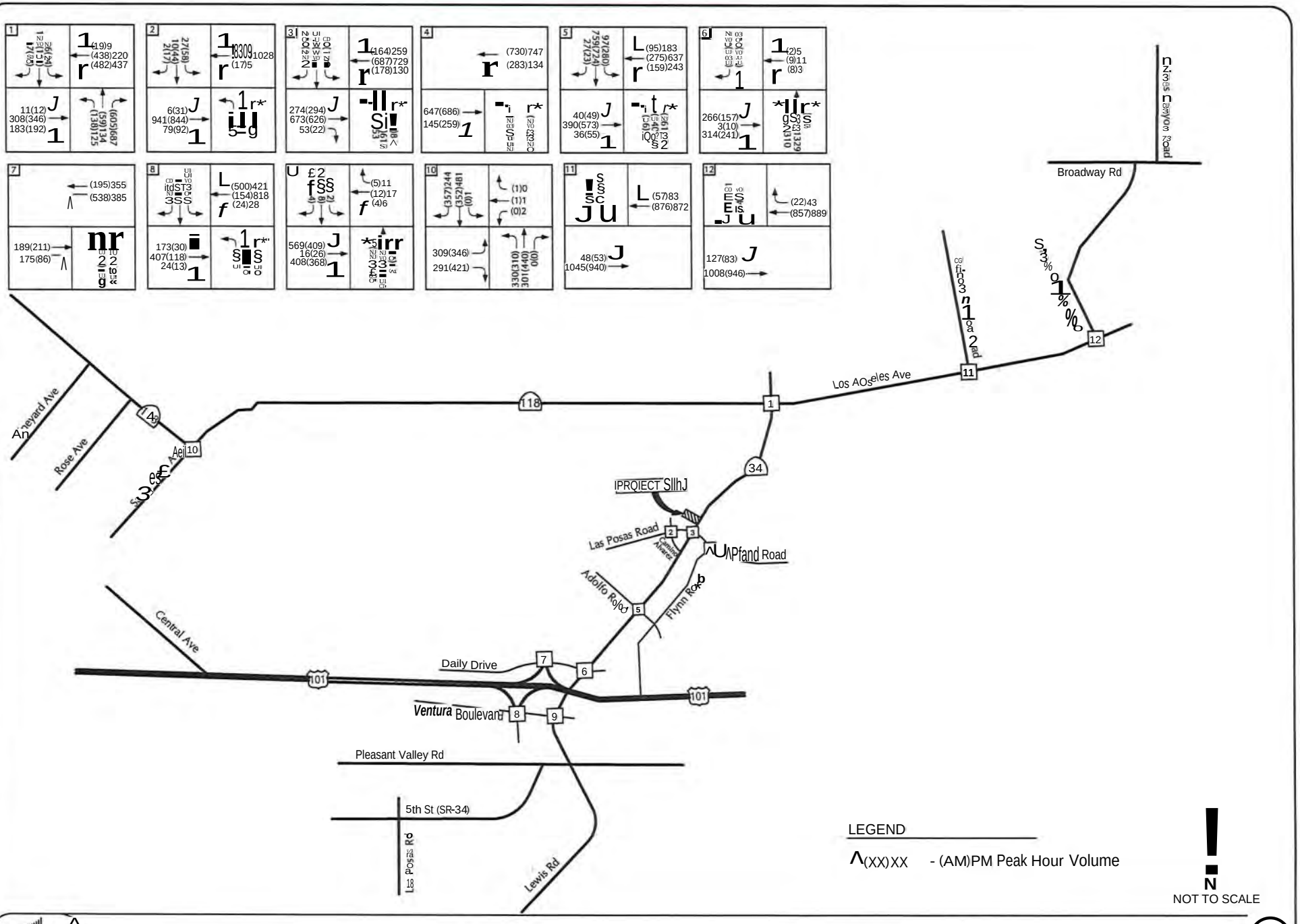
Roadway Segment	Class	Roadway Type	ADT			
			Cumulative	Cumulative + Project	LOS	Impact?
State Route 118						
- east of Balcom Canyon Road	Class I	2-Lane Roadway	21,450	22,109	LOS E	No
- east of Somis Road	Class I	2-Lane Roadway	21,450	22,109	LOS E	No
- west of Somis Road	Class I	2-Lane Roadway	13,400	14,111	LOS D	No
- west of Santa Clara Avenue	Class I	4-Lane Roadway	27,200	27,622	LOS B	No
- west of State Route 232	Class I	4-Lane Roadway	39,000	39,132	LOS D	No
State Route 34						
- south of Los Angeles Avenue	Class I	2-Lane Roadway	15,200	16,570	LOS D	No
Balcom Canyon Road						
- north of Los Angeles Avenue	Class II	2-Lane Roadway	3,300	3,432	LOS B	No
Broadway						
- west of Grimes Canyon Road	Class II	2-Lane Roadway	2,500	2,632	LOS B	No
Central Avenue						
- west of U.S. Highway 101	Class I	2-Lane Roadway	18,700	18,832	LOS D	No
Grimes Canyon Road						
- north of Los Angeles Avenue	Class II	2-Lane Roadway	3,900	4,295	LOSC	No
Las Posas Road						
- south of Pleasant Valley Road	Class I	2-Lane Roadway	11,100	11,232	LOS D	No
Lewis Road						
- south of Pleasant Valley Road	Class I	4-Lane Roadway	21,700	21,832	LOS B	No
Pleasant Valley Road						
- west of Las Posas Road	Class I	2-Lane Roadway	17,800	17,932	LOS E	Yes
Rose Avenue						
- south of Los Angeles Avenue	Class II	2-Lane Roadway	10,000	10,132	LOS D	No

The data in Table 12 show that the Project would significantly impact Pleasant Valley Road west of Las Posas Road based on Ventura County impact criteria. The study-area roadway segments would operate in the LOS "*B*" - "*E*" range based on Ventura County roadway design capacities. Based on Ventura County standards LOS "*E*" is acceptable for State Route 118 and State Route 34. The Ventura County 2040 General Plan Update identifies planned widening improvements for Pleasant Valley Road west of Las Posas Road, State Route 34 and State Route 118. These roads are planned to be widened from 2-lanes to 4-lanes throughout the study-area. The Project's cumulative impacts would be mitigated by the payment of the County traffic impact mitigation fees.

Intersections. Tables 13 and 14 present the Cumulative and Cumulative + Project AM and PM peak hour intersection levels of service and identifiers impacts based on Ventura County and City of Camarillo thresholds. Figure 9 illustrates the AM and PM peak hour Cumulative + Project traffic volumes.

Table 13
Cumulative + Project AM Peak Hour Intersection Operations

Intersection	Control	AM Peak Hour		Impact?
		Cumulative	Cum. + Project	
		ICU-LOS	ICU-LOS	
State Route 118/Santa Clara Avenue	Signal	0.89-LOS D	0.89-LOS D	No
State Route 118/Somis Road	Signal	0.82-LOS D	0.86-LOS D	No
State Route 118/Balcom Canyon Road	Signal	0.67-LOS B	0.68-LOS B	No
State Route 118/Grimes Canyon Road	Signal	0.70-LOS B	0.70-LOS B	No
Las Posas Road/Camino Alvarez	Signal	0.38-LOS A	0.38-LOS A	No
Somis Road/Las Posas Road	Signal	0.55-LOS A	0.56-LOS A	No
Upland Road/Flynn Road	Signal	0.48-LOS A	0.48-LOS A	No
Lewis Road/Adolfo Road	Signal	0.58-LOS A	0.59-LOS A	No
Lewis Road/Daily Drive	Signal	0.49-LOS A	0.51-LOS A	No
U.S. Highway 101 NB Ramps/Daily Drive	Signal	0.41-LOS A	0.42-LOS A	No
U.S. Highway 101 SB Ramps/Ventura Boulevard	Signal	0.31-LOS A	0.31-LOS A	No
Lewis Road/Ventura Boulevard	Signal	0.40-LOS A	0.41-LOS A	No



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CUMULATIVE + PROJECT TRAFFIC VOLUMES

FIGURE

JH - ATE#19015

Table 14
Cumulative + Project PM Peak Hour Intersection Operations

Intersection	Control	PM Peak Hour		Impact?
		Cumulative	Cum. + Project	
		ICU-LOS	ICU-LOS	
State Route 118/Santa Clara Avenue	Signal	0.87-LOS D	0.88-LOS D	No
State Route 118/Somis Road	Signal	0.81-LOS D	0.85-LOS D	No
State Route 118/Balcom Canyon Road	Signal	0.70-LOS B	0.71-LOS C	No
State Route 118/Grimes Canyon Road	Signal	0.69-LOS B	0.70-LOS B	No
Las Posas Road/Camino Alvarez	Signal	0.36-LOS A	0.36-LOS A	No
Somis Road/Las Posas Road	Signal	0.54-LOS A	0.56-LOS A	No
Upland Road/Flynn Road	Signal	0.40-LOS A	0.40-LOS A	No
Lewis Road/Adolfo Road	Signal	0.54-LOS A	0.56-LOS A	No
Lewis Road/Daily Drive	Signal	0.52-LOS A	0.53-LOS A	No
U.S. Highway 101 NB Ramps/Daily Drive	Signal	0.63-LOS B	0.63-LOS B	No
U.S. Highway 101 SB Ramps/Ventura Boulevard	Signal	0.65-LOS B	0.65-LOS B	No
Lewis Road/Ventura Boulevard	Signal	0.60-LOS A	0.61-LOS B	No

The data in Tables 13 and 14 show that the Project traffic would not significantly impact the remaining study-area intersection during the AM and PM peak hour periods based on Ventura County and City of Camarillo impact thresholds.

SITE ACCESS

Regional access to the Somis Ranch Farmworker Housing Project is provided by U.S. Highway101 and State Route 118. Direct access to the Project will be provided via two shared access connections to Somis Road (State Route 34) with the North Pleasant Valley Groundwater Treatment Facility and De-Salter. The City of Camarillo will construct a new access connection to Somis Road and improve an existing connection to Somis Road approximately 660 feet apart as part of the North Pleasant Valley Groundwater Treatment Facility and De-Salter. A shared access agreement has been established which allows the Project to utilize the two driveway connections. The segment of Somis Road adjacent to the site access is relatively straight and level, providing good sight distance. The City of Camarillo will be required to construct the access connections to Somis Road to County of Ventura and Caltrans design standards. The two access connections to Somis Road will be designed to County Fire Department design standards to provide emergency vehicles access.

Signal Warrants

A signal warrant analysis was conducted for the Somis Road/Northern Project Access intersection and the Somis Road/Southern Project Access intersection. The traffic signal warrant analysis was completed based on the Manual on Uniform Traffic Control Devices (MUTCD), California Supplement, 8-Hour, 4-Hour and Average Daily Traffic vehicular volume warrant criteria. The posted speed limit on Somis Road is 50/40 mph in a community of less than 10,000 population, therefore the Rural warrants apply. The Project trip assignment at the Northern Project access driveway assumes no back tracking to travel south to the City of Camarillo and U.S. Highway 101. The Project trip assignment at the Southern Project access driveway assumes no back tracking to travel north to State Route 118. The Project hourly volumes were developed based on data published in the Caltrans, Progress Report on Trip Ends Generation Research Counts, 10th Edition. This report provides an hourly distribution of ADT trips over a 24 hour period. For various land uses including apartments. Tables 15 and 16 summarize the results of the signal warrant analysis.

Table 15
Signal Warrant Results - Project Northern Access

Warrant	Type	Warrant Satisfied ?		
		Existing	Existing + Project	Cumulative + Project
1	8-Hour			
	Condition "A"	No	No	No
	Condition "B"	No	No	No
2	4-Hour	No	No	No
ADT	ADT			
	Condition "A"	No	No	No
	Condition "B"	No	No	No

The approach volumes on the minor street at the Somis Road/Project Northern Access intersection do not satisfy the 8-Hour and the 4-Hour vehicular volume warrants under the Existing + Project and Cumulative + Project scenarios. In order to satisfy the 8-Hour warrant, a minimum of 53 vehicles per hour are necessary on the minor street approach with one lane. In order to satisfy the 4-Hour warrant, a minimum of 60 vehicles per hour are necessary on the minor street approach with one lane. The traffic volumes generated by the Somis Ranch Farmworker Housing development are below 53 vehicles per hour during both the 8 hour and the 4 hour period. Neither Condition "A" or "B" of the 8-Hour volumes warrant is 80 percent satisfied. Signal warrant worksheets are contained in the Technical Appendix (T-72 - T-75).

The approach volumes on the minor street at the Somis Road/Project Northern Access intersection do not satisfy the ADT vehicular volume warrants under the Existing + Project and Cumulative + Project scenarios. In order to satisfy the ADT warrant, a minimum of 850 vehicles per day in one direction are necessary on the minor street approach with one lane. The estimated exiting traffic volumes generated by the Somis Ranch Farmworker Housing development is 685 (2,635 ADT/2*52%) vehicles per day.

Table 16
Signal Warrant Results - Project Southern Access

Warrant	Type	Warrant Satisfied ?		
		Existing	Existing + Project	Cumulative + Project
1	8-Hour Condition "A" Condition "B"	 No No	 No No	 No No
2	4-Hour	No	Yes	Yes
	ADT Condition "A" Condition "B"	 No No	 No No	 No No

The approach volumes on the minor street at the Somis Road/Project Southern Access intersection do not satisfy the 8-Hour volume warrant under the Existing + Project and Cumulative + Project scenarios. In order to satisfy the 8-Hour warrant, a minimum of 53 vehicles per hourare necessary on the minor street approach with one lane. NeitherCondition "A" or "B" of the 8-Hour volumes warrant is 80 percent satisfied. The approach volumes on the minor street at the Somis Road/Project Southern Access intersection do satisfy the 4-Hour volume warrant under the Existing + Project and Cumulative + Project scenarios. In order to satisfy the 4-Hour warrant, a minimum of 60 vehicles per hour are necessary on the minor street approach with one lane. Signal warrant worksheets are contained in the Technical Appendix (T-76 - T-79).

The approach volumes on the minor street at the Somis Road/Project Southern Access intersection do not satisfy the ADT vehicular volume warrants under the Existing + Project and Cumulative + Project scenarios. In order to satisfy the ADT warrant, a minimum of 850 vehicles per day in one direction are necessary on the minor street approach with one lane. The estimated exiting traffic volumes generated by the Somis Ranch Farmworker Housing development is 632 (2,635 ADT/2*48%) vehicles per day.

Left-Turn Lane Analysis

County staff requested that the Project driveways on Somis Road be evaluated to determine the need for left-turn lanes. The following section provides a discussion the left-turn lane evaluation at the Project access driveways.

Somis Road/Project Northern Access: The need for a northbound left-turn lane on Somis Road to accommodate left-turns into the Project site was assessed based on criteria outlined in the NCHRP Report 279. That report established guidelines for determining the need for left-turn lanes based on the mix of left-turns and through volumes on 2-lane roadways. The results of the analysis forthe Project Northern access on Somis Road shows that a separate left-turn lane is warranted (NCHRP Report 279 warrant graph is contained in the Technical Appendix T-80).

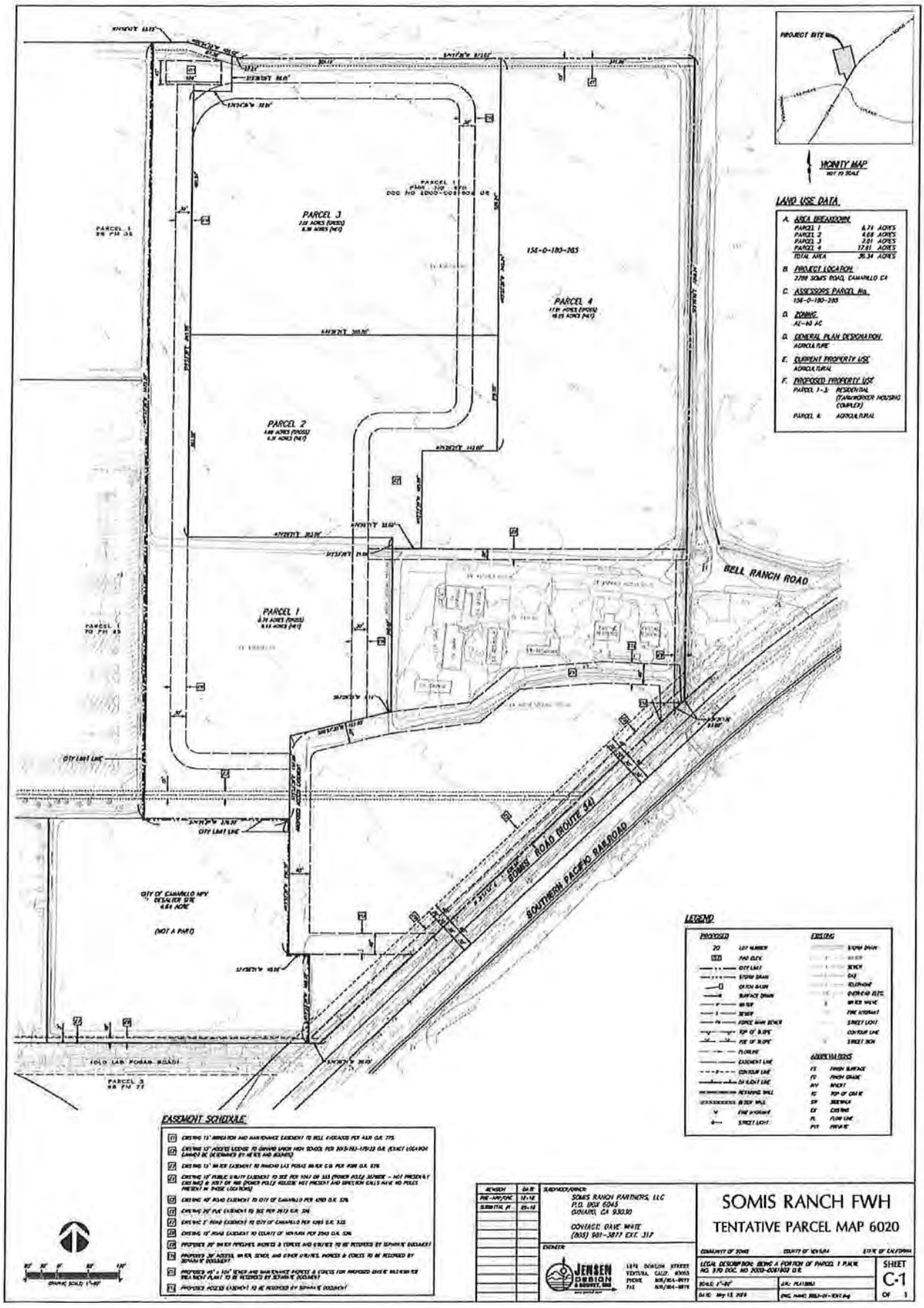
Somis Road/Project Southern Access: The need for a northbound left-turn lane on Somis Road to accommodate left-turns into the Project site was assessed based on criteria outlined in the NCHRP Report 279. That report established guidelines for determining the need for left-turn lanes based on the mix of left-turns and through volumes on 2-lane roadways. The results of the analysis for the Project Southern access on Somis Road shows that a separate left-turn lane is warranted (NCHRP Report 279 warrant graph is contained in the Technical Appendix T-80). There is an existing left-turn lane on Somis Road just south of the proposed new access connection. The existing left-turn lane would be extend to the proposed access connection.

Based on Caltrans Highway Design Manual standards 325 feet of left-turn storage would be sufficient to accommodate the left-turn movements into the Project. As shown on Figure 10, the two proposed driveway connections to State Route 34 are separated by approximately 660 feet. There is adequate distance to accommodate the left-turn lanes without any turning conflict.

Right-Turn Lane Analysis

County staff requested that the Project driveways on Somis Road be evaluated to determine the need for right-turn lanes. There are no specific Caltrans warrant criteria for "Right-Turn" lanes, however given the estimated right-turn volume in the PM peak hour (66) it is recommended that a right-turn lane be provided at the Project's northern access. As discussed previously, the City of Camarillo will construct the Project's southern access connection to Somis Road. The City of Camarillo will be required to construct the southern access connection to County of Ventura and Caltrans design standards. The two access connections to Somis Road will also be designed to County Fire Department design standards to provide emergency vehicles access.

Based on Caltrans Highway Design Manual standards 150 feet of right-turn storage would be sufficient to accommodate the right-turn movements into the Project.



ASSOCIATED
T RANSPORTATION
E NGINEERS

PROJECT DRIVEWAY CONNECTION

FIGURE 10

JH - ATE#19015

SAFE ROUTES TO SCHOOL

There is a high school located within walking distance of the Project site. The Rancho Campana High School is located at 4235 Mar Vista Drive directly adjacent to the Project's western boundary. The Somis Ranch Farmworker Housing Project (Phase I) will provide cross-access to the high school via a gated access connection to the school parking lot. This will allow students within the Project to walk directly to the high school without having to access major streets.

VENTURA COUNTY GENERAL PLAN CONSISTENCY

Pleasant Valley Road has an adopted LOS "D" standard per Ventura County General Plan policy 4.2.2.3(a). The findings of the traffic study conclude that Pleasant Valley Road west of Las Posas Road currently operates at LOS "E" and will continue to operate at LOS "E" with the addition of Project and cumulative traffic.

Ventura County General Plan policy 4.2.2.5 requires discretionary development that would individually cause a County thoroughfare such as Pleasant Valley Road to operate worse than LOS "D" to be prohibited unless feasible mitigation measures are adopted.

However, Ventura County General Plan policy 4.2.2.5(a) allows for an exception for farmworker housing development. Therefore, the Project is consistent with the Ventura County General Plan.

The County has adopted a Traffic Improvement Fee Program to offset the capital improvement cost required to implement traffic mitigation measures to accommodate cumulative developments within the County. The Project would also be consistent with the Ventura County General Plan by paying the "Traffic Impact Mitigation Fee".

■ ■ ■

STUDY PARTICIPANTS AND REFERENCES

Associated Transportation Engineers

Richard L. Pool, P.E. Principal Engineer
Scott A. Schell, AICP, PTP, Principal Planner
Darryl F. Nelson, Senior Transportation Planner
Jiho Ha, Transportation Engineer I

References

2017 Traffic Volumes on California State Highways, California Department of Transportation.

Ventura County Initial Study Assessment Guidelines - Public Roads and Highways Level of Service, County of Ventura Public Works Agency Transportation Department, 2000.

Highway Capacity Manual, Transportation Research Board, National Research Council, 2000.

Ventura County Congestion Management Program Update, Ventura County Transportation Commission, July 2009.

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Persons Contacted

Anitha Balan, Ventura County Public Works Department
Darren Arrieta, Ventura County Public Works Department

TECHNICAL APPENDIX

CONTENTS:

LEVEL OF SERVICE DEFINITIONS

Signalized Intersection Level of Service Definitions

LOS	Delay[a]	V/C Ratio	Definition
A	< 10.0	< 0.60	Progression is extremely favorable. Most vehicles arrive during the green phase. Many vehicles do not stop at all.
B	10.1 - 20.0	0.61 - 0.70	Good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
C	20.1 - 35.0	0.71 - 0.80	Only fair progression, longer cycle lengths, or both, result in higher cycle lengths. Cycle lengths may fail to serve queued vehicles, and overflow occurs. Number of vehicles stopped is significant, though many still pass through intersection without stopping.
D	35.1 - 55.0	0.81 - 0.90	Congestion becomes more noticeable. Unfavorable progression, long cycle lengths and high v/c ratios result in longer delays. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55.1 - 80.0	0.91 - 1.00	High delay values indicate poor progression, long cycle lengths and high v/c ratios. Individual cycle failures are frequent
F	> 80.0	> 1.00	Considered unacceptable for most drivers, this level occurs when arrival flow rates exceed the capacity of lane groups, resulting in many individual cycle failures. Poor progression and long cycle lengths may also contribute to high delay levels.

[a] Average control delay per vehicle in seconds.

Unsignalized Intersection Level of Service Definitions

The HCM[1] uses *control delay* to determine the level of service at unsignalized intersections. Control delay is the difference between the travel time actually experienced at the control device and the travel time that would occur in the absence of the traffic control device. Control delay includes deceleration from free flow speed, queue move-up time, stopped delay and acceleration back to free flow speed.

LOS	Control Delay Seconds per Vehicle
A	< 10.0
B	10.1 - 15.0
C	15.1 - 25.0
D	25.1 - 35.0
E	35.1 - 50.0
F	> 50.0

1 Highway Capacity Manual, National Research Board, 2000

DISCUSSION OF INTERSECTION CAPACITY UTILIZATION (ICU)

The ability of a roadway to carry traffic is referred to as capacity. The capacity is usually less at intersections because traffic flows continuously between them and only during the green phase at them. Capacity at intersections is best defined in terms of vehicles per lane per hour of green. The technique used to compare the volumes and capacity of an intersection is known as Intersection Capacity Utilization (ICU). ICU or volume-to-capacity ratio, usually expressed as a percentage, is the proportion of an hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity. If an intersection is operating at 80 percent of capacity, then 20 percent of the signal cycle is not used.

The ICU calculation assumes that an intersection is signalized and that the signal is ideally timed. Although calculating ICU for an unsignalized intersection is invalid, the presumption is that a signal can be installed and the calculation shows whether the geometrics are capable of accommodating the expected volumes. It is possible to have an ICU well below 100 percent, yet have severe traffic congestion. This would occur if one or more movements is not getting sufficient time to satisfy its demand, and excess time exists on other movements. This is an operational problem which should be addressed.

Capacity is often defined in terms of roadway width. However, standard lanes have approximately the same capacity whether they are 11 or 14 feet wide. Data collected by Kunzman Associates indicates a typical lane, whether a through-lane or a left-turn lane, has a capacity of approximately 1,700 vehicles per hour, with nearly all locations showing a capacity greater than 1,600 vehicles per hour per lane. This finding is published in the August, 1978 issue of ITE Journal in the article entitled, "Another Look at Signalized Intersection Capacity" by William Kunzman. For this study, a capacity of 1,600 vehicles per hour per lane will be assumed for left-turn, through, and right-turn lanes as per City policy.

The yellow time can either be assumed to be completely used and no penalty applied, or it can be assumed to be only partially usable. Total yellow time accounts for less than 10 percent of a cycle, and a penalty of up to five percent is reasonable. On the other hand, during peak hour traffic operation, the yellow times are nearly completely used. In this study, no penalty will be applied for the yellow because the capacities have been assumed to be only 1,600 vehicles per hour per lane when in general they are 1,700-1,800 vehicles per hour per lane.

The ICU technique is an ideal tool to quantify existing as well as future intersection operations. The impact of adding a lane can be quickly determined by examining the effect the lane has on the intersection capacity utilization.

Source: Oxnard Airport Business Park Traffic Study, Kunzman Assoc., City of Oxnard, 1985.

ENGINEERING ROADWAY DESIGN CAPACITIES

FIGURE 4.2.2

AVERAGE DAILY TRAFFIC (ADT) LEVEL OF SERVICE (LOS) THRESHOLDS COUNTY ROADS AND CONVENTIONAL STATE HIGHWAYS					
	CLASS I			CLASS II	CLASS III
LOS	2 LANES	4 LANES	6 LANES	2 LANES	2 LANES
A	2,400	19,000	29,000	1,500	350
B	5,600	28,000	42,000	3,900	2,000
C	10,000	38,000	57,000	7,000	3,300
D	16,000	47,000	70,000	11,000	5,900
E	27,000	58,000	87,000	21,000	16,000

ADT/LOS THRESHOLDS FREEWAYS				
LOS	4 LANES	6 LANES	8 LANES	10 LANES
A	31,000	46,000	62,000	77,000
B	48,000	71,000	95,000	119,000
C	68,000	102,000	136,000	169,000
D	82,000	123,000	164,000	205,000
E	88,000	132,000	176,000	220,000

SOURCE: VENTURA COUNTY PUBLIC WORKS AGENCY 9/94

R. 12/20/94

INTERSECTION COUNT DATA

2017 Traffic Volumes : Route 118-133

Jump to Route: | 1 | 2-4 | 5-6 | 7-10 | 11-15 | 16-20 | 21-33 | 34-43 | 44-50 | 51-59 | 60-70 | 71-80 | 82-86 | 87-91 | 92-95 | 99 | 101 | 103-116 | 118-133 | 134-161 | 163-163 | 164-178 | 180-197 | 198-220 | 221-275 | 280-405 | 505-880

Dist	Rte	Rte Suffix	CO	Post Mile Prefix	Post Mile	Post Mile Suffix	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
07	118		VEN		0.516		VENTURA, JCT. RTE. 126				3950	39000	36000
07	118		VEN	R	1.019		TELEPHONE ROAD	3950	39000	36000	4250	44500	40000
07	118		VEN		2.300		JCT. RTE. 232	3650	35500	35500	3450	36500	24700
07	118		VEN		4.160		SANTA CLARA AVENUE	2450	26500	24700	1400	15100	14000
07	118		VEN		10.920		JCT. RTE. 34	1150	13100	13200	1800	21500	19500
07	118		VEN		14.696		GRIMES CANYON ROAD	1600	21500	19500	1650	22000	20200
07	118		VEN	R	17.494		MOORPARK, WEST JCT. RTE. 23	2450	31500	29000	3200	36500	38000
07	118		VEN	R	17.905		MOORPARK, EAST JCT. RTE. 23	3200	36500	38000	6900	83000	82000
07	118		VEN	T	18.127		MOORPARK, PRINCETON AVENUE	6900	83000	82000	6600	83000	82000
07	118		VEN	T	19.981		MOORPARK, COLLINS DRIVE	6600	83000	82000	7300	92000	77000
07	118		VEN	R	21.022		SIMI VALLEY, MADERA ROAD	7300	87000	77000	6900	85000	94000
07	118		VEN	R	23.821		SIMI VALLEY, FIRST STREET	6900	96000	94000	10300	114000	108000
07	118		VEN	R	24.809		SIMI VALLEY, ERRINGER ROAD	10300	114000	108000	12100	130000	123000
07	118		VEN	R	25.813		SIMI VALLEY, SYCAMORE DRIVE	12100	130000	123000	11100	140000	129000
07	118		VEN	R	27.304		SIMI VALLEY, TAPO CANYON ROAD	11100	140000	129000	12500	152000	139000
07	118		VEN	R	28.815		SIMI VALLEY, STEARNS STREET	12500	153000	139000	11900	144000	132000
07	118		VEN	R	29.563		SIMI VALLEY, YOSEMITE STREET	11900	144000	132000	11300	138000	126000
07	118		VEN	R	30.521		SIMI VALLEY, KUEHNER DRIVE	11300	136000	126000	11700	121000	119000
07	118		VEN	R	32.427		SIMI VALLEY, ROCKY PEAK ROAD	11700	121000	119000	11600	120000	118000
07	118		VEN	R	33.600		VENTURA/LOS ANGELES COUNTY LINE	11600	120000	118000			
07	118		LA	R	0.000		VENTURA/LOS ANGELES COUNTY LINE				11600	120000	118000
07	118		LA	R	1.799		LOS ANGELES, JCT. RTE. 27	11600	120000	118000	13400	139000	137000
07	118		LA	R	2.680		LOS ANGELES, DE SOTO AVENUE	13400	139000	137000	15100	166000	163000
07	118		LA	R	3.864		LOS ANGELES, PORTER RANCH DR/WN NETKA AVE	15100	166000	163000	15300	168000	165000
07	118		LA	R	4.639		LOS ANGELES, TAMPA AVENUE	15300	168000	165000	18100	203000	200000
07	118		LA	R	5.804		LOS ANGELES, RESEDA BOULEVARD	18200	203000	200000	20100	228000	224000
07	118		LA	R	6.800		LOS ANGELES, WHITE OAK AVENUE	20100	228000	224000	20100	228000	224000
07	118		LA	R	7.400		LOS ANGELES, BALBOA BOULEVARD	20100	228000	224000	20200	241000	236000
07	118		LA	R	8.343		LOS ANGELES, HAVENHURST AVENUE	20200	241000	236000	20300	258000	252000
07	118		LA	R	9.037		LOS ANGELES, WOODLEY AVENUE	20300	258000	252000	19500	252000	245000
07	118		LA	R	9.805		LOS ANGELES, JCT. RTE. 405	19500	252000	249000	20000	251000	244000
07	118		LA	R	10.997	R	BEGIN RIGHT ALIGN				10000	126000	122000
07	118		LA	R	11.447	R	LOS ANGELES, JCT. RTE. 5	10000	126000	122000	7600	85000	82000
07	118		LA	R	11.822	R	LOS ANGELES, END RIGHT ALIGN	7600	85000	82000			
07	118		LA	R	10.997	L	LOS ANGELES, BEGIN LEFT ALIGN				7600	85000	82000
07	118		LA	R	11.816	L	LOS ANGELES, END LEFT ALIGN	7600	85000	82000			
07	118		LA	R	12.385		LOS ANGELES, SAN FERNANDO ROAD	15100	170000	164000	13300	154000	149000
07	118		LA	R	13.182		LOS ANGELES, GLENOAKS BOULEVARD	13900	154000	149000	10400	119000	115000
07	118		LA	R	14.030		LOS ANGELES, JCT. RTE. 210	10400	119000	115000			
06	119		KER		0.000		TAFT, JCT. RTE. 33				550	5600	5200
06	119		KER		0.340		TAFT, EAST KERN STREET	550	5600	5200	740	7800	7400
06	119		KER		0.830		TAFT, SECOND STREET	670	6500	6100	800	8500	8000
06	119		KER		2.140		HARRISON STREET	540	5900	5400	790	8400	7900
06	119		KER	R	13.290		YUPMAN ROAD	1450	13900	12700	1600	15200	13700
06	119		KER		16.173		JCT. RTE. 43 NORTH	1450	14400	13000	730	7500	6600
06	119		KER		19.773		JCT. RTE. 5	830	7500	6600	920	8200	7200
06	119		KER		25.260		BUENA VISTA ROAD	1400	13200	10900	1100	10600	8700
06	119		KER		26.520		EAST LIMITS OLD RIVER	1100	10600	8700	1100	13100	11300
06	119		KER		30.430		WIBLE ROAD	1250	14600	12600	1450	17500	15600
06	119		KER		31.263		JCT. RTE. 99	1450	17500	15600			
10	120		SJ	R	0.493		MOSSDALE, JCT. RTE. 5				6200	81000	79000
10	120		SJ	R	1.338		YOSEMITE AVENUE UC	6100	81000	79000	4500	68000	66000
10	120		SJ	R	3.333		AIRPORT WAY	5700	86000	84000	5300	73000	71000
10	120		SJ	R	5.310		MANTECA ROAD/MAIN STREET	6100	84000	82000	5100	79000	77000
10	120		SJ	T	6.870		SOUTH JCT. RTE. 99	5000	78000	67000	1650	16500	14100
10	120		SJ		6.197		MANTECA, NORTH JCT. RTE. 99	1650	16500	14100	1650	16500	14100
10	120		SJ		6.830		AUSTIN ROAD	1650	16500	14100	1600	17800	13200

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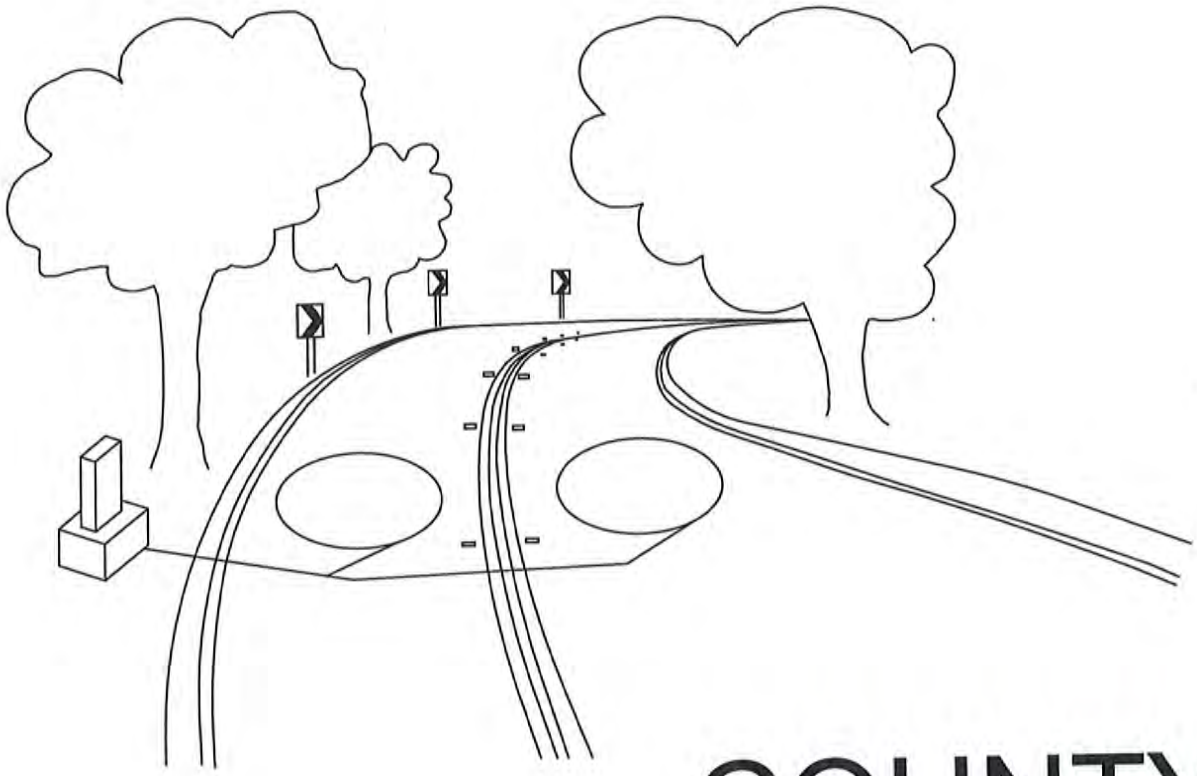
2017 Traffic Volumes : Route 34-43

Jump to Route: | 1 | 2-4 | 5-6 | 7-10 | 11-15 | 16-20 | 22-33 | 34-43 | 44-50 | 51-59 | 60-70 | 71-80 | 82-86 | 87-91 | 92-98 | 99 | 101 | 103-116 | 118-133 | 134-161 | 162-163 | 164-178 | 180-197 | 198-220 | 221-275 | 280-405 | 505-980

Dist	Rte	Rte Suffix	CO	Post Mile Prefix	Post Mile	Post Mile Suffix	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
07	034		VEN		4.295		OXNARD, JCT. RTE. 1				1500	14800	14000
07	034		VEN		6.278		OXNARD, RICE AVENUE	1250	10700	10200	1500	12200	11700
07	034		VEN		8.430		PLEASANT VALLEY ROAD, WEST JUNCTION	1500	12200	11700	1450	11300	9600
07	034		VEN		8.911		WOOD ROAD	1450	11300	9600	1450	10900	9300
07	034		VEN		10.433		LAS POSAS ROAD, WEST JUNCTION	1450	10900	9300	1150	8200	7000
07	034		VEN		12.463		RIGHT ONTO PLEASANT VALLEY ROAD	1150	8200	7000	2400	18900	15100
07	034		VEN		12.780		CAMARILLO, PLEASANT VALLEY RD, LEFT ONTO LEWIS RD	2400	18000	15100	1600	12400	10400
07	034		VEN	R	13.541		CAMARILLO, VENTURA BOULEVARD	1600	12400	10400	2700	21600	18100
07	034		VEN	R	13.603		CAMARILLO, JCT. RTE. 101	2700	21600	18200	2600	21900	18200
07	034		VEN		13.657		CAMARILLO, DAILY DRIVE	2600	21900	18200	2500	22100	18900
07	034		VEN		15.870		CAMARILLO, LAS POSAS ROAD, EAST JUNCTION	1400	13100	11200	860	9300	6900
07	034		VEN		17.663		SOMIS, JCT. RTE. 118	1350	15100	14500			
04	035		SCL	R	0.053		JCT. RTE. 17				200	900	800
04	035		SCL		0.230		SANTA CLARA/ SANTA CRUZ COUNTY LINE	200	900	800			
05	035		SCR		0.230		SANTA CLARA/ SANTA CRUZ COUNTY LINE				200	940	880
05	035		SCR		2.870		BEAR CREEK ROAD	260	1000	850	90	430	330
05	035		SCR		7.680		SANTA CRUZ/ SANTA CLARA COUNTY LINE	60	350	290			
04	035		SCL		7.680		SANTA CRUZ/ SANTA CLARA COUNTY LINE				100	400	300
04	035		SCL		7.700		BLACK ROAD	100	400	300	200	1000	800
04	035		SCL		14.100		JCT. RTE. 9	300	1500	1200	300	1500	1200
04	035		SCL		17.121		SAN MATEO/SANTA CLARA COUNTY LINE	300	1500	1200			
04	035		SM		0.000		SAN MATEO/SANTA CLARA COUNTY LINE				300	1500	1200
04	035		SM		3.213		ALPINE ROAD	300	1500	1200	300	1500	1200
04	035		SM		10.518		WOODSIDE, JCT. RTE. 84	700	2600	2300	200	1500	1400
04	035		SM		16.320		KINGS MOUNTAIN ROAD	200	1600	1500	300	1500	1400
04	035		SM	L	21.720		JCT. RTE. 92	400	2700	2500	500	3600	3400
04	035		SM	R	23.037		JCT. RTE. 280	500	3600	3400	2100	18000	17000
04	035		SM		24.349		SAN BRUNO, SAN BRUNO AVENUE	2100	18000	17000	2200	18000	16000
04	035		SM		24.652		SAN BRUNO, SNEATH AVENUE	2600	20800	19900	2500	23000	20000
04	035		SM		26.234		PACIFICA, SHARP PARK ROAD	3000	24000	23500	2700	23000	22000
04	035		SM		26.860		PACIFICA, MANOR DRIVE	2500	20200	19100	3300	28000	24000
04	035		SM	R	28.687		DALY CITY, JCT. RTE. 1	4400	35000	33600	3300	28000	26000
04	035		SM		29.700		DALY CITY, WESTMOOR AVENUE	4300	41000	38000	3500	30000	28000
04	035		SM		30.270		DALY CITY, WESTRIDGE AVENUE	3200	33000	30000	3700	31000	30000
04	035		SM		30.834		JOHN DALY BOULEVARD	3350	34000	31000	3700	31000	29000
04	035		SM		31.537		SAN MATEO/SAN FRANCISCO COUNTY LINE	3700	33000	32000			
04	035		SF		0.000		SAN MATEO/SAN FRANCISCO COUNTY LINE				3300	31000	27900
04	035		SF		0.600		SAN FRANCISCO, JOHN MUIR DRIVE	3300	31000	27900	3500	33000	30000
04	035		SF		1.830		SAN FRANCISCO, SLOAT BOULEVARD	3100	28500	25800	3100	28500	25600
04	035		SF		2.122		SAN FRANCISCO, SUNSET BOULEVARD	3000	28500	25600	3100	30000	26800
04	035		SF		3.164		SAN FRANCISCO, JCT. RTE. 1	3100	29000	26000			
01	036		HUM		0.000		ALTON, JCT. RTE. 101				540	5700	5200
01	036		HUM		0.298		EAST LIMITS ALTON	540	5500	5300	510	5600	4900
01	036		HUM		2.811		HYDESVILLE, ROHNERVILLE ROAD	720	5800	4600	530	5800	5300
01	036		HUM		3.270		EAST LIMITS HYDESVILLE	700	5700	5200	700	5900	5200
01	036		HUM		7.540		CARLOTTA, EAST	320	3300	2600	320	3300	2600
01	036		HUM	R	23.709		WEST LIMITS BRIDGEVILLE	190	2700	2300	180	2500	2000
01	036		HUM	R	23.916		BRIDGEVILLE, ALDERPOINT ROAD	180	2300	2000	100	2200	1900
01	036		HUM		43.955		EAST LIMITS COBB	140	3000	1700	150	3000	1700
01	036		HUM		45.681		HUMBOLDT/TRINITY COUNTY LINE	140	1900	1600			
02	036		TRI		0.000		HUMBOLDT/TRINITY COUNTY LINE				150	1450	1250
02	036		TRI	R	3.324		LOWER MAD RIV RD 501 RT	150	1450	1250	90	930	820

T-5

2018
TRAFFIC VOLUMES
OF VENTURA COUNTY ROADWAYS



COUNTY OF VENTURA

PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT
VENTURA, CALIFORNIA

T-6

2018

TRAFFIC VOLUMES

ON

VENTURA COUNTY ROADWAYS

Prepared By
Transportation Department
Public Works Agency
County of Ventura
800 S. Victoria Avenue
Ventura, California 93009-1620

PREFACE

Traffic Volumes

This report lists vehicle traffic volumes obtained by the Ventura County Transportation Department for various roadway locations within the unincorporated area of Ventura County. The Vehicles Per Day (VPD), the morning peak hour volume, and the evening peak hour volume are listed for each location counted. Traffic counts from the four previous years are also shown. All traffic volume figures listed reflect combined totals for both directions of travel.

Vehicles Per Day (VPD)

Vehicles Per Day in this report is defined as the total traffic counted on an average weekday. The VPD volume is rounded to the nearest one hundred vehicles. A countywide program of regular and systematic traffic count sampling is conducted through the use of permanent count stations using loop detection and mechanical counting devices moved from location to location. The traffic counts are useful for presenting a countywide picture of traffic flow, evaluating traffic trends, computing accident rates, roadway planning, designing highways and other traffic oriented purposes.

Hourly AM/PM Peak Hour Traffic

Hourly AM/PM Peak is defined as the total traffic count during the highest volume hour in the morning/afternoon on an average weekday. The volume is then rounded to the nearest ten vehicles. This data is useful for evaluating highway capacity and other traffic operational studies.

Average Annual Growth (AAG)

Average annual growth shows short-term grown pattern from the previous five years.

Special Counts (Appendix A)

Vehicle traffic volumes showing the VPD, AM and PM Peak, obtained during studies on non-master count roadways, are compiled in Appendix A at the end of this document. The duration of these counts vary as indicated. These locations are typically off the arterial road system. Special counts can be useful for general information, road maintenance planning and neighborhood traffic studies.

Legend

e/o	:	East of
n/o	:	North of
s/o	:	South of
w/o	:	West of

LOCATION	2014 ADT	2015 ADT	2016 ADT	2017 ADT	2018 ADT	2018 HOURLY PEAK AM PEAK	2018 HOURLY PEAK PM PEAK	AAG
AGGEN RD								
n/o L.A. Ave (SR118)	700	600	400	600	550	50	60	-4.82%
BALCOM CANYON RD								
s/o South Mountain Rd	1700	2000	2200	2300	3000	320	430	11.36%
n/o L.A. Ave (SR118)	2400	2800	2600	2900	3000	220	240	4.46%
BARDSDALE AVE								
e/o Sespe St	1400	1500	1500	1700	1600	200	210	2.67%
BEARDSLEY RD								
n/o Central Ave	2600	2500	2400	2300	2500	190	170	-0.78%
BENNETT RD								
n/o Tapo Canyon Rd	1200	1100	1100	900	900	90	10	-5.75%
BOX CANYON RD								
s/o Santa Susana Pass Rd	4000	4000	4300	4600	4700	640	500	3.23%
BRADLEY RD								
n/o L.A. Ave (SR118)	2300	2500	2500	2700	3100	220	290	5.97%
BRIGGS RD								
s/o Telegraph Rd	3300	3600	3400	3700	3700	330	360	2.29%
n/o Telegraph Rd	1100	1300	1400	1500	1400	200	160	4.82%
BRISTOL RD								
w/o Montgomery Ave	9900	10300	10300	1100	10800	940	1000	1.74%
BROADWAY								
w/o Grimes Cyn Rd (SR23)	2400	2600	2600	2700	2300	270	300	-0.85%
BURNHAM RD								
s/o Baldwin Rd (SR150)	2300	2200	2400	2300	2600	240	300	2.45%
e/o Santa Ana Rd	2100	1900	2000	1900	2100	200	290	0.00%
CALLE YUCCA								
n/o Camino Manzanas	1700	1800	1600	1600	1800	150	160	1.14%
CAMINO DOS RIOS								
w/o Lynn Rd	3400	3100	3100	3300	3300	350	270	-0.60%
CANADA LARGA RD								
e/o Ventura Ave	2400	2700	2600	2400	2000	200	180	-3.65%
CARNE RD								
n/o Ojai Ave (SR150)	800	800	800	900	700	120	90	-2.67%

LOCATION	2014 ADT	2015 ADT	2016 ADT	2017 ADT	2018 ADT	2018 HOURLY PEAK AM PEAK	2018 HOURLY PEAK PM PEAK	AAG
CASITAS VISTA RD								
w/o Ojai Fwy (SR33)	2400	2500	2500	2400	2600	210	240	1.60%
CAWELTI RD								
w/o Lewis Rd	1700	1900	1800	2100	2000	200	280	3.25%
CENTER SCHOOL RD								
s/o L.A. Ave (SR118)	1700	1800	1700	1900	1900	190	180	2.22%
CENTER ST (Piru)								
w/o Telegraph Rd (SR126)	900	900	800	900	900	80	100	0.00%
CENTRAL AVE								
w/o Ventura Fwy (US101)	13800	14400	14200	13400	17200	1710	1350	4.40%
w/o Santa Clara Ave	8700	9300	9000	9100	8800	1060	1050	0.23%
e/o Vineyard Ave (SR232)	8700	9400	9800	10600	10700	1450	1100	4.14%
CHANNEL ISLANDS BLVD								
w/o Rice Ave	10700	1100	10800	10800	10900	920	1160	0.37%
CREEK RD								
e/o Country Club Dr	2500	2600	2700	2900	3000	260	290	3.65%
e/o Ventura Ave (SR33)	2800	3000	3100	3300	3300	270	330	3.29%
DEER CREEK RD								
n/o Pacific Coast Hwy (SR1)	300	300	300	300	300	40	30	0.00%
DEERHILL RD								
n/o Kanan Rd	5500	5700	5500	5500	5700	660	600	0.71%
DEL NORTE RD								
s/o Rancho Dr	400	400	300	300	300	30	40	-5.75%
DONLON RD								
n/o L.A. Ave (SR118)	2100	1700	1800	2000	1900	170	160	-2.00%
DORIS AVE								
e/o Victoria Ave	4000	4300	4200	4200	4400	430	410	1.91%
EL ROBLAR DR								
w/o Maricopa Hwy (SR33)	7800	7900	8000	7700	7800	790	790	0.00%
ETTING RD								
e/o Dodge Rd	2600	2700	2600	2600	2100	280	240	-4.27%
FAIRVIEW RD								
e/o Maricopa Hwy (SR33)	800	800	900	900	900	100	80	2.36%

LOCATION	2014 ADT	2015 ADT	2016 ADT	2017 ADT	2018 ADT	2018 HOURLY PEAK AM PEAK	2018 HOURLY PEAK PM PEAK	AAG
FAIRWAY DR								
n/o Valley Vista Dr	3000	3200	3100	3100	3100	250	280	0.66%
W FIFTH ST								
e/o Harbor Blvd	5100	5100	4900	5400	5400	440	470	1.14%
FOOTHILL RD								
w/o Peck Rd	1600	1600	1600	1900	2400	240	220	8.11%
w/o Briggs Rd	1800	1900	2000	2200	2000	300	330	2.11%
e/o Wells Rd	2300	2400	2500	2800	2800	360	400	3.93%
e/o Saticoy Ave	3800	4100	4000	4100	3900	430	410	0.52%
GONZALES RD								
e/o Harbor Blvd	3900	4100	4000	4300	4000	330	390	0.51%
GRAND AVE								
e/o Fordyce Rd	2600	2000	2200	2000	2000	260	230	-5.25%
w/o Fordyce Rd	2100	2000	2200	2000	2100	270	240	0.00%
GRIMES CANYON RD								
n/o L.A. Ave (SR118)	2600	2800	3000	3300	3500	340	360	5.95%
GUIBERSON RD								
e/o Chambersburg Rd (SR23)	900	900	900	900	1000	90	120	2.11%
HARBOR BLVD								
n/o Gonzales Rd	18800	19900	19800	22000	21700	1860	2180	2.87%
s/o Gonzales Rd	17600	---	17700	19500	20200	1700	2030	3.44%
HITCH BLVD								
s/o L.A. Ave (SR118)	2400	2500	2700	2500	2600	200	240	1.60%
HOWE RD								
e/o Torrey Rd	500	500	800	800	800	80	90	9.40%
HUENEME RD								
e/o Las Posas Rd	10300	11200	11200	12200	12800	1320	1370	4.35%
e/o Nauman Rd	10100	10500	10800	11100	11300	930	1220	2.25%
e/o Wood Rd	9900	10400	10500	11200	10300	1080	920	0.79%
w/o Olds Rd	12300	12300	12600	14800	15500	1360	1590	4.62%
KANAN RD								
e/o Lindero Canyon Rd	14900	14100	14300	13800	13600	1830	1520	-1.83%
e/o Hollytree Dr / Oak Hills Dr	14700	13600	13600	12700	---	---	---	-3.66%
s/o Tamarind St	21100	21200	21200	18900	20100	1820	1840	-0.97%

LOCATION	2014 ADT	2015 ADT	2016 ADT	2017 ADT	2018 ADT	2018 HOURLY PEAK AM PEAK	2018 HOURLY PEAK PM PEAK	AAG
LA LUNA AVE								
s/o Lomita Ave	4000	4100	4100	4300	4400	400	350	1.91%
LA VISTA AVE								
n/o L.A. Ave (SR118)	1100	1000	800	1000	800	110	100	-6.37%
LAGUNA RD								
e/o Pleasant Valley Rd	1800	2200	2000	1900	1900	340	190	1.08%
n/o Hueneme Rd	1900	2100	2000	2200	2400	200	300	4.67%
LAS POSAS RD								
n/o E Fifth St (SR34)	8400	8400	8100	9100	9600	640	940	2.67%
s/o E Fifth St (SR34)	8800	8900	9200	10100	10100	720	1420	2.76%
s/o Hueneme Rd	6100	6100	6200	6800	6800	560	920	2.17%
E LAS POSAS RD								
n/o Santa Rosa Rd	2700	2600	2700	2900	3200	260	260	3.40%
LEWIS RD								
s/o Pleasant Valley Rd	14900	15500	16400	18700	19700	1830	2080	5.59%
n/o Potrero Rd	8800	9500	9600	10500	11600	1020	1270	5.53%
LOCKWOOD VALLEY RD								
w/o Kern County Line	800	800	900	900	900	80	90	2.36%
e/o Maricopa Hwy (SR33)	200	400	100	200	100	10	20	-13.86%
LOMITA AVE								
e/o Tico Rd	4100	4100	4100	4300	4300	490	380	0.95%
MAIN ST (Piru)								
n/o Telegraph Rd (SR126)	4200	4200	4200	4800	3800	310	350	-2.00%
McANDREW RD								
n/o Reeves Rd	500	500	500	400	500	50	50	0.00%
MOORPARK RD								
n/o Santa Rosa Rd	16200	17100	17200	17800	20700	2490	1780	4.90%
OLD TELEGRAPH RD								
w/o Grand Ave	3600	4200	4500	4400	4100	370	410	2.60%
OLDS RD								
n/o Hueneme Rd	1600	1800	1800	1800	1900	210	250	3.44%
OLIVAS PARK DR								
w/o Victoria Ave	11500	12000	11800	12300	12400	820	1290	1.51%

LOCATION	2014 ADT	2015 ADT	2016 ADT	2017 ADT	2018 ADT	2018 HOURLY PEAK AM PEAK	2018 HOURLY PEAK PM PEAK	AAG
PANAMA DR								
s/o Lake Shore Dr	500	400	400	400	300	40	30	-10.22%
PASADENA AVE								
e/o Sespe St	200	300	300	400	400	30	60	13.86%
PATTERSON RD								
s/o Doris Ave	1000	1000	1100	1000	1050	230	160	0.98%
PIRU CANYON RD								
n/o Orchard St	500	500	500	700	600	73	60	3.65%
PLEASANT VALLEY RD								
s/o E Fifth St (SR34)	15600	15900	16300	17000	16200	1550	1500	0.75%
w/o Las Posas Rd	14500	14400	14700	16100	15000	1300	1440	0.68%
POTRERO RD								
e/o Lake Sherwood Dr (E)	6400	8600	9000	8700	8600	720	680	5.91%
w/o Stafford Rd	3200	3400	3500	3600	3500	320	300	1.79%
w/o Hidden Valley Rd	1900	2300	2200	2300	2300	210	310	3.82%
Milepost 2.75	3200	3400	3400	3700	3800	600	520	3.44%
e/o Lewis Rd	5000	4800	4800	5000	4700	650	560	-1.24%
PRICE RD								
n/o L.A. Ave (SR118)	400	600	400	500	400	50	40	0.00%
RICE AVE								
s/o E Fifth St (SR34)	31300	31700	32400	37200	36700	2500	2700	3.18%
n/o Channel Islands Blvd	27100	26200	26700	31200	30000	2300	3000	2.03%
n/o Hueneme Rd	3600	3600	3800	5100	---	---	---	8.71%
RICE RD (Meiners Oaks)								
s/o Lomita Ave	2000	2100	2100	2100	2000	180	190	0.00%
RIVERSIDE AVE								
w/o Chambersburg Rd (SR23)	700	700	700	700	900	60	150	5.03%
ROSE AVE								
s/o L.A. Ave (SR118)	7700	8300	8600	9800	9100	640	800	3.34%
s/o Central Ave	11200	10500	11100	12400	11100	805	1380	-0.18%
n/o Collins St	17600	18700	18300	16900	18500	1880	1700	1.00%
SANTA ANA BLVD								
e/o Riverside Rd	2300	2200	2400	2400	2400	200	220	0.85%
s/o Baldwin Rd (SR150)	1000	1000	1000	900	700	70	120	-7.13%
s/o Santa Ana Blvd	2000	1900	1900	1800	2100	250	210	0.98%

LOCATION	2014 ADT	2015 ADT	2016 ADT	2017 ADT	2018 ADT	2018 HOURLY PEAK AM PEAK	2018 HOURLY PEAK PM PEAK	AAG
SANTA CLARA AVE								
n/o Friedrich Rd	13100	12900	13200	14600	15100	1500	1480	2.84%
s/o L.A. Ave (SR118)	16100	15400	15700	16600	18500	1850	1440	2.78%
SANTA ROSA RD								
w/o Moorpark Rd	20200	19700	19700	22100	22100	2130	2240	1.80%
w/o E Las Posas Rd	15100	16500	16700	15500	14800	1380	1350	-0.40%
SANTA SUSANA PASS RD								
e/o Katherine Rd	4600	4800	4700	4700	4500	460	510	-0.44%
SESPE ST								
n/o South Mountain Rd	1700	1900	2100	2100	2700	230	330	9.25%
s/o Pasadena Ave	600	600	600	700	700	60	100	3.08%
SOUTH MOUNTAIN RD								
e/o Balcom Canyon Rd	1800	1900	2000	2200	2100	250	270	3.08%
s/o Santa Clara River	---	3900	3900	3700	3800	350	460	-0.65%
STOCKTON RD								
e/o Balcom Canyon Rd	1100	1200	1100	1100	1000	90	80	-1.91%
STURGIS RD								
w/o Pleasant Valley Rd	3400	3800	3700	3900	4500	420	790	5.61%
TAPO CANYON RD								
s/o Bennett Rd	1400	1700	1600	1600	1300	110	130	-1.48%
TELEGRAPH RD								
w/o Briggs Rd	5000	5000	5400	6300	7600	900	1170	8.37%
w/o Hallock Dr	---	---	---	---	---	---	---	---
w/o Olive Rd	5500	5500	5700	6400	7300	780	1160	5.66%
TELEPHONE RD								
n/o Olivas Park Dr	12700	13600	13500	12800	12400	900	1200	-0.48%
TICO RD								
n/o Ventura Ave (SR150)	3100	3100	3000	3200	3000	270	260	-0.66%
TIERRA REJADA RD								
e/o Moorpark Fwy (SR23)	16100	16300	16300	18900	24900	2270	3260	8.72%
TORREY RD								
s/o Telegraph Rd (SR126)	500	500	800	500	750	70	80	8.11%
VALLEY VISTA DR								
s/o Calle Aurora	5400	5600	5300	5500	5500	430	460	0.37%

LOCATION	2014 ADT	2015 ADT	2016 ADT	2017 ADT	2018 ADT	2018 HOURLY PEAK AM PEAK	2018 HOURLY PEAK PM PEAK	AAG
VENTURA AVE								
n/o Canada Larga Rd	800	800	800	900	900	80	90	2.36%
n/o Shell Rd	6000	6000	6100	5900	5500	360	490	-1.74%
VICTORIA AVE								
s/o Olivas Park Dr	44500	44900	42500	43700	44900	3430	3850	0.18%
VILLANOVA RD								
e/o Ventura Ave (SR33)	2200	2400	2500	2500	2600	220	280	3.34%
WALNUT AVE								
n/o L.A. Ave (SR118)	500	400	400	500	400	50	50	-4.46%
WENDY DR								
n/o Gerald Dr	12600	13100	13100	13400	14200	1120	1200	2.39%
WOOD RD								
s/o Hueneme Rd	1900	1900	1700	1700	1400	190	120	-6.11%
s/o E Fifth St (SR34)	1300	1200	1100	1000	1000	140	90	-5.25%
WOOLEY RD								
w/o Rice Ave	9500	9700	9900	9300	10300	840	980	1.62%
WRIGHT RD								
e/o Santa Clara Ave	1400	1400	1300	1300	1200	150	130	-3.08%
YERBA BUENA RD								
n/o Pacific Coast Hwy (SR1)	600	700	700	600	600	40	50	0.00%

2018 SPECIAL COUNTS

Road	Location	2018 ADT	AM PEAK	PM PEAK	DAYS COUNTED
Barranca Rd	1335 ft e/o Palo Verde Ct	196	20	23	1
Camino Concordia	200 ft w/o Camino Portada	870	81	79	1
Happy Camp Rd	1000 ft n/o Broadway	1076	89	100	1
Matilija Rd	3258 N Matilija Rd	196	26	31	1
Medea Creek Lane	600 ft s/o Oak Hills Dr	1329	191	142	1
Santa Clara Ave	MB Ventura Blvd and Eucalyptus Dr	17763	1426	1826	1
Sunnycrest Dr	100 ft e/o Countryside Rd	978	83	90	1
Wheeler Canyon Road	1000 ft n/o Wheeler Canyon Rd	770	36	46	1

2018 APPROACH COUNTS

Road	Location	2018 ADT	AM 3HR PEAK	PM 3HR PEAK	DAYS COUNTED
El Roblar Drive	Poli St at El Roblar Dr - North Bound	167	28	50	1
El Roblar Drive	Poli St at El Roblar Dr - South Bound	132	27	42	1
El Roblar Drive	Alvarado St at El Roblar Dr - North Bound	89	30	17	1
El Roblar Drive	Alvarado St at El Roblar Dr - South Bound	120	27	30	1
El Roblar Drive	Encinal Dr at El Roblar Dr - North Bound	81	21	11	1
El Roblar Drive	Encinal Dr at El Roblar Dr - South Bound	111	27	28	1

INTERSECTION COUNT DATA

Prepared by National Data & Surveying Services

SR-34 & SR-118

Peak Hour Turning Movement Count

ID: 19-05117-001
City: Somis

Day: Tuesday
Date: 03/12/2019

PEAK HOURS

AM: 07:15 AM - 08:15 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

SR-34 SOUTHBOUND

AM	26	131	24	0	90 AM
NOON	0	0	0	0	0 NOON
PM	17	129	26	0	154 PM

SR-118 EASTBOUND

AM	NOON	PM	
546	0	322	⇦
0	0	0	↰ 0
12	0	11	↑ 0
344	0	301	→ 0
177	0	116	↳ 0
AM	NOON	PM	

SR-118 WESTBOUND

PM	NOON	AM	
9	0	19	0 ↰
217	0	431	0 ←
362	0	447	0 ↶
0	0	0	0 ↳
953	0	913	⇨
PM	NOON	AM	

CONTROL

0

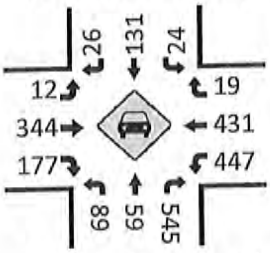
TEV	2304 AM	0 NOON	2037 PM
PHF	0.92		0.84

SR-34 NORTHBOUND

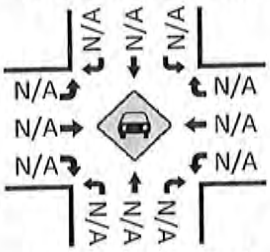
PM	608	1	88	134	626 PM
NOON	0	0	0	0	0 NOON
AM	755	0	89	59	545 AM

SR-34

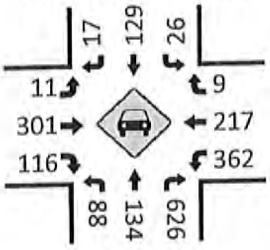
Total Vehicles (AM)



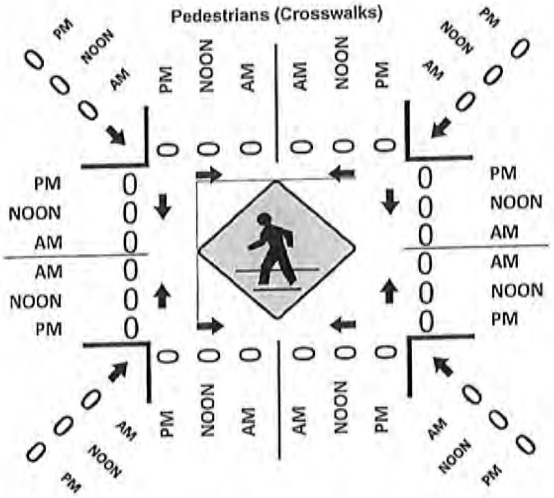
Total Vehicles (Noon)



Total Vehicles (PM)



Pedestrians (Crosswalks)



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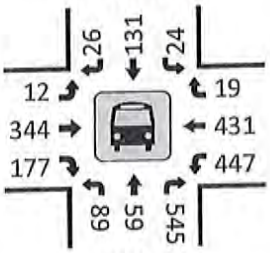

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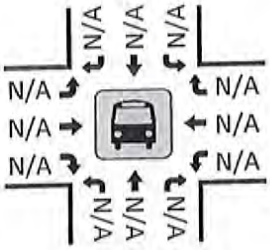
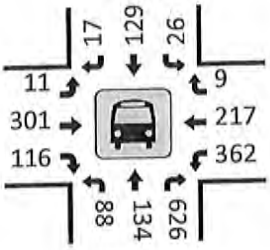


(PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-34 & SR-118
City: Somis
Control:

Project ID: 19-05117-001
Date: 3/12/2019

Total

NS/EW Streets:	SR-34				SR-34				SR-118				SR-118				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	26	34	107	0	8	13	1	0	24	73	31	0	94	110	3	0	524
7:15 AM	12	19	115	0	4	29	9	0	5	98	50	0	104	138	9	0	592
7:30 AM	26	10	127	0	9	35	3	0	0	72	49	0	107	107	5	0	550
7:45 AM	23	10	163	0	7	46	10	0	3	90	46	0	123	106	2	0	629
8:00 AM	28	20	140	0	4	21	4	0	4	84	32	0	113	80	3	0	533
8:15 AM	15	10	151	0	6	13	2	0	4	96	37	0	122	78	3	0	537
8:30 AM	23	5	107	0	5	30	3	0	3	100	34	0	109	96	6	0	521
8:45 AM	15	16	94	0	6	23	0	0	1	104	34	0	107	102	2	0	504
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	168	124	1004	0	49	210	32	0	44	717	313	0	879	817	33	0	4390
APPROACH %'s :	12.96%	9.57%	77.47%	0.00%	16.84%	72.16%	11.00%	0.00%	4.10%	66.76%	29.14%	0.00%	50.84%	47.25%	1.91%	0.00%	
PEAK HR :	**07:15 AM - 08:15 AM**				07:15 AM	38	37	44	07:45 AM								TOTAL
PEAK HR VOL :	89	59	545	0	24	131	26	0	12	344	177	0	447	431	19	0	2304
PEAK HR FACTOR :	0.795	0.738	0.836	0.000	0.667	0.712	0.650	0.000	0.600	0.878	0.885	0.000	0.909	0.781	0.528	0.000	0.916
		0.884				0.718				0.871				0.893			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	1	64	123	3	9	66	0	0	0	50	40	0	68	0	1	0	425
4:15 PM	0	47	125	0	10	79	0	0	3	62	44	0	74	0	1	0	445
4:30 PM	0	60	151	1	12	62	0	0	2	44	31	0	78	0	2	0	443
4:45 PM	0	65	148	3	6	53	0	0	1	35	43	0	78	0	1	0	433
5:00 PM	0	47	135	1	11	39	0	0	4	59	41	0	78	0	1	0	416
5:15 PM	6	56	148	0	9	50	3	0	2	60	26	0	78	1	1	0	440
5:30 PM	38	13	180	0	6	22	9	0	1	67	26	0	106	101	3	0	572
5:45 PM	44	18	163	0	0	18	5	0	4	115	23	0	100	115	4	0	609
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	89	370	1173	8	63	389	17	0	17	492	274	0	660	217	14	0	3783
APPROACH %'s :	5.43%	22.56%	71.52%	0.49%	13.43%	82.94%	3.62%	0.00%	2.17%	62.84%	34.99%	0.00%	74.07%	24.35%	1.57%	0.00%	
PEAK HR :	**05:00 PM - 06:00 PM**				05:00 PM	293	289	296	05:45 PM								TOTAL
PEAK HR VOL :	88	134	626	1	26	129	17	0	11	301	116	0	362	217	9	0	2037
PEAK HR FACTOR :	0.500	0.598	0.869	0.250	0.591	0.645	0.472	0.000	0.688	0.654	0.707	0.000	0.854	0.472	0.563	0.000	0.836
		0.919				0.694				0.754				0.671			

7-18

Prepared by National Data & Surveying Services

Camino Alvarez/High School Dwy & Las Posas Rd

Peak Hour Turning Movement Count

ID: 19-05117-008
City: Somis

Day: Tuesday
Date: 03/12/2019

PEAK HOURS
AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS
AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

Camino Alvarez/High School Dwy — SOUTHBOUND

AM	17	44	58	0	146	AM
NOON	0	0	0	0	0	NOON
PM	2	10	27	0	18	PM

Las Posas Rd — EASTBOUND

AM	NOON	PM	
876	0	1054	⇦
0	0	0	↰ 0
31	0	6	↱ 0
835	0	911	→ 0
92	0	79	↳ 0

CONTROL

0

TEV	2112 AM	0 NOON	2139 PM
PHF	0.87		0.97

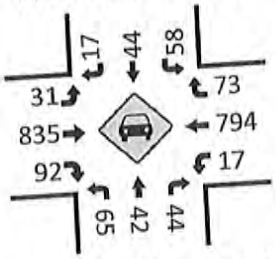
Las Posas Rd — WESTBOUND

PM	NOON	AM	
9	0	73	0 ↰
1011	0	794	0 ←
5	0	17	0 ↶
0	0	0	0 ↳
973	0	937	⇨

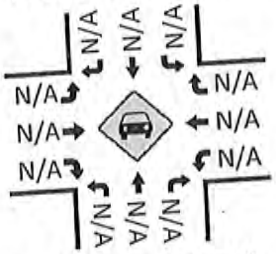
Camino Alvarez/High School Dwy — NORTHBOUND

PM	94	0	41	3	35	PM
NOON	0	0	0	0	0	NOON
AM	153	0	65	42	44	AM

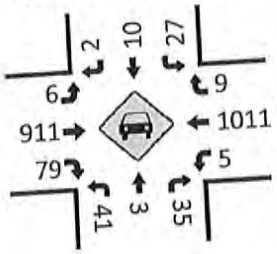
Total Vehicles (AM)



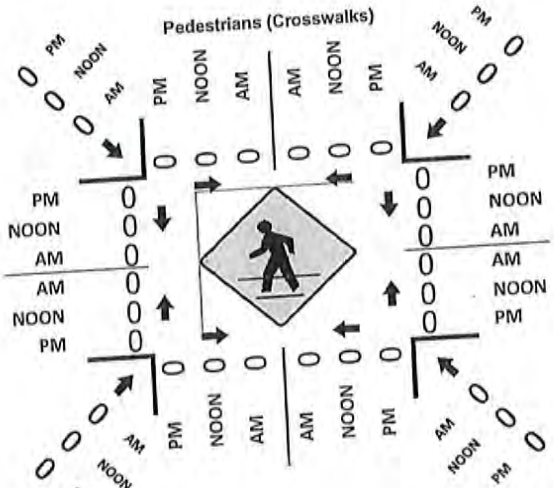
Total Vehicles (Noon)



Total Vehicles (PM)

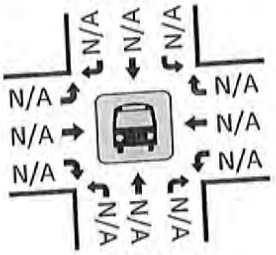


Pedestrians (Crosswalks)

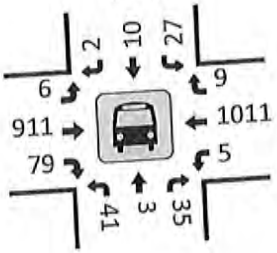


(AM)

(NOON)



(PM)



T-19

National Data & Surveying Services

Intersection Turning Movement Count

Location: Camino Alvarez/High School Dwy & Las Posas Rd
City: Somis
Control:

Project ID: 19-05117-008
Date: 3/12/2019

Total

NS/EW Streets:	Camino Alvarez/High School Dwy				Camino Alvarez/High School Dwy				Las Posas Rd				Las Posas Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	9	5	0	4	0	1	0	2	105	13	0	2	52	7	0	205
7:15 AM	10	21	12	0	13	16	0	0	7	133	22	0	2	89	27	0	352
7:30 AM	20	32	12	0	32	28	12	0	24	203	32	0	7	147	59	0	608
7:45 AM	19	6	12	0	21	14	5	0	4	233	24	0	3	219	9	0	569
8:00 AM	10	2	12	0	1	0	0	0	1	221	18	0	2	191	1	0	459
8:15 AM	16	2	8	0	4	2	0	0	2	178	18	0	5	237	4	0	476
8:30 AM	16	4	12	0	3	2	0	0	0	127	24	0	4	169	3	0	364
8:45 AM	12	9	11	0	5	4	1	0	0	135	24	0	1	175	7	0	384
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	108	85	84	0	83	66	19	0	40	1335	175	0	26	1279	117	0	3417
APPROACH %'s :	38.99%	30.69%	30.32%	0.00%	49.40%	39.29%	11.31%	0.00%	2.58%	86.13%	11.29%	0.00%	1.83%	89.94%	8.23%	0.00%	
PEAK HR :	**07:30 AM - 08:30 AM**				07:30 AM	39	37	44	07:30 AM								TOTAL
PEAK HR VOL :	65	42	44	0	58	44	17	0	31	835	92	0	17	794	73	0	2112
PEAK HR FACTOR :	0.813	0.328	0.917	0.000	0.453	0.393	0.354	0.000	0.323	0.896	0.719	0.000	0.607	0.838	0.309	0.000	0.868
		0.590				0.413				0.918				0.898			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	13	1	8	0	13	11	8	0	3	192	15	0	1	268	3	0	536
4:15 PM	11	1	9	0	2	3	2	0	0	176	9	0	1	244	5	0	463
4:30 PM	9	0	10	0	4	4	0	0	2	225	16	0	2	258	4	0	534
4:45 PM	11	1	8	0	9	6	0	0	2	224	22	0	0	250	0	0	533
5:00 PM	12	0	7	0	7	0	0	0	1	245	21	0	0	257	4	0	554
5:15 PM	9	2	10	0	7	0	2	0	1	217	20	0	3	246	1	0	518
5:30 PM	5	3	9	0	11	4	2	0	1	187	11	0	0	256	4	0	493
5:45 PM	12	1	11	0	13	5	4	0	4	192	16	0	2	209	3	0	472
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	82	9	72	0	66	33	18	0	14	1658	130	0	9	1988	24	0	4103
APPROACH %'s :	50.31%	5.52%	44.17%	0.00%	56.41%	28.21%	15.38%	0.00%	0.78%	92.01%	7.21%	0.00%	0.45%	98.37%	1.19%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**				04:30 PM	291	289	296	05:00 PM								TOTAL
PEAK HR VOL :	41	3	35	0	27	10	2	0	6	911	79	0	5	1011	9	0	2139
PEAK HR FACTOR :	0.854	0.375	0.875	0.000	0.750	0.417	0.250	0.000	0.750	0.930	0.898	0.000	0.417	0.980	0.563	0.000	0.965
		0.940				0.650				0.933				0.971			

Prepared by National Data & Surveying Services

SR-34 & Upland Rd

Peak Hour Turning Movement Count

ID: 19-05117-002
City: Somis

Day: Tuesday
Date: 03/12/2019

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

SR-34 SOUTHBOUND

AM	218	523	176	0	824	AM
NOON	0	0	0	0	0	NOON
PM	266	446	80	0	1033	PM

EASTBOUND (Upland Rd)

AM	NOON	PM	
928	0	1033	⇦
0	0	0	↶ 0
293	0	271	↱ 0
618	0	646	→ 0
22	0	53	↳ 0
AM	NOON	PM	

WESTBOUND (Upland Rd)

PM	NOON	AM	
256	0	159	0 ↰
714	0	653	0 ←
123	0	160	0 ↶
0	0	0	0 ↳
812	0	897	⇨
PM	NOON	AM	

CONTROL

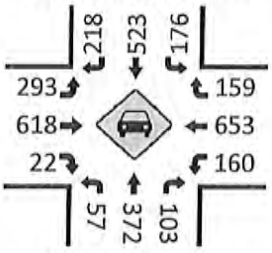
0

TEV	3354 AM	0 NOON	3500 PM
PHF	0.95		0.95

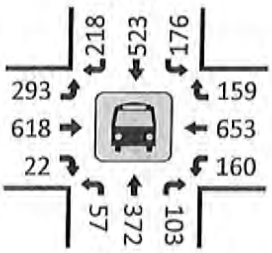
NORTHBOUND SR-34

PM	622	0	53	506	86	PM
NOON	0	0	0	0	0	NOON
AM	705	0	57	372	103	AM

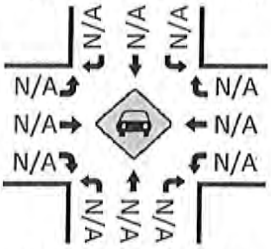
Total Vehicles (AM)



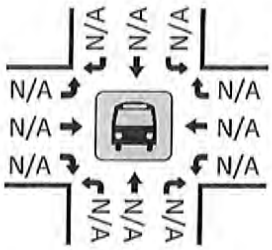
(AM)



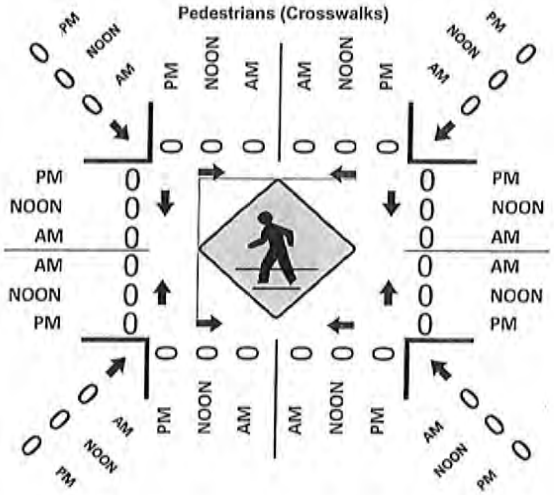
Total Vehicles (Noon)



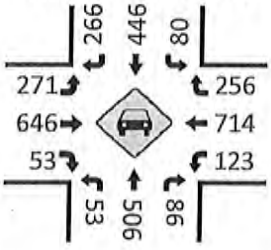
(NOON)



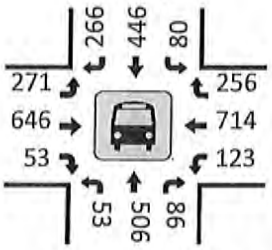
Pedestrians (Crosswalks)



Total Vehicles (PM)



(PM)



T-21

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-34 & Upland Rd
City: Somis
Control:

Project ID: 19-05117-002
Date: 3/12/2019

Total

NS/EW Streets:	SR-34				SR-34				Upland Rd				Upland Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	8	107	10	0	26	104	16	0	47	60	5	0	20	45	23	0	471
7:15 AM	11	76	17	0	44	122	40	0	53	87	3	0	17	87	14	0	571
7:30 AM	14	100	22	0	66	132	47	0	81	149	5	0	42	187	41	0	886
7:45 AM	14	80	30	0	41	144	60	0	79	189	4	0	34	152	44	0	871
8:00 AM	15	113	33	0	46	130	55	0	73	161	5	0	37	154	39	0	861
8:15 AM	14	79	18	0	23	117	56	0	60	119	8	0	47	160	35	0	736
8:30 AM	10	65	18	0	33	115	46	0	52	84	6	0	26	112	19	0	586
8:45 AM	20	55	15	0	22	123	55	0	52	99	5	0	24	114	22	0	606
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	106	675	163	0	301	987	375	0	497	948	41	0	247	1011	237	0	5588
APPROACH %'s :	11.23%	71.50%	17.27%	0.00%	18.10%	59.35%	22.55%	0.00%	33.45%	63.80%	2.76%	0.00%	16.52%	67.63%	15.85%	0.00%	
PEAK HR :	**07:30 AM - 08:30 AM**				07:30 AM	39	37	44	07:30 AM								TOTAL
PEAK HR VOL :	57	372	103	0	176	523	218	0	293	618	22	0	160	653	159	0	3354
PEAK HR FACTOR :	0.950	0.823	0.780	0.000	0.667	0.908	0.908	0.000	0.904	0.817	0.688	0.000	0.851	0.873	0.903	0.000	0.946
		0.826				0.936				0.858				0.900			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	18	125	19	0	13	136	73	0	58	132	11	0	23	158	66	0	832
4:15 PM	25	112	24	0	18	135	51	0	55	127	18	0	23	194	53	0	835
4:30 PM	16	130	23	0	26	130	69	0	69	138	21	0	36	160	55	0	873
4:45 PM	14	121	27	0	23	104	75	0	55	183	10	0	24	179	51	0	866
5:00 PM	10	124	15	0	12	114	73	0	80	177	11	0	36	181	88	0	921
5:15 PM	13	131	21	0	19	98	49	0	67	148	11	0	27	194	62	0	840
5:30 PM	10	122	14	0	12	116	59	0	65	133	8	0	29	176	35	0	779
5:45 PM	16	132	20	0	19	86	50	0	60	141	10	0	22	150	40	0	746
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	122	997	163	0	142	919	499	0	509	1179	100	0	220	1392	450	0	6692
APPROACH %'s :	9.52%	77.77%	12.71%	0.00%	9.10%	58.91%	31.99%	0.00%	28.47%	65.94%	5.59%	0.00%	10.67%	67.51%	21.82%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**				04:30 PM	291	289	296	05:00 PM								TOTAL
PEAK HR VOL :	53	506	86	0	80	446	266	0	271	646	53	0	123	714	256	0	3500
PEAK HR FACTOR :	0.828	0.966	0.796	0.000	0.769	0.858	0.887	0.000	0.847	0.883	0.631	0.000	0.854	0.920	0.727	0.000	0.950
		0.954				0.880				0.905				0.896			

Prepared by National Data & Surveying Services

Flynn Rd & Upland Rd

Peak Hour Turning Movement Count

ID: 19-05117-009
City: Somis

Day: Tuesday
Date: 03/12/2019

PEAK HOURS: 07:30 AM - 08:30 AM; NONE; 04:30 PM - 05:30 PM

COUNT PERIODS: 07:00 AM - 09:00 AM; NONE; 04:00 PM - 06:00 PM

SOUTHBOUND (Flynn Rd)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Upland Rd)

AM	NOON	PM	
954	0	1074	⇦
0	0	0	↶ 0
0	0	0	↷ 0
638	0	633	→ 0
259	0	145	↴ 0
AM	NOON	PM	

WESTBOUND (Upland Rd)

PM	NOON	AM	
0	0	0	↶ 0
722	0	674	← 0
113	0	236	↶ 0
1	0	1	↶ 0
843	0	895	⇨
PM	NOON	AM	

CONTROL

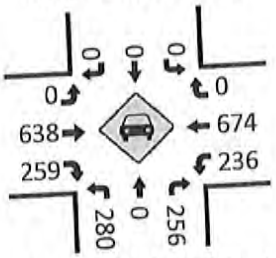
0

	AM	NOON	PM
TEV	2344	0	2175
PHF	0.87	NOON	0.92

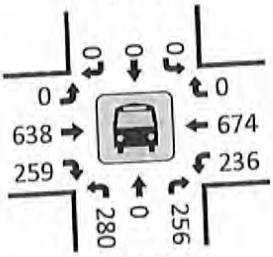
NORTHBOUND (Flynn Rd)

PM	258	0	352	0	209	PM
NOON	0	0	0	0	0	NOON
AM	495	0	280	0	256	AM

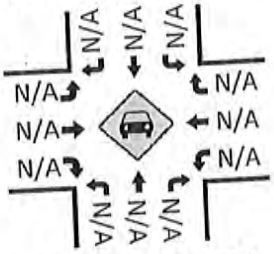
Total Vehicles (AM)



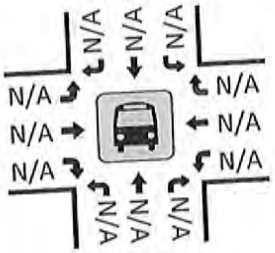
(AM)



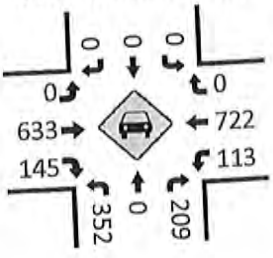
Total Vehicles (Noon)



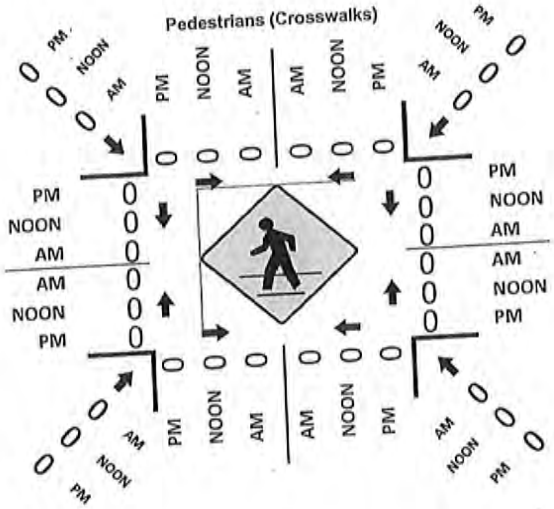
(NOON)



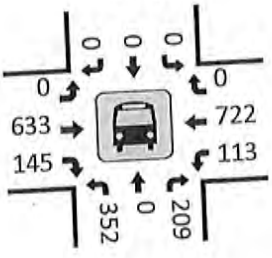
Total Vehicles (PM)



Pedestrians (Crosswalks)



(PM)



T-23

National Data & Surveying Services

Intersection Turning Movement Count

Location: Flynn Rd & Upland Rd
City: Somis
Control:

Project ID: 19-05117-009
Date: 3/12/2019

Total

NS/EW Streets:	Flynn Rd				Flynn Rd				Upland Rd				Upland Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	22	0	25	0	0	0	0	0	0	67	30	0	38	63	0	0	245
7:15 AM	45	0	20	0	0	0	0	0	0	111	54	0	43	93	0	0	366
7:30 AM	109	0	24	0	0	0	0	0	0	167	86	0	42	176	0	0	604
7:45 AM	61	0	69	0	0	0	0	0	0	159	78	0	65	155	0	1	588
8:00 AM	67	0	110	0	0	0	0	0	0	187	63	0	66	180	0	0	673
8:15 AM	43	0	53	0	0	0	0	0	0	125	32	0	63	163	0	0	479
8:30 AM	31	0	19	0	0	0	0	0	0	109	30	0	27	125	0	1	342
8:45 AM	40	0	14	0	0	0	0	0	0	91	40	0	21	121	0	0	327
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	418	0	334	0	0	0	0	0	0	1016	413	0	365	1076	0	2	3624
APPROACH %'s :	55.59%	0.00%	44.41%	0.00%					0.00%	71.10%	28.90%	0.00%	25.29%	74.57%	0.00%	0.14%	
PEAK HR :	**07:30 AM - 08:30 AM**				07:30 AM	39	37	44	08:00 AM								TOTAL
PEAK HR VOL :	280	0	256	0	0	0	0	0	0	638	259	0	236	674	0	1	2344
PEAK HR FACTOR :	0.642	0.000	0.582	0.000	0.000	0.000	0.000	0.000	0.000	0.853	0.753	0.000	0.894	0.936	0.000	0.250	0.871
	0.757								0.886				0.926				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	72	0	64	0	0	0	0	0	0	142	33	0	29	196	0	0	536
4:15 PM	69	0	48	0	0	0	0	0	0	133	26	0	34	180	0	0	490
4:30 PM	84	0	52	0	0	0	0	0	0	160	27	0	26	166	0	0	515
4:45 PM	78	0	42	0	0	0	0	0	0	156	55	0	29	175	0	0	535
5:00 PM	106	0	55	0	0	0	0	0	0	167	32	0	38	195	0	1	594
5:15 PM	84	0	60	0	0	0	0	0	0	150	31	0	20	186	0	0	531
5:30 PM	65	0	52	0	0	0	0	0	0	128	36	0	19	174	0	0	474
5:45 PM	55	0	45	0	0	0	0	0	0	143	33	0	24	153	0	0	453
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	613	0	418	0	0	0	0	0	0	1179	273	0	219	1425	0	1	4128
APPROACH %'s :	59.46%	0.00%	40.54%	0.00%					0.00%	81.20%	18.80%	0.00%	13.31%	86.63%	0.00%	0.06%	
PEAK HR :	**04:30 PM - 05:30 PM**				04:30 PM	291	289	296	05:00 PM								TOTAL
PEAK HR VOL :	352	0	209	0	0	0	0	0	0	633	145	0	113	722	0	1	2175
PEAK HR FACTOR :	0.830	0.000	0.871	0.000	0.000	0.000	0.000	0.000	0.000	0.948	0.659	0.000	0.743	0.926	0.000	0.250	0.915
	0.871								0.922				0.893				

T-24

Prepared by National Data & Surveying Services

Lewis Rd & Adolfo Rd

Peak Hour Turning Movement Count

ID: 19-05117-003
City: Somis

Day: Tuesday
Date: 03/12/2019

PEAK HOURS: 07:15 AM - 08:15 AM; NONE; 04:15 PM - 05:15 PM

COUNT PERIODS: 07:00 AM - 09:00 AM; NONE; 04:00 PM - 06:00 PM

Lewis Rd — SOUTHBOUND

AM	22	636	280	0	629 AM
NOON	0	0	0	0	0 NOON
PM	27	656	97	0	788 PM

Adolfo Rd — EASTBOUND

AM	NOON	PM	
333	0	721	⇦
0	0	0	0
49	0	39	0
573	0	390	0
55	0	36	0
AM	NOON	PM	

Adolfo Rd — WESTBOUND

PM	NOON	AM	
183	0	95	0
637	0	275	0
243	0	159	0
0	0	0	0
721	0	1114	⇨
PM	NOON	AM	

CONTROL

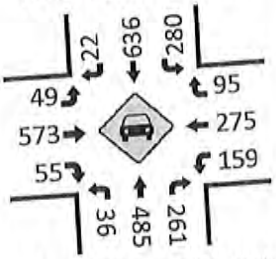
0

TEV	2926 AM	0 NOON	3165 PM
PHF	0.89		0.95

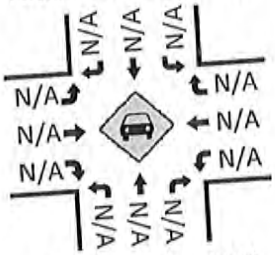
Lewis Rd — NORTHBOUND

PM	935	0	57	566	234 PM
NOON	0	0	0	0	0 NOON
AM	850	0	36	485	261 AM

Total Vehicles (AM)

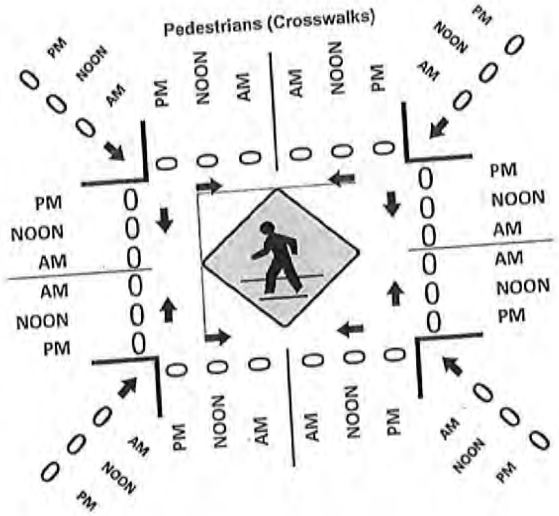


Total Vehicles (Noon)

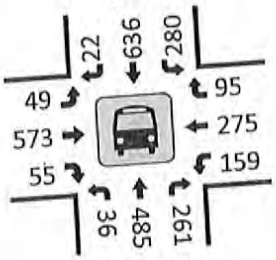


Total Vehicles (PM)

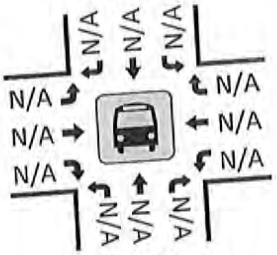
Pedestrians (Crosswalks)



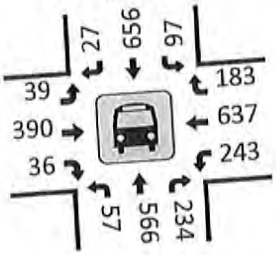
(AM)



(NOON)



(PM)



T-25

National Data & Surveying Services

Intersection Turning Movement Count

Location: Lewis Rd & Adolfo Rd
City: Somis
Control:

Project ID: 19-05117-003
Date: 3/12/2019

Total

NS/EW Streets:	Lewis Rd				Lewis Rd				Adolfo Rd				Adolfo Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	5	128	61	0	33	134	1	0	5	52	8	0	18	25	24	0	494
7:15 AM	4	117	62	0	49	149	3	0	12	117	11	0	37	33	16	0	610
7:30 AM	8	131	55	0	91	183	3	0	9	207	20	0	35	55	29	0	826
7:45 AM	12	120	80	0	80	181	7	0	13	129	9	0	39	97	22	0	789
8:00 AM	12	117	64	0	60	123	9	0	15	120	15	0	48	90	28	0	701
8:15 AM	6	100	51	0	40	158	10	0	9	78	3	0	27	46	23	0	551
8:30 AM	3	79	32	0	37	160	5	0	6	56	6	0	21	33	17	0	455
8:45 AM	8	81	46	0	41	117	4	0	6	88	10	0	18	47	24	0	490
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	58	873	451	0	431	1205	42	0	75	847	82	0	243	426	183	0	4916
APPROACH %'s :	4.20%	63.17%	32.63%	0.00%	25.69%	71.81%	2.50%	0.00%	7.47%	84.36%	8.17%	0.00%	28.52%	50.00%	21.48%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM				07:15 AM	38	37	44	07:30 AM								TOTAL
PEAK HR VOL :	36	485	261	0	280	636	22	0	49	573	55	0	159	275	95	0	2926
PEAK HR FACTOR :	0.750	0.926	0.816	0.000	0.769	0.869	0.611	0.000	0.817	0.692	0.688	0.000	0.828	0.709	0.819	0.000	0.886
		0.922				0.847				0.717				0.797			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	10	140	61	0	29	162	8	0	3	88	7	0	81	150	39	0	778
4:15 PM	21	138	51	0	24	160	5	0	8	108	8	0	56	190	47	0	816
4:30 PM	12	140	62	0	21	149	10	0	9	81	7	0	71	137	49	0	748
4:45 PM	15	152	61	0	29	169	6	0	13	88	8	0	60	125	41	0	767
5:00 PM	9	136	60	0	23	178	6	0	9	113	13	0	56	185	46	0	834
5:15 PM	9	138	81	0	23	128	3	0	8	88	4	0	51	157	48	0	738
5:30 PM	9	151	52	0	26	146	4	0	8	75	2	0	63	152	47	0	735
5:45 PM	6	124	69	0	22	118	7	0	7	77	9	0	44	128	64	0	675
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	91	1119	497	0	197	1210	49	0	65	718	58	0	482	1224	381	0	6091
APPROACH %'s :	5.33%	65.55%	29.12%	0.00%	13.53%	83.10%	3.37%	0.00%	7.73%	85.37%	6.90%	0.00%	23.10%	58.65%	18.26%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM				04:15 PM	290	289	296	05:00 PM								TOTAL
PEAK HR VOL :	57	566	234	0	97	656	27	0	39	390	36	0	243	637	183	0	3165
PEAK HR FACTOR :	0.679	0.931	0.944	0.000	0.836	0.921	0.675	0.000	0.750	0.863	0.692	0.000	0.856	0.838	0.934	0.000	0.949
		0.940				0.942				0.861				0.907			

T-26

Prepared by National Data & Surveying Services

Lewis Rd & Daily Dr

Peak Hour Turning Movement Count

ID: 19-05117-004
City: Somis

Day: Tuesday
Date: 03/12/2019

PEAK HOURS

AM: 07:15 AM - 08:15 AM
NOON: NONE
PM: 04:15 PM - 05:15 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

Lewis Rd — SOUTHBOUND

AM	356	883	0	0	981	AM
NOON	0	0	0	0	0	NOON
PM	278	772	0	0	1476	PM

0 0 0 0

EASTBOUND — Daily Dr

AM	NOON	PM	
631	0	599	⇦
0	0	0	↶ 0
156	0	264	↑ 0
10	0	3	→ 0
214	0	189	↷ 0

AM NOON PM

CONTROL

0

TEV	2727 AM	0 NOON	3044 PM
PHF	0.88		0.97

WESTBOUND — Daily Dr

PM	NOON	AM	
5	0	2	↶ 0
11	0	9	← 0
3	0	8	↰ 0
0	0	0	↷ 0
5	0	10	⇨

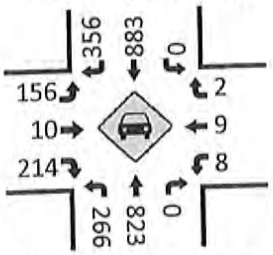
PM NOON AM

0 0 0 0

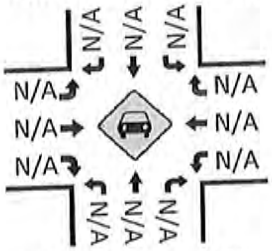
Lewis Rd — NORTHBOUND

PM	964	0	310	1207	2	PM
NOON	0	0	0	0	0	NOON
AM	1105	0	266	823	0	AM

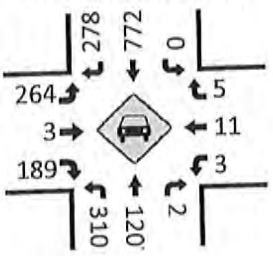
Total Vehicles (AM)



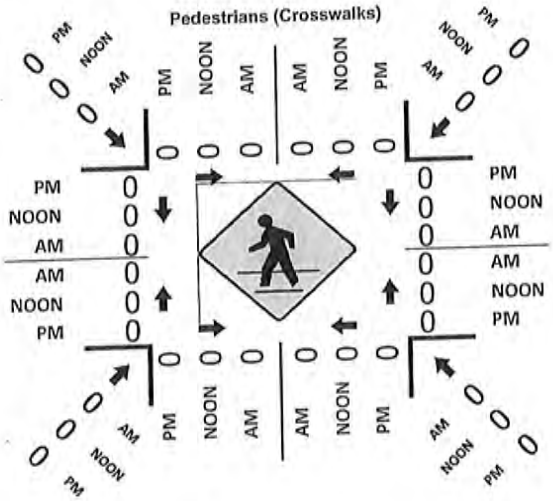
Total Vehicles (Noon)



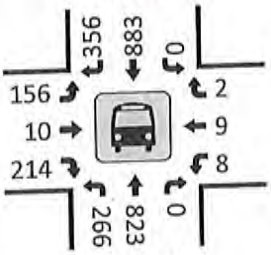
Total Vehicles (PM)



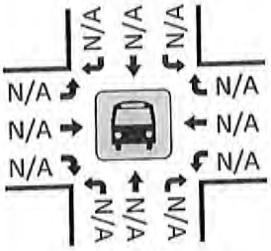
Pedestrians (Crosswalks)



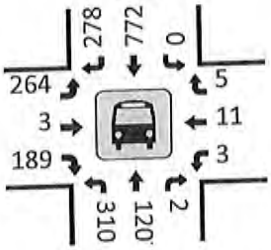
(AM)



(NOON)



(PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Lewis Rd & Daily Dr
City: Somis
Control:

Project ID: 19-05117-004
Date: 3/12/2019

Total

NS/EW Streets:	Lewis Rd				Lewis Rd				Daily Dr				Daily Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	32	173	0	0	1	181	68	0	16	1	45	0	3	6	0	0	526
7:15 AM	45	197	0	0	0	202	74	0	21	2	45	0	1	5	0	0	592
7:30 AM	62	182	0	0	0	239	107	0	33	2	61	0	1	1	1	0	689
7:45 AM	84	225	0	0	0	246	92	0	55	5	63	0	5	1	1	0	777
8:00 AM	75	219	0	0	0	196	83	0	47	1	45	0	1	2	0	0	669
8:15 AM	53	156	2	0	0	168	78	0	25	4	59	0	0	1	0	0	546
8:30 AM	30	119	0	0	0	183	73	0	39	4	55	0	3	2	0	0	508
8:45 AM	47	142	0	0	0	164	77	0	40	2	43	0	0	2	1	0	518
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	428	1413	2	0	1	1579	652	0	276	21	416	0	14	20	3	0	4825
APPROACH %'s :	23.22%	76.67%	0.11%	0.00%	0.04%	70.74%	29.21%	0.00%	38.71%	2.95%	58.35%	0.00%	37.84%	54.05%	8.11%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM				07:15 AM	38	37	44	07:45 AM				8	9	2	0	TOTAL 2727
PEAK HR VOL :	266	823	0	0	0	883	356	0	156	10	214	0	0.400	0.450	0.500	0.000	0.877
PEAK HR FACTOR :	0.792	0.914	0.000	0.000	0.000	0.897	0.832	0.000	0.709	0.500	0.849	0.000					
		0.881				0.895				0.772				0.679			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	70	248	1	0	0	146	60	0	44	2	47	0	3	4	0	0	625
4:15 PM	75	316	0	0	0	196	68	0	73	1	47	0	1	3	0	0	780
4:30 PM	72	328	1	0	0	198	67	0	57	0	50	0	1	5	2	0	781
4:45 PM	85	287	1	0	0	180	71	0	65	1	40	0	0	0	1	0	731
5:00 PM	78	276	0	0	0	198	72	0	69	1	52	0	1	3	2	0	752
5:15 PM	82	288	0	0	0	161	62	0	65	1	61	0	0	1	2	0	723
5:30 PM	72	262	0	0	0	170	69	0	78	0	52	0	4	1	0	0	708
5:45 PM	70	260	0	0	0	167	60	0	79	1	51	0	0	11	3	0	702
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	604	2265	3	0	0	1416	529	0	530	7	400	0	10	28	10	0	5802
APPROACH %'s :	21.03%	78.86%	0.10%	0.00%	0.00%	72.80%	27.20%	0.00%	56.56%	0.75%	42.69%	0.00%	20.83%	58.33%	20.83%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM				04:15 PM	290	289	296	04:30 PM				3	11	5	0	TOTAL 3044
PEAK HR VOL :	310	1207	2	0	0	772	278	0	264	3	189	0	0.750	0.550	0.625	0.000	0.974
PEAK HR FACTOR :	0.912	0.920	0.500	0.000	0.000	0.975	0.965	0.000	0.904	0.750	0.909	0.000					
		0.947				0.972				0.934				0.594			

Prepared by National Data & Surveying Services

US Hwy 101 NB Ramps & Daily Dr

Peak Hour Turning Movement Count

ID: 19-05117-006
City: Somis

Day: Tuesday
Date: 03/12/2019

PEAK HOURS
07:30 AM - 08:30 AM
NONE
04:45 PM - 05:45 PM

COUNT PERIODS
07:00 AM - 09:00 AM
NONE
04:00 PM - 06:00 PM

US Hwy 101 NB Ramps — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Daily Dr

AM	NOON	PM	
552	0	1642	⇦
0	0	0	↰ 0
0	0	0	↑ 0
142	0	198	→ 0
175	0	86	↱ 0
AM	NOON	PM	

CONTROL

0

	AM	NOON	PM
TEV	1593	0	2499
PHF	0.88		0.97

WESTBOUND — Daily Dr

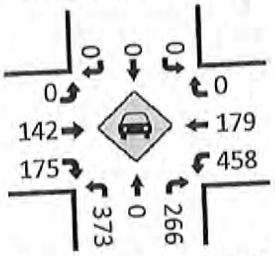
PM	NOON	AM	
0	0	0	0 ↰
333	0	179	0 ←
294	0	458	0 ↶
0	0	0	0 ↷
477	0	408	⇨
PM	NOON	AM	

NORTHBOUND — US Hwy 101 NB Ramps

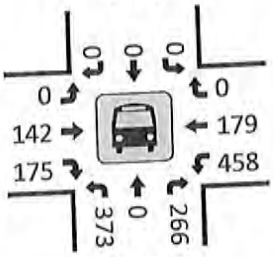
PM	380	0	1309	0	279	PM
NOON	0	0	0	0	0	NOON
AM	633	0	373	0	266	AM

0 0 0 0 ⇩

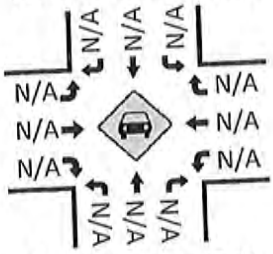
Total Vehicles (AM)



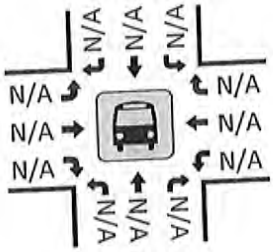
(AM)



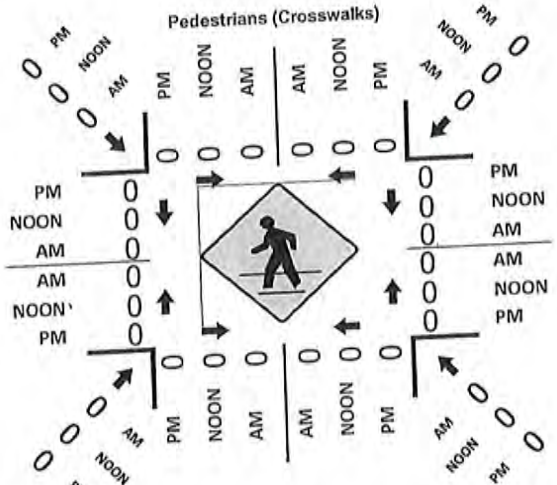
Total Vehicles (Noon)



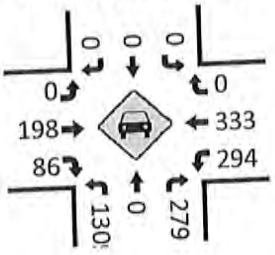
(NOON)



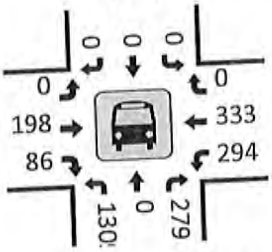
Pedestrians (Crosswalks)



Total Vehicles (PM)



(PM)



T-29

National Data & Surveying Services

Intersection Turning Movement Count

Location: US Hwy 101 NB Ramps & Daily Dr
City: Somis
Control:

Project ID: 19-05117-006
Date: 3/12/2019

Total

NS/EW Streets:	US Hwy 101 NB Ramps				US Hwy 101 NB Ramps				Daily Dr				Daily Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	52	0	43	0	0	0	0	0	0	15	30	0	87	19	0	0	246
7:15 AM	57	0	57	0	0	0	0	0	0	17	43	0	98	26	0	0	298
7:30 AM	82	0	58	0	0	0	0	0	0	45	49	0	128	42	0	0	404
7:45 AM	107	0	85	0	0	0	0	0	0	38	47	0	125	50	0	0	452
8:00 AM	83	0	67	0	0	0	0	0	0	27	38	0	110	55	0	0	380
8:15 AM	101	0	56	0	0	0	0	0	0	32	41	0	95	32	0	0	357
8:30 AM	88	0	71	0	0	0	0	0	0	27	39	0	79	29	0	0	333
8:45 AM	107	0	51	0	0	0	0	0	0	34	21	0	93	33	0	0	339
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	677	0	488	0	0	0	0	0	0	235	308	0	815	286	0	0	2809
APPROACH %'s :	58.11%	0.00%	41.89%	0.00%					0.00%	43.28%	56.72%	0.00%	74.02%	25.98%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM				07:30 AM	39	37	44	07:45 AM								TOTAL
PEAK HR VOL :	373	0	266	0	0	0	0	0	0	142	175	0	458	179	0	0	1593
PEAK HR FACTOR :	0.871	0.000	0.782	0.000	0.000	0.000	0.000	0.000	0.000	0.789	0.893	0.000	0.895	0.814	0.000	0.000	0.881
	0.832								0.843				0.910				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	273	0	54	0	0	0	0	0	0	41	20	0	89	53	0	0	530
4:15 PM	314	0	65	0	0	0	0	0	0	49	20	0	84	74	0	0	606
4:30 PM	321	0	65	0	0	0	0	0	0	43	11	0	98	61	0	0	599
4:45 PM	302	0	62	0	0	0	0	0	0	41	18	0	90	86	0	0	599
5:00 PM	329	0	72	0	0	0	0	0	0	55	26	0	83	75	0	0	640
5:15 PM	351	0	72	0	0	0	0	0	0	53	20	0	65	86	0	0	647
5:30 PM	327	0	73	0	0	0	0	0	0	49	22	0	56	86	0	0	613
5:45 PM	296	0	78	0	0	0	0	0	0	59	20	0	54	90	0	0	597
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2513	0	541	0	0	0	0	0	0	390	157	0	619	611	0	0	4831
APPROACH %'s :	82.29%	0.00%	17.71%	0.00%					0.00%	71.30%	28.70%	0.00%	50.33%	49.67%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM				04:45 PM	292	289	296	05:15 PM								TOTAL
PEAK HR VOL :	1309	0	279	0	0	0	0	0	0	198	86	0	294	333	0	0	2499
PEAK HR FACTOR :	0.932	0.000	0.955	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.827	0.000	0.817	0.968	0.000	0.000	0.966
	0.939								0.877				0.891				

Prepared by National Data & Surveying Services

US Hwy 101 SB Ramps & Ventura Blvd

Peak Hour Turning Movement Count

ID: 19-05117-007
City: Somis

Day: Tuesday
Date: 03/12/2019

PEAK HOURS
07:30 AM - 08:30 AM
NONE
04:45 PM - 05:45 PM

COUNT PERIODS
07:00 AM - 09:00 AM
NONE
04:00 PM - 06:00 PM

US Hwy 101 SB Ramps — SOUTHBOUND

AM	12	10	235	0	520	AM
NOON	0	0	0	0	0	NOON
PM	38	18	434	0	577	PM

EASTBOUND — Ventura Blvd

AM	NOON	PM	
167	0	887	⇦
0	0	0	↶ 0
15	0	148	↱ 0
118	0	407	→ 0
12	0	17	↳ 0
AM	NOON	PM	

WESTBOUND — Ventura Blvd

PM	NOON	AM	
413	0	487	0 ↰
816	0	148	0 ←
28	0	24	0 ↶
0	0	0	0 ↰
871	0	375	⇨
PM	NOON	AM	

CONTROL

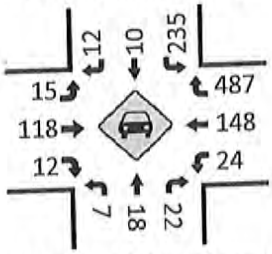
0

TEV	1108 AM	0 NOON	2398 PM
PHF	0.98		0.95

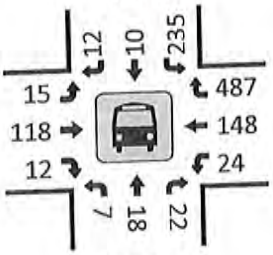
NORTHBOUND — US Hwy 101 SB Ramps

PM	63	0	33	16	30	PM
NOON	0	0	0	0	0	NOON
AM	46	0	7	18	22	AM

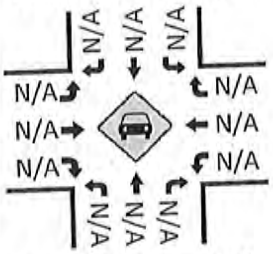
Total Vehicles (AM)



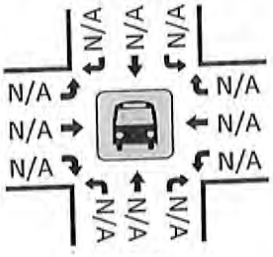
(AM)



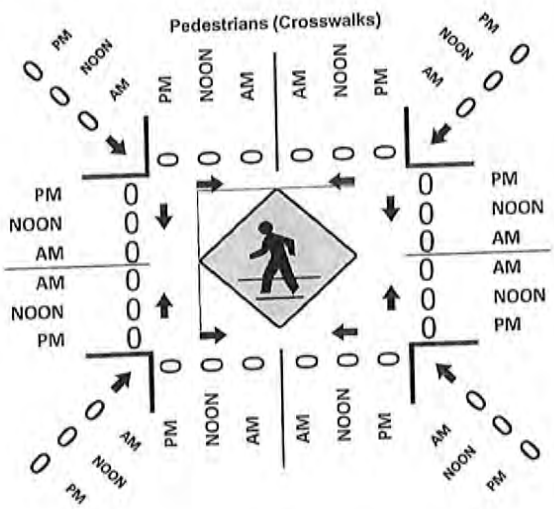
Total Vehicles (Noon)



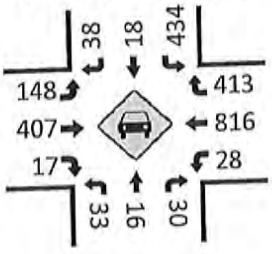
(NOON)



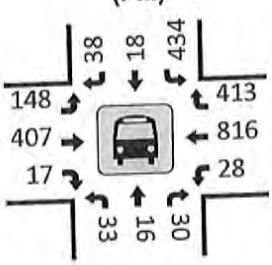
Pedestrians (Crosswalks)



Total Vehicles (PM)



(PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: US Hwy 101 SB Ramps & Ventura Blvd
City: Somis
Control:

Project ID: 19-05117-007
Date: 3/12/2019

Total

NS/EW Streets:	US Hwy 101 SB Ramps				US Hwy 101 SB Ramps				Ventura Blvd				Ventura Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	2	4	0	39	3	2	0	7	14	3	0	3	27	115	0	221
7:15 AM	7	1	2	0	55	6	1	0	4	35	7	0	6	26	97	0	247
7:30 AM	2	4	3	0	57	0	3	0	2	24	1	0	2	31	149	0	278
7:45 AM	0	7	9	0	64	1	2	0	3	39	5	0	5	49	100	0	284
8:00 AM	1	5	6	0	52	4	5	0	5	32	2	0	7	40	111	0	270
8:15 AM	4	2	4	0	62	5	2	0	5	23	4	0	10	28	127	0	276
8:30 AM	0	6	0	0	53	2	4	0	5	27	0	0	7	39	89	0	232
8:45 AM	2	0	4	0	79	3	6	0	2	23	3	0	4	32	83	0	241
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	18	27	32	0	461	24	25	0	33	217	25	0	44	272	871	0	2049
APPROACH %'s :	23.38%	35.06%	41.56%	0.00%	90.39%	4.71%	4.90%	0.00%	12.00%	78.91%	9.09%	0.00%	3.71%	22.91%	73.38%	0.00%	
PEAK HR :	**07:30 AM - 08:30 AM**				07:30 AM	39	37	44	07:45 AM								TOTAL
PEAK HR VOL :	7	18	22	0	235	10	12	0	15	118	12	0	24	148	487	0	1108
PEAK HR FACTOR :	0.438	0.643	0.611	0.000	0.918	0.500	0.600	0.000	0.750	0.756	0.600	0.000	0.600	0.755	0.817	0.000	0.975
		0.734				0.931				0.771				0.905			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	9	3	10	0	83	9	8	0	44	105	1	0	12	207	75	0	566
4:15 PM	8	5	7	0	69	5	13	0	29	92	2	0	10	201	75	0	516
4:30 PM	5	3	10	0	72	5	9	0	42	85	2	0	7	167	88	0	495
4:45 PM	7	1	9	0	111	6	7	0	31	95	7	0	10	190	77	0	551
5:00 PM	8	6	5	0	100	4	12	0	30	124	3	0	3	207	128	0	630
5:15 PM	9	6	7	0	103	3	8	0	46	94	4	0	5	209	107	0	601
5:30 PM	9	3	9	0	120	5	11	0	41	94	3	0	10	210	101	0	616
5:45 PM	6	4	5	0	89	3	15	0	21	75	5	0	13	210	80	0	526
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	61	31	62	0	747	40	83	0	284	764	27	0	70	1601	731	0	4501
APPROACH %'s :	39.61%	20.13%	40.26%	0.00%	85.86%	4.60%	9.54%	0.00%	26.42%	71.07%	2.51%	0.00%	2.91%	66.65%	30.43%	0.00%	
PEAK HR :	**04:45 PM - 05:45 PM**				04:45 PM	292	289	296	05:00 PM								TOTAL
PEAK HR VOL :	33	16	30	0	434	18	38	0	148	407	17	0	28	816	413	0	2398
PEAK HR FACTOR :	0.917	0.667	0.833	0.000	0.904	0.750	0.792	0.000	0.804	0.821	0.607	0.000	0.700	0.971	0.807	0.000	0.952
		0.898				0.901				0.911				0.930			

Prepared by National Data & Surveying Services

Lewis Rd & Ventura Blvd

Peak Hour Turning Movement Count

ID: 19-05117-005
City: Somis

Day: Tuesday
Date: 03/12/2019

PEAK HOURS

AM	07:15 AM - 08:15 AM
NOON	NONE
PM	04:15 PM - 05:15 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

Lewis Rd — SOUTHBOUND

AM	428	637	22	0	1089	AM
NOON	0	0	0	0	0	NOON
PM	319	656	12	0	1520	PM

Ventura Blvd — EASTBOUND

AM	NOON	PM	
618	0	749	
0	0	0	0
400	0	541	0
26	0	16	0
341	0	283	0

CONTROL

0

TEV	2753	0	3257
	AM	NOON	PM
PHF	0.85		0.97

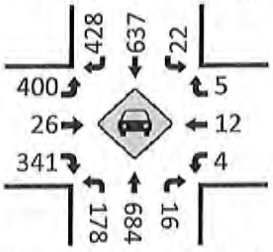
WESTBOUND — Ventura Blvd

PM	NOON	AM	
11	0	5	0
17	0	12	0
6	0	4	0
0	0	0	0
43	0	64	

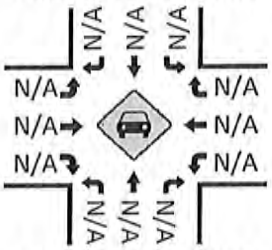
Lewis Rd — NORTHBOUND

PM	945	0	413	968	15	PM
NOON	0	0	0	0	0	NOON
AM	982	0	178	684	16	AM

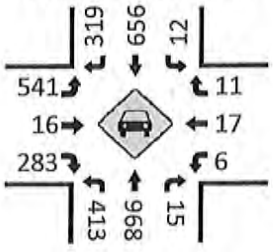
Total Vehicles (AM)



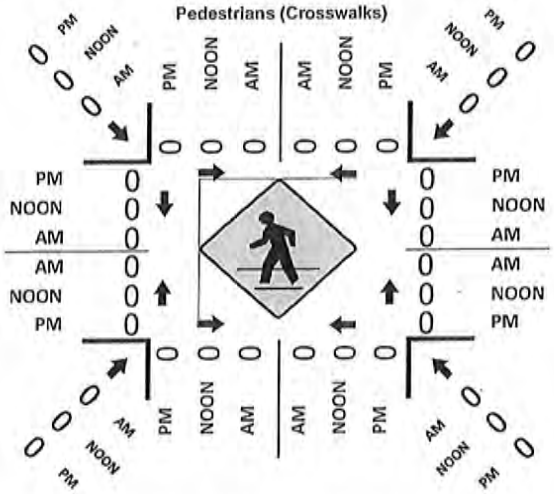
Total Vehicles (Noon)



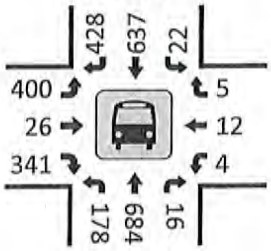
Total Vehicles (PM)



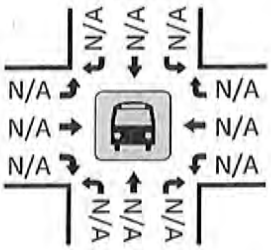
Pedestrians (Crosswalks)



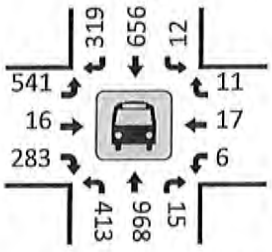
(AM)



(NOON)



(PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Lewis Rd & Ventura Blvd
City: Somis
Control:

Project ID: 19-05117-005
Date: 3/12/2019

Total

NS/EW Streets:	Lewis Rd				Lewis Rd				Ventura Blvd				Ventura Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	17	107	6	0	5	148	76	0	94	6	75	0	3	3	1	0	541
7:15 AM	24	153	4	0	5	146	96	0	91	6	79	0	1	1	1	0	607
7:30 AM	38	140	5	0	4	175	121	0	98	6	73	0	1	5	2	0	668
7:45 AM	57	216	7	0	9	167	134	0	95	11	107	0	1	5	2	0	811
8:00 AM	59	175	0	0	4	149	77	0	116	3	82	0	1	1	0	0	667
8:15 AM	34	121	3	0	5	158	77	0	88	10	98	0	2	1	1	0	598
8:30 AM	15	89	3	0	3	156	78	0	64	6	118	0	1	0	1	0	534
8:45 AM	31	108	4	0	1	136	59	0	77	10	118	0	1	3	1	0	549
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	275	1109	32	0	36	1235	718	0	723	58	750	0	11	19	9	0	4975
APPROACH %'s :	19.42%	78.32%	2.26%	0.00%	1.81%	62.09%	36.10%	0.00%	47.22%	3.79%	48.99%	0.00%	28.21%	48.72%	23.08%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM				07:15 AM	38	37	44	07:45 AM								TOTAL
PEAK HR VOL :	178	684	16	0	22	637	428	0	400	26	341	0	4	12	5	0	2753
PEAK HR FACTOR :	0.754	0.792	0.571	0.000	0.611	0.910	0.799	0.000	0.862	0.591	0.797	0.000	1.000	0.600	0.625	0.000	0.849
		0.784				0.877				0.900				0.656			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	93	179	3	0	3	114	72	0	143	3	93	0	2	3	0	0	708
4:15 PM	100	252	4	0	4	172	77	0	135	6	79	0	2	2	0	0	833
4:30 PM	100	267	3	0	3	174	75	0	140	2	68	0	0	4	2	0	838
4:45 PM	116	219	4	0	3	128	86	0	140	3	65	0	4	3	5	0	776
5:00 PM	97	230	4	0	2	182	81	0	126	5	71	0	0	8	4	0	810
5:15 PM	110	239	4	0	5	131	74	0	123	4	72	0	0	4	3	0	769
5:30 PM	97	206	4	0	4	157	71	0	134	5	68	0	3	5	1	0	755
5:45 PM	102	197	9	0	5	148	76	0	138	10	70	0	3	4	4	0	766
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	815	1789	35	0	29	1206	612	0	1079	38	586	0	14	33	19	0	6255
APPROACH %'s :	30.88%	67.79%	1.33%	0.00%	1.57%	65.30%	33.13%	0.00%	63.36%	2.23%	34.41%	0.00%	21.21%	50.00%	28.79%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM				04:15 PM	290	289	296	04:30 PM								TOTAL
PEAK HR VOL :	413	968	15	0	12	656	319	0	541	16	283	0	6	17	11	0	3257
PEAK HR FACTOR :	0.890	0.906	0.938	0.000	0.750	0.901	0.927	0.000	0.966	0.667	0.896	0.000	0.375	0.531	0.550	0.000	0.972
		0.943				0.931				0.955				0.708			

T-34

Prepared by National Data & Surveying Services

SR 118/Santa Clara Ave & SR 118/Los Angeles Ave

Peak Hour Turning Movement Count

ID: 19-05670-001
City: Somis

Day: Tuesday
Date: 11/05/2019

PEAK HOURS
07:15 AM - 08:15 AM
NONE
04:00 PM - 05:00 PM

COUNT PERIODS
07:00 AM - 09:00 AM
NONE
04:00 PM - 06:00 PM

SR 118/Santa Clara Ave — SOUTHBOUND

AM	332	341	0	0	773	AM
NOON	0	0	0	0	0	NOON
PM	222	470	1	0	574	PM
	1	1	0	0		

SR 118/Los Angeles Ave — EASTBOUND

AM	NOON	PM	
640	0	550	
0	0	0	0
335	0	279	0.5
0	0	0	0
421	0	291	0.5
AM	NOON	PM	

CONTROL

Signalized

TEV	2175	0	1888
	AM	NOON	PM
PHF	0.93		0.97

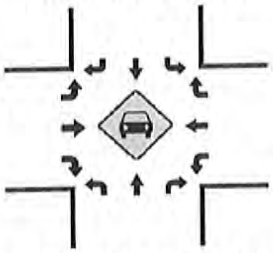
SR 118/Los Angeles Ave — WESTBOUND

PM	NOON	AM	
0	0	1	0
1	0	1	1
2	0	0	0
0	0	0	0
1	0	0	
PM	NOON	AM	

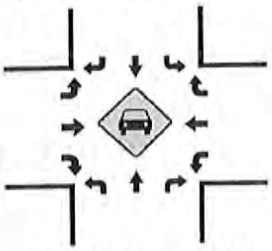
SR 118/Santa Clara Ave — NORTHBOUND

	0	1	1	0		
PM	763	0	327	295	0	PM
NOON	0	0	0	0	0	NOON
AM	762	0	307	437	0	AM

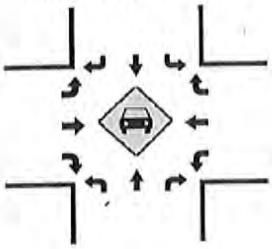
Total Vehicles (AM)



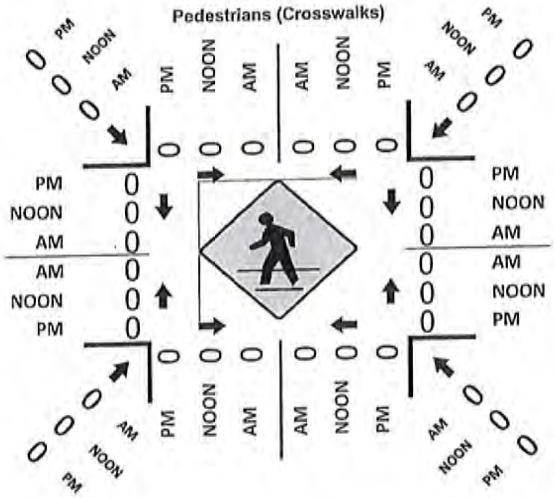
Total Vehicles (NOON)



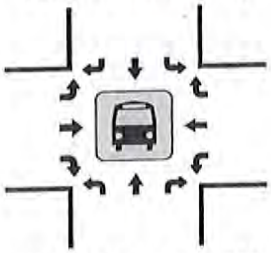
Total Vehicles (PM)



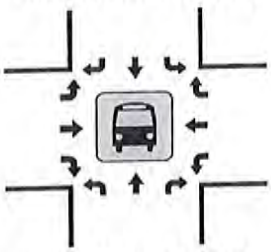
Pedestrians (Crosswalks)



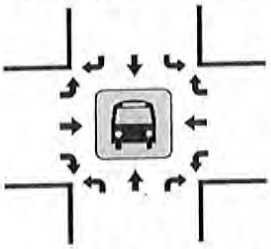
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: SR 118/Santa Clara Ave & SR 118/Los Angeles Ave
City: Somis
Control: Signalized

Project ID: 19-05670-001
Date: 11/5/2019

Total

NS/EW Streets:	SR 118/Santa Clara Ave				SR 118/Santa Clara Ave				SR 118/Los Angeles Ave				SR 118/Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	1	0	0.5	0	0.5	0	0	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	47	56	0	0	0	71	72	0	69	0	104	0	0	0	0	0	419
7:15 AM	83	72	0	0	0	63	88	0	82	0	121	0	0	1	0	0	510
7:30 AM	87	124	0	0	0	74	90	0	86	0	85	0	0	0	1	0	547
7:45 AM	84	132	0	0	0	82	81	0	85	0	118	0	0	0	0	0	582
8:00 AM	53	109	0	0	0	122	73	0	82	0	97	0	0	0	0	0	536
8:15 AM	71	66	0	0	0	93	84	0	72	0	89	0	0	0	0	0	475
8:30 AM	58	46	0	0	0	115	89	0	47	0	99	0	0	0	0	0	454
8:45 AM	77	41	1	0	0	53	67	0	50	0	93	0	0	0	0	0	382
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	560	646	1	0	0	673	644	0	573	0	806	0	0	1	1	0	3905
APPROACH %'s :	46.40%	53.52%	0.08%	0.00%	0.00%	51.10%	48.90%	0.00%	41.55%	0.00%	58.45%	0.00%	0.00%	50.00%	50.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM				07:15 AM	38	37	44	07:45 AM								TOTAL
PEAK HR VOL :	307	437	0	0	0	341	332	0	335	0	421	0	0	1	1	0	2175
PEAK HR FACTOR :	0.882	0.828	0.000	0.000	0.000	0.699	0.922	0.000	0.974	0.000	0.870	0.000	0.000	0.250	0.250	0.000	0.934
	0.861				0.863				0.931				0.500				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	1	0	0.5	0	0.5	0	0	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	77	71	0	0	0	130	91	0	62	0	46	0	2	0	0	0	479
4:15 PM	67	68	0	0	0	134	75	0	69	0	72	0	0	0	0	0	485
4:30 PM	89	83	0	0	1	112	36	0	61	0	92	0	0	0	0	0	474
4:45 PM	94	73	0	0	0	94	20	0	87	0	81	0	0	1	0	0	450
5:00 PM	99	86	0	0	0	65	41	0	67	0	89	0	3	0	0	0	450
5:15 PM	100	87	0	0	0	100	78	0	53	0	78	0	0	0	0	0	496
5:30 PM	77	50	1	0	0	96	108	0	74	0	68	0	0	0	0	0	474
5:45 PM	71	48	0	0	0	116	71	0	57	0	62	0	0	0	0	0	425
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	674	566	1	0	1	847	520	0	530	0	588	0	5	1	0	0	3733
APPROACH %'s :	54.31%	45.61%	0.08%	0.00%	0.07%	61.92%	38.01%	0.00%	47.41%	0.00%	52.59%	0.00%	83.33%	16.67%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM				04:00 PM	289	289	296	04:15 PM								TOTAL
PEAK HR VOL :	327	295	0	0	1	470	222	0	279	0	291	0	2	1	0	0	1888
PEAK HR FACTOR :	0.870	0.889	0.000	0.000	0.250	0.877	0.610	0.000	0.802	0.000	0.791	0.000	0.250	0.250	0.000	0.000	0.973
	0.904				0.784				0.848				0.375				

Prepared by National Data & Surveying Services

Grimes Canyon Rd & SR 118

Peak Hour Turning Movement Count

ID: 19-05670-003
City: Moorpark

Day: Tuesday
Date: 11/05/2019

PEAK HOURS: 07:30 AM - 08:30 AM; NONE; 04:30 PM - 05:30 PM

COUNT PERIODS: 07:00 AM - 09:00 AM; NONE; 04:00 PM - 06:00 PM

Grimes Canyon Rd — SOUTHBOUND

AM	110	0	64	0	86	AM
NOON	0	0	0	0	0	NOON
PM	62	0	36	0	159	PM
	0	1	0	0		

SR 118 — EASTBOUND

AM	NOON	PM	
932	0	899	
0	0	0	0
64	0	116	1
909	0	955	1
0	0	0	0
AM	NOON	PM	

CONTROL

Signalized

TEV	1991 AM	0 NOON	2049 PM
PHF	0.99		0.95

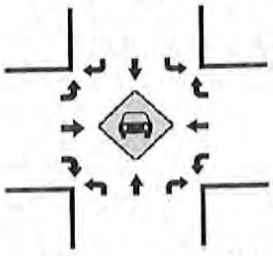
SR 118 — WESTBOUND

PM	NOON	AM	
43	0	22	1
837	0	822	1
0	0	0	0
0	0	0	0
991	0	973	
PM	NOON	AM	

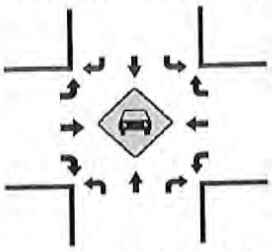
Grimes Canyon Rd — NORTHBOUND

	0	0	0	0	
PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	0	AM

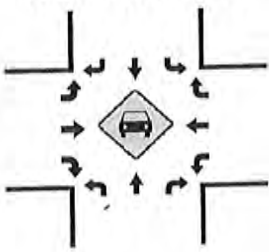
Total Vehicles (AM)



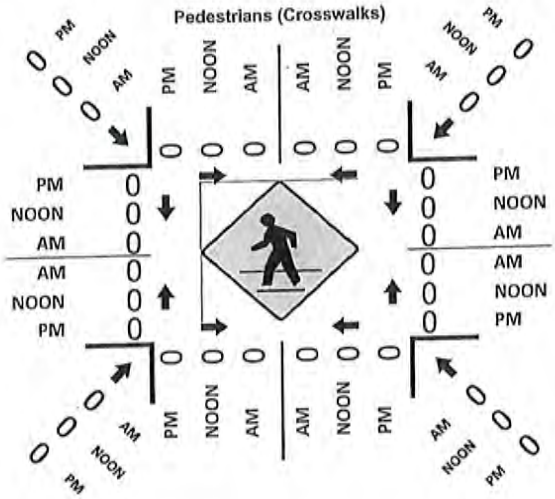
Total Vehicles (NOON)



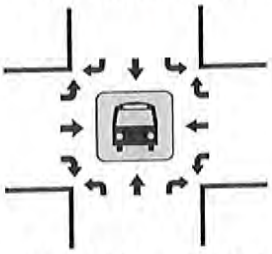
Total Vehicles (PM)



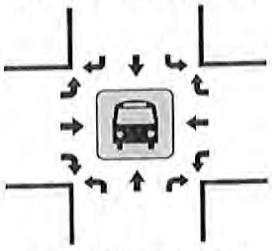
Pedestrians (Crosswalks)



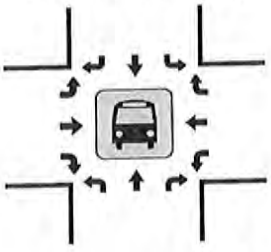
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Grimes Canyon Rd & SR 118
City: Moorpark
Control: Signalized

Project ID: 19-05670-003
Date: 11/5/2019

Total

NS/EW Streets:	Grimes Canyon Rd				Grimes Canyon Rd				SR 118				SR 118				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	0 WL	1 WT	1 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	7	0	26	0	16	172	0	0	0	191	7	0	419
7:15 AM	0	0	0	0	6	0	33	0	14	189	0	0	0	195	3	0	440
7:30 AM	0	0	0	0	15	0	31	0	17	235	0	0	0	190	6	0	494
7:45 AM	0	0	0	0	9	0	22	0	19	225	0	0	0	226	4	0	505
8:00 AM	0	0	0	0	20	0	31	0	14	235	0	0	0	196	6	0	502
8:15 AM	0	0	0	0	20	0	26	0	14	214	0	0	0	210	6	0	490
8:30 AM	0	0	0	0	22	0	17	0	17	206	0	0	0	152	2	0	416
8:45 AM	0	0	0	0	7	0	14	0	23	205	0	0	0	157	7	0	413
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	106	0	200	0	134	1681	0	0	0	1517	41	0	3679
APPROACH %'s :					34.64%	0.00%	65.36%	0.00%	7.38%	92.62%	0.00%	0.00%	0.00%	97.37%	2.63%	0.00%	
PEAK HR :	**07:30 AM - 08:30 AM**				07:30 AM	39	37	44	07:45 AM								TOTAL
PEAK HR VOL :	0	0	0	0	64	0	110	0	64	909	0	0	0	822	22	0	1991
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.800	0.000	0.887	0.000	0.842	0.967	0.000	0.000	0.000	0.909	0.917	0.000	0.986
						0.853				0.965				0.917			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	0 WL	1 WT	1 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	7	0	25	0	18	191	0	0	0	232	8	0	481
4:15 PM	0	0	0	0	6	0	13	0	34	232	0	0	0	200	10	0	495
4:30 PM	0	0	0	0	11	0	20	0	21	236	0	0	0	216	17	0	521
4:45 PM	0	0	0	0	6	0	10	0	22	246	0	0	0	185	13	0	482
5:00 PM	0	0	0	0	13	0	22	0	32	242	0	0	0	224	7	0	540
5:15 PM	0	0	0	0	6	0	10	0	41	231	0	0	0	212	6	0	506
5:30 PM	0	0	0	0	8	0	19	0	23	226	0	0	0	215	7	0	498
5:45 PM	0	0	0	0	4	0	12	0	27	217	0	0	0	158	27	0	445
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	61	0	131	0	218	1821	0	0	0	1642	95	0	3968
APPROACH %'s :					31.77%	0.00%	68.23%	0.00%	10.69%	89.31%	0.00%	0.00%	0.00%	94.53%	5.47%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**				04:30 PM	291	289	296	05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	36	0	62	0	116	955	0	0	0	837	43	0	2049
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.692	0.000	0.705	0.000	0.707	0.971	0.000	0.000	0.000	0.934	0.632	0.000	0.949
						0.700				0.977				0.944			

Prepared by National Data & Surveying Services

Balcom Canyon Rd & SR 118

Peak Hour Turning Movement Count

ID: 19-05670-002
City: Somis

Day: Tuesday
Date: 11/05/2019

PEAK HOURS

AM: 07:15 AM - 08:15 AM
NOON: NONE
PM: 04:15 PM - 05:15 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

Balcom Canyon Rd — SOUTHBOUND

AM	52	0	107	0	104	AM
NOON	0	0	0	0	0	NOON
PM	78	0	84	0	127	PM
	1	0	1	0		

SR 118 — EASTBOUND

AM	NOON	PM	
888	0	879	
0	0	0	0
47	0	44	1
884	0	981	1
0	0	0	0
AM	NOON	PM	

SR 118 — WESTBOUND

PM	NOON	AM	
83	0	57	0
801	0	836	1
0	0	0	0
0	0	0	0
1065	0	991	
PM	NOON	AM	

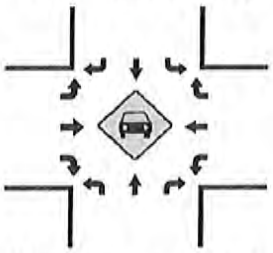
CONTROL: 1-Way Stop (SB)

TEV	1983 AM	0 NOON	2071 PM
PHF	0.95		0.96

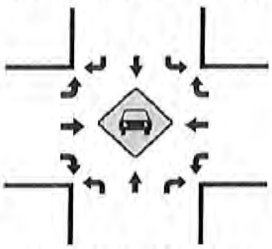
Balcom Canyon Rd — NORTHBOUND

		0	0	0	0	
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

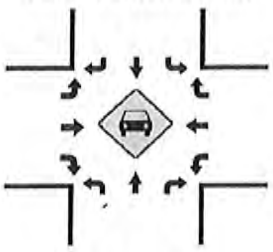
Total Vehicles (AM)



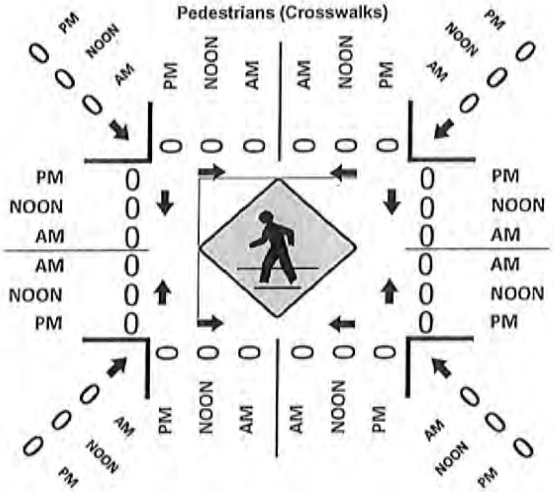
Total Vehicles (NOON)



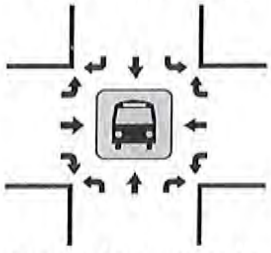
Total Vehicles (PM)



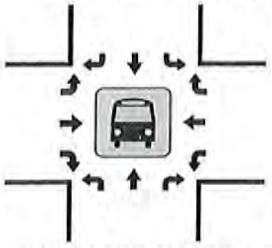
Pedestrians (Crosswalks)



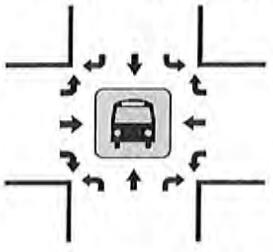
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



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National Data & Surveying Services

Intersection Turning Movement Count

Location: Balcom Canyon Rd & SR 118
City: Somis
Control: 1-Way Stop (SB)

Project ID: 19-05670-002
Date: 11/5/2019

Total

NS/EW Streets:	Balcom Canyon Rd				Balcom Canyon Rd				SR 118				SR 118				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	1 SL	0 ST	1 SR	0 SU	1 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	17	0	15	0	14	184	0	0	0	211	13	0	454
7:15 AM	0	0	0	0	23	0	17	0	12	200	0	0	0	200	13	0	465
7:30 AM	0	0	0	0	30	0	10	0	13	234	0	0	0	223	12	0	522
7:45 AM	0	0	0	0	24	0	13	0	10	225	0	0	0	219	15	0	506
8:00 AM	0	0	0	0	30	0	12	0	12	225	0	0	0	194	17	0	490
8:15 AM	0	0	0	0	17	0	6	0	11	189	0	0	0	203	15	0	441
8:30 AM	0	0	0	0	14	0	7	0	7	219	0	0	0	171	16	0	434
8:45 AM	0	0	0	0	20	0	11	0	7	176	0	0	0	150	13	0	377
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	175	0	91	0	86	1652	0	0	0	1571	114	0	3689
APPROACH %'s :					65.79%	0.00%	34.21%	0.00%	4.95%	95.05%	0.00%	0.00%	0.00%	93.23%	6.77%	0.00%	
PEAK HR :	**07:15 AM - 08:15 AM**				07:15 AM	38	37	44	07:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	107	0	52	0	47	884	0	0	0	836	57	0	1983
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.892	0.000	0.765	0.000	0.904	0.944	0.000	0.000	0.000	0.937	0.838	0.000	0.950
						0.946				0.942				0.950			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	1 SL	0 ST	1 SR	0 SU	1 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	19	0	24	0	12	232	0	0	0	216	16	0	519
4:15 PM	0	0	0	0	12	0	11	0	12	243	0	0	0	206	19	0	503
4:30 PM	0	0	0	0	26	0	34	0	14	243	0	0	0	202	21	0	540
4:45 PM	0	0	0	0	27	0	20	0	10	246	0	0	0	185	19	0	507
5:00 PM	0	0	0	0	19	0	13	0	8	249	0	0	0	208	24	0	521
5:15 PM	0	0	0	0	14	0	14	0	8	244	0	0	0	207	11	0	498
5:30 PM	0	0	0	0	15	0	11	0	13	251	0	0	0	217	19	0	526
5:45 PM	0	0	0	0	18	0	8	0	8	193	0	0	0	195	14	0	436
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	150	0	135	0	85	1901	0	0	0	1636	143	0	4050
APPROACH %'s :					52.63%	0.00%	47.37%	0.00%	4.28%	95.72%	0.00%	0.00%	0.00%	91.96%	8.04%	0.00%	
PEAK HR :	**04:15 PM - 05:15 PM**				04:15 PM	290	289	296	04:30 PM								TOTAL
PEAK HR VOL :	0	0	0	0	84	0	78	0	44	981	0	0	0	801	83	0	2071
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.778	0.000	0.574	0.000	0.786	0.985	0.000	0.000	0.000	0.963	0.865	0.000	0.959
						0.675				0.997				0.953			

LEVEL OF SERVICE CALCULATION WORKSHEETS

Reference 1 - State Route 118/Somis Rd.
Reference 2 - Las Posas Rd./Camino Alvarez
Reference 3 - Somis Rd./Las Posas Rd.
Reference 4 - Upland Rd./Flynn Rd.
Reference 5 - Lewis Rd./Adolfo Rd.
Reference 6 - Lewis Rd./Daily Dr.
Reference 7 - U.S. Highway 101 Northbound Ramps/Daily Dr.
Reference 8 - U.S. Highway 101 Southbound Ramps/Ventura Blvd.
Reference 9 - Lewis Rd./Ventura Blvd.
Reference 10 - State Route 118/Santa Clara Ave.
Reference 11 - State Route 118/Grimes Canyon Rd.
Reference 12 - State Route 118/Balcom Canyon Rd.

REF: 01 AM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*
TIME PERIOD: *A.M. PEAK HOUR*
N/S STREET: *SOMIS ROAD*
E/W STREET: *STATE ROUTE 118*
CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	89	59	545	24	131	26	12	344	177	447	431	19
(B) PROJECT-ADDED:	35	0	32	0	0	0	0	0	10	10	0	0
(C) CUMULATIVE:	103	59	573	24	131	26	12	346	182	472	438	19

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	LT R	L TR	L TR	L TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	89	124	103	138	-	-	-	-
NBT	1	1600	59	59	59	59	0.093 *	0.114 *	0.101 *	0.123 *
NBR	1	1600	98	104	103	109	0.061	0.065	0.064	0.068
SBL	1	1600	24	24	24	24	0.015	0.015	0.015	0.015
SBT	1	1600	131	131	131	131	0.098 *	0.098 *	0.098 *	0.098 *
SBR	0	0	26	26	26	26	-	-	-	-
EBL	1	1600	12	12	12	12	0.01	0.01	0.01	0.01
EBT	1	1600	344	344	346	346	0.326 *	0.332 *	0.330 *	0.336 *
EBR	0	0	177	187	182	192	-	-	-	-
WBL	1	1600	447	457	472	482	0.28 *	0.29 *	0.30 *	0.30 *
WBT	1	1600	431	431	438	438	0.281	0.281	0.286	0.286
WBR	0	0	19	19	19	19	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.796	0.830	0.824	0.858
					SCENARIO LEVEL OF SERVICE:		C	D	D	D

NOTES: Northbound Righ-Turn Overlap with Westbound Left-Turn

Printed: 12/05/19

REF: 01 PM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT
INTERSECTION CAPACITY UTILIZATION WORKSHEET
COUNT DATE: *MARCH 12, 2019*
TIME PERIOD: *P.M. PEAK HOUR*
N/S STREET: *SOMIS ROAD*
E/W STREET: *STATE ROUTE 118*
CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	88	134	626	26	129	17	11	301	116	362	217	9
(B) PROJECT-ADDED:	20	0	19	0	0	0	0	0	34	32	0	0
(C) CUMULATIVE:	105	134	668	26	129	17	11	308	149	405	220	9

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	LT R	L TR	L TR	L TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	88	108	105	125	-	-	-	-
NBT	1	1600	134	134	134	134	0.139	0.151	0.149	0.162
NBR	1	1600	264	272	282	290	0.165 *	0.170 *	0.176 *	0.181 *
SBL	1	1600	26	26	26	26	0.016	0.016	0.016	0.016
SBT	1	1600	129	129	129	129	0.091 *	0.091 *	0.091 *	0.091 *
SBR	0	0	17	17	17	17	-	-	-	-
EBL	1	1600	11	11	11	11	0.01	0.01	0.01	0.01
EBT	1	1600	301	301	308	308	0.261 *	0.282 *	0.286 *	0.307 *
EBR	0	0	116	150	149	183	-	-	-	-
WBL	1	1600	362	394	405	437	0.23 *	0.25 *	0.25 *	0.27 *
WBT	1	1600	217	217	220	220	0.141	0.141	0.143	0.143
WBR	0	0	9	9	9	9	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.743	0.789	0.806	0.852
					SCENARIO LEVEL OF SERVICE:		C	C	D	D

NOTES:Northbound Righ-Turn Overlap with Westbound Left-Turn

Printed: 12/05/19

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REF: 02 AM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT
INTERSECTION CAPACITY UTILIZATION WORKSHEET
COUNT DATE: *MARCH 12, 2019*
TIME PERIOD: *A.M. PEAK HOUR*
N/S STREET: *CAMINO ALVAREZ*
E/W STREET: *LAS POSAS ROAD*
CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	65	42	44	58	44	17	31	835	92	17	794	73
(B) PROJECT-ADDED:	0	0	0	0	0	0	0	1	0	0	2	0
(C) CUMULATIVE:	65	42	44	58	44	17	31	843	92	17	828	73

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L TR	L TR	L T TR	L T TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	65	65	65	65	0.04 *	0.04 *	0.04 *	0.04 *
NBT	1	1600	42	42	42	42	0.031	0.031	0.031	0.031
NBR	0	0	8	8	8	8	-	-	-	-
SBL	1	1600	58	58	58	58	0.036	0.036	0.036	0.036
SBT	1	1600	44	44	44	44	0.038 *	0.038 *	0.038 *	0.038 *
SBR	0	0	17	17	17	17	-	-	-	-
EBL	1	1600	31	31	31	31	0.02	0.02	0.02	0.02
EBT	2	3200	835	836	843	844	0.290 *	0.290 *	0.292 *	0.293 *
EBR	0	0	92	92	92	92	-	-	-	-
WBL	1	1600	17	17	17	17	0.01 *	0.01 *	0.01 *	0.01 *
WBT	2	3200	794	796	828	830	0.271	0.272	0.282	0.282
WBR	0	0	73	73	73	73	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.380	0.380	0.382	0.383
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

REF: 02 PM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *P.M. PEAK HOUR*

N/S STREET: *CAMINO ALVAREZ*

E/W STREET: *LAS POSAS ROAD*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	41	3	35	27	10	2	6	911	79	5	1011	9
(B) PROJECT-ADDED:	0	0	0	0	0	0	0	3	0	0	2	0
(C) CUMULATIVE:	41	3	35	27	10	2	6	938	79	5	1026	9

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L TR	L TR	L T TR	L T TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVE-MENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	41	41	41	41	0.03 *	0.03 *	0.03 *	0.03 *
NBT	1	1600	3	3	3	3	0.006	0.006	0.006	0.006
NBR	0	0	6	6	6	6	-	-	-	-
SBL	1	1600	27	27	27	27	0.017	0.017	0.017	0.017
SBT	1	1600	10	10	10	10	0.008 *	0.008 *	0.008 *	0.008 *
SBR	0	0	2	2	2	2	-	-	-	-
EBL	1	1600	6	6	6	6	0.00 *	0.00 *	0.00 *	0.00 *
EBT	2	3200	911	914	938	941	0.309	0.310	0.318	0.319
EBR	0	0	79	79	79	79	-	-	-	-
WBL	1	1600	5	5	5	5	0.00	0.00	0.00	0.00
WBT	2	3200	1011	1013	1026	1028	0.319 *	0.319 *	0.323 *	0.324 *
WBR	0	0	9	9	9	9	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.357	0.357	0.361	0.362
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

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#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT REF: 03 AM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *SOMIS ROAD*

E/W STREET: *LAS POSAS ROAD-UPLAND ROAD*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) EXISTING:	57	372	103	176	523	218	293	618	22	160	653	159
(B) PROJECT-ADDED:	0	17	0	1	58	2	1	0	0	0	0	0
(C) CUMULATIVE:	57	404	103	176	536	218	293	626	22	178	687	164

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND L T T R	SOUTH BOUND L T T R	EAST BOUND L L T TR	WEST BOUND L T T R

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVE-MENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	57	57	57	57	0.04	0.04	0.04	0.04
NBT	2	3200	372	389	404	421	0.116 *	0.122 *	0.126 *	0.132 *
NBR	1	1600	43	43	43	43	0.027	0.027	0.027	0.027
SBL	1	1600	176	177	176	177	0.110 *	0.111 *	0.110 *	0.111 *
SBT	2	3200	523	581	536	594	0.163	0.182	0.168	0.186
SBR	1	1600	218	220	218	220	0.14	0.14	0.14	0.14
EBL	2	3200	293	294	293	294	0.09	0.09	0.09	0.09
EBT	2	3200	618	618	626	626	0.200 *	0.200 *	0.203 *	0.203 *
EBR	0	0	22	22	22	22	-	-	-	-
WBL	1	1600	160	160	178	178	0.10 *	0.10 *	0.11 *	0.11 *
WBT	2	3200	653	653	687	687	0.204	0.204	0.215	0.215
WBR	1	1600	159	159	164	164	0.099	0.099	0.103	0.103
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.526	0.533	0.550	0.557
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

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REF: 03 PM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *P.M. PEAK HOUR*

N/S STREET: *SOMIS ROAD*

E/W STREET: *LAS POSAS ROAD-UPLAND ROAD*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	53	506	86	80	446	266	271	646	53	123	714	256
(B) PROJECT-ADDED:	0	57	0	0	34	2	3	0	0	0	0	1
(C) CUMULATIVE:	53	555	86	80	508	266	271	673	53	130	729	258

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND L T T R	SOUTH BOUND L T T R	EAST BOUND L L T T R	WEST BOUND L T T R

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	53	53	53	53	0.03	0.03	0.03	0.03
NBT	2	3200	506	563	555	612	0.158 *	0.176 *	0.173 *	0.191 *
NBR	1	1600	36	36	36	36	0.023	0.023	0.023	0.023
SBL	1	1600	80	80	80	80	0.050 *	0.050 *	0.050 *	0.050 *
SBT	2	3200	446	480	508	542	0.139	0.150	0.159	0.169
SBR	1	1600	266	268	266	268	0.17	0.17	0.17	0.17
EBL	2	3200	271	274	271	274	0.09 *	0.09 *	0.09 *	0.09 *
EBT	2	3200	646	646	673	673	0.218	0.218	0.227	0.227
EBR	0	0	53	53	53	53	-	-	-	-
WBL	1	1600	123	123	130	130	0.08	0.08	0.08	0.08
WBT	2	3200	714	714	729	729	0.223 *	0.223 *	0.228 *	0.228 *
WBR	1	1600	256	257	258	259	0.160	0.161	0.161	0.162
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.516	0.535	0.536	0.555
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

T-46

REF: 04 AM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *FLYNN ROAD*

E/W STREET: *UPLAND ROAD*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	280	0	256	0	0	0	0	638	259	236	674	0
(B) PROJECT-ADDED:	0	0	0	0	0	0	0	1	0	0	0	0
(C) CUMULATIVE:	280	0	292	0	0	0	0	685	259	283	730	0

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	LL R		T T R	L T T

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	2	3200	280	280	280	280	0.09 *	0.09 *	0.09 *	0.09 *
NBT	0	0	0	0	0	0	-	-	-	-
NBR	1	1600	46	46	53	53	0.029	0.029	0.033	0.033
SBL	0	0	0	0	0	0	-	-	-	-
SBT	0	0	0	0	0	0	-	-	-	-
SBR	0	0	0	0	0	0	-	-	-	-
EBL	0	0	0	0	0	0	-	-	-	-
EBT	2	3200	638	639	685	686	0.199 *	0.200 *	0.214 *	0.214 *
EBR	1	1600	259	259	259	259	0.16	0.16	0.16	0.16
WBL	1	1600	236	236	283	283	0.15 *	0.15 *	0.18 *	0.18 *
WBT	2	3200	674	674	730	730	0.211	0.211	0.228	0.228
WBR	0	0	0	0	0	0	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.435	0.436	0.479	0.479
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

REF: 05 AM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*
TIME PERIOD: *P.M. PEAK HOUR*
N/S STREET: *FLYNN ROAD*
E/W STREET: *UPLAND ROAD*
CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	352	0	209	0	0	0	0	633	145	113	722	0
(B) PROJECT-ADDED:	0	0	0	0	0	0	0	0	0	0	1	0
(C) CUMULATIVE:	352	0	220	0	0	0	0	647	145	134	746	0

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	LL R		T T R	L T T

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	2	3200	352	352	352	352	0.11 *	0.11 *	0.11 *	0.11 *
NBT	0	0	0	0	0	0	-	-	-	-
NBR	1	1600	38	38	40	40	0.024	0.024	0.025	0.025
SBL	0	0	0	0	0	0	-	-	-	-
SBT	0	0	0	0	0	0	-	-	-	-
SBR	0	0	0	0	0	0	-	-	-	-
EBL	0	0	0	0	0	0	-	-	-	-
EBT	2	3200	633	633	647	647	0.198 *	0.198 *	0.202 *	0.202 *
EBR	1	1600	145	145	145	145	0.09	0.09	0.09	0.09
WBL	1	1600	113	113	134	134	0.07 *	0.07 *	0.08 *	0.08 *
WBT	2	3200	722	723	746	747	0.226	0.226	0.233	0.233
WBR	0	0	0	0	0	0	-	-	-	-
			LOST TIME:				0.00	0.00	0.00	0.00
			TOTAL INTERSECTION CAPACITY UTILIZATION:				0.379	0.379	0.396	0.396
			SCENARIO LEVEL OF SERVICE:				A	A	A	A

NOTES:

Printed: 12/05/19

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REF: 05 AM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *LEWIS ROAD*

E/W STREET: *ADOLFO ROAD*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	36	485	261	280	636	22	49	573	55	159	275	95
(B) PROJECT-ADDED:	0	17	0	0	58	0	0	0	0	0	0	0
(C) CUMULATIVE:	36	523	261	280	666	23	49	573	55	159	275	95

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND L T TR	SOUTH BOUND LL T TR	EAST BOUND L T TR	WEST BOUND L T TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	36	36	36	36	0.02	0.02	0.02	0.02
NBT	2	3200	485	502	523	540	0.186 *	0.191 *	0.198 *	0.203 *
NBR	0	0	110	110	110	110	-	-	-	-
SBL	2	3200	280	280	280	280	0.088 *	0.088 *	0.088 *	0.088 *
SBT	2	3200	636	694	666	724	0.206	0.224	0.215	0.233
SBR	0	0	22	22	23	23	-	-	-	-
EBL	1	1600	49	49	49	49	0.03	0.03	0.03	0.03
EBT	2	3200	573	573	573	573	0.196 *	0.196 *	0.196 *	0.196 *
EBR	0	0	55	55	55	55	-	-	-	-
WBL	1	1600	159	159	159	159	0.10 *	0.10 *	0.10 *	0.10 *
WBT	2	3200	275	275	275	275	0.116	0.116	0.116	0.116
WBR	0	0	95	95	95	95	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.569	0.574	0.581	0.586
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

REF: 05 PM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *P.M. PEAK HOUR*

N/S STREET: *LEWIS ROAD*

E/W STREET: *ADOLFO ROAD*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	57	566	234	97	656	27	39	390	36	243	637	183
(B) PROJECT-ADDED:	0	57	0	0	34	0	0	0	0	0	0	0
(C) CUMULATIVE:	57	623	234	97	725	27	40	390	36	243	637	183

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L T TR	LL T TR	L T TR	L T TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVE-MENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	57	57	57	57	0.04 *	0.04	0.04	0.04
NBT	2	3200	566	623	623	680	0.208	0.226 *	0.226 *	0.243 *
NBR	0	0	99	99	99	99	-	-	-	-
SBL	2	3200	97	97	97	97	0.030	0.030 *	0.030 *	0.030 *
SBT	2	3200	656	690	725	759	0.213 *	0.224	0.235	0.246
SBR	0	0	27	27	27	27	-	-	-	-
EBL	1	1600	39	39	40	40	0.02	0.02	0.03	0.03
EBT	2	3200	390	390	390	390	0.133 *	0.133 *	0.133 *	0.133 *
EBR	0	0	36	36	36	36	-	-	-	-
WBL	1	1600	243	243	243	243	0.15 *	0.15 *	0.15 *	0.15 *
WBT	2	3200	637	637	637	637	0.256	0.256	0.256	0.256
WBR	0	0	183	183	183	183	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.534	0.541	0.541	0.558
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

T-50

REF: 06 AM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *LEWIS ROAD*

E/W STREET: *DAILY DRIVE*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	266	823	0	0	883	356	156	10	214	8	9	2
(B) PROJECT-ADDED:	0	16	0	0	39	19	1	0	0	0	0	0
(C) CUMULATIVE:	266	861	0	0	905	364	156	10	241	8	9	2

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L T TR	TT TR	L LT R	LTR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	266	266	266	266	0.17 *	0.17 *	0.17 *	0.17 *
NBT	2	3200	823	839	861	877	0.257	0.262	0.269	0.274
NBR	0	0	0	0	0	0	-	-	-	-
SBL	0	0	0	0	0	0	-	-	-	-
SBT	3	4800	883	922	905	944	0.258 *	0.270 *	0.264 *	0.276 *
SBR	0	0	356	375	364	383	-	-	-	-
EBL	0	0	156	157	156	157	-	-	-	-
EBT	2	3200	10	10	10	10	0.052 *	0.052 *	0.052 *	0.052 *
EBR	1	1600	214	214	241	241	0.13	0.13	0.15	0.15
WBL	0	0	8	8	8	8	-	-	-	-
WBT	1	1600	9	9	9	9	0.012 *	0.012 *	0.012 *	0.012 *
WBR	0	0	2	2	2	2	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.488	0.500	0.494	0.506
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

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REF: 06 PM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *P.M. PEAK HOUR*

N/S STREET: *LEWIS ROAD*

E/W STREET: *DAILY DRIVE*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	310	1207	2	0	772	278	264	3	189	3	11	5
(B) PROJECT-ADDED:	0	56	0	0	22	12	1	0	0	0	0	0
(C) CUMULATIVE:	310	1273	2	0	838	281	265	3	314	3	11	5

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L T TR	TT TR	L LT R	LTR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	310	310	310	310	0.19 *	0.19 *	0.19 *	0.19 *
NBT	2	3200	1207	1263	1273	1329	0.378	0.395	0.398	0.416
NBR	0	0	1	1	1	1	-	-	-	-
SBL	0	0	0	0	0	0	-	-	-	-
SBT	3	4800	772	794	838	860	0.219 *	0.226 *	0.233 *	0.240 *
SBR	0	0	278	290	281	293	-	-	-	-
EBL	0	0	264	265	265	266	-	-	-	-
EBT	2	3200	3	3	3	3	0.083 *	0.084 *	0.084 *	0.084 *
EBR	1	1600	189	189	314	314	0.12	0.12	0.20	0.20
WBL	0	0	3	3	3	3	-	-	-	-
WBT	1	1600	11	11	11	11	0.012 *	0.012 *	0.012 *	0.012 *
WBR	0	0	5	5	5	5	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.508	0.516	0.523	0.530
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

T-52

REF: 07 AM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *U.S. HIGHWAY 101 NORTHBOUND RAMPS*

E/W STREET: *DAILY DRIVE*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	373	0	266	0	0	0	0	198	86	458	179	0
(B) PROJECT-ADDED:	0	0	0	0	0	0	0	1	0	17	2	0
(C) CUMULATIVE:	373	0	281	0	0	0	0	210	86	521	193	0

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L L R		T R	LL T

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	2	3200	373	373	373	373	0.12 *	0.12 *	0.12 *	0.12 *
NBT	0	0	0	0	0	0	-	-	-	-
NBR	1	1600	112	112	118	118	0.070	0.070	0.074	0.074
SBL	0	0	0	0	0	0	-	-	-	-
SBT	0	0	0	0	0	0	-	-	-	-
SBR	0	0	0	0	0	0	-	-	-	-
EBL	0	0	0	0	0	0	-	-	-	-
EBT	1	1600	198	199	210	211	0.124 *	0.124 *	0.131 *	0.132 *
EBR	1	1600	86	86	86	86	0.05	0.05	0.05	0.05
WBL	2	3200	458	475	521	538	0.14 *	0.15 *	0.16 *	0.17 *
WBT	1	1600	179	181	193	195	0.112	0.113	0.121	0.122
WBR	0	0	0	0	0	0	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.384	0.389	0.411	0.417
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

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#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT REF: 07 PM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *P.M. PEAK HOUR*

N/S STREET: *U.S. HIGHWAY 101 NORTHBOUND RAMPS*

E/W STREET: *DAILY DRIVE*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) EXISTING:	1309	0	279	0	0	0	0	142	175	294	333	0
(B) PROJECT-ADDED:	0	0	0	0	0	0	0	1	0	10	2	0
(C) CUMULATIVE:	1309	0	359	0	0	0	0	188	175	375	353	0

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L L R		T R	LL T

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVE-MENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	2	3200	1309	1309	1309	1309	0.41 *	0.41 *	0.41 *	0.41 *
NBT	0	0	0	0	0	0	-	-	-	-
NBR	1	1600	118	118	151	151	0.074	0.074	0.094	0.094
SBL	0	0	0	0	0	0	-	-	-	-
SBT	0	0	0	0	0	0	-	-	-	-
SBR	0	0	0	0	0	0	-	-	-	-
EBL	0	0	0	0	0	0	-	-	-	-
EBT	1	1600	142	143	188	189	0.089	0.089	0.118	0.118
EBR	1	1600	175	175	175	175	0.11	0.11	0.11	0.11
WBL	2	3200	294	304	375	385	0.09	0.10	0.12	0.12
WBT	1	1600	333	335	353	355	0.208 *	0.209 *	0.221 *	0.222 *
WBR	0	0	0	0	0	0	-	-	-	-
			LOST TIME:				0.00	0.00	0.00	0.00
			TOTAL INTERSECTION CAPACITY UTILIZATION:				0.617	0.618	0.630	0.631
			SCENARIO LEVEL OF SERVICE:				B	B	B	B

NOTES:

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REF: 08 AM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *U.S. HIGHWAY 101 SOUTHBOUND RAMPS*

E/W STREET: *DAILY DRIVE*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	7	18	22	235	10	12	15	118	12	24	148	487
(B) PROJECT-ADDED:	0	0	0	5	0	0	0	0	0	0	3	0
(C) CUMULATIVE:	7	18	22	255	10	22	30	118	12	24	151	487

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L TR	L LT R	LLTR	L T TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVE-MENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	7	7	7	7	-	-	-	-
NBT	1	1600	18	18	18	18	0.021 *	0.021 *	0.021 *	0.021 *
NBR	0	0	9	9	9	9	-	-	-	-
SBL	0	0	235	240	255	260	-	-	-	-
SBT	2	3200	10	10	10	10	0.077 *	0.078 *	0.083 *	0.084 *
SBR	1	1600	12	12	22	22	0.01	0.01	0.01	0.01
EBL	2	3200	15	15	30	30	0.01 *	0.01 *	0.01 *	0.01 *
EBT	1	1600	118	118	118	118	0.081	0.081	0.081	0.081
EBR	0	0	12	12	12	12	-	-	-	-
WBL	1	1600	24	24	24	24	0.02	0.02	0.02	0.02
WBT	2	3200	148	151	151	154	0.198 *	0.199 *	0.199 *	0.200 *
WBR	0	0	487	487	487	487	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.301	0.303	0.312	0.314
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

REF: 08 PM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*

TIME PERIOD: *P.M. PEAK HOUR*

N/S STREET: *U.S. HIGHWAY 101 SOUTHBOUND RAMPS*

E/W STREET: *DAILY DRIVE*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	33	16	30	434	18	38	148	407	17	28	816	413
(B) PROJECT-ADDED:	0	0	0	16	0	0	0	0	0	0	1	0
(C) CUMULATIVE:	33	16	30	523	18	83	173	407	17	28	817	413

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L TR	L LT R	LLTR	L T TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	33	33	33	33	-	-	-	-
NBT	1	1600	16	16	16	16	0.039 *	0.039 *	0.039 *	0.039 *
NBR	0	0	13	13	13	13	-	-	-	-
SBL	0	0	434	450	523	539	-	-	-	-
SBT	2	3200	18	18	18	18	0.141 *	0.146 *	0.169 *	0.174 *
SBR	1	1600	38	38	83	83	0.02	0.02	0.05	0.05
EBL	2	3200	148	148	173	173	0.05 *	0.05 *	0.05 *	0.05 *
EBT	1	1600	407	407	407	407	0.265	0.265	0.265	0.265
EBR	0	0	17	17	17	17	-	-	-	-
WBL	1	1600	28	28	28	28	0.02	0.02	0.02	0.02
WBT	2	3200	816	817	817	818	0.384 *	0.384 *	0.384 *	0.385 *
WBR	0	0	413	413	413	413	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.610	0.615	0.646	0.652
					SCENARIO LEVEL OF SERVICE:		B	B	B	B

NOTES:

Printed: 12/05/19

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#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT REF: 09 AM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *MARCH 12, 2019*
TIME PERIOD: *A.M. PEAK HOUR*
N/S STREET: *LEWIS ROAD*
E/W STREET: *VENTURA BOULEVARD*
CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) EXISTING:	178	684	16	22	656	428	400	26	341	4	12	5
(B) PROJECT-ADDED:	0	11	0	0	36	3	5	0	0	0	0	0
(C) CUMULATIVE:	226	781	16	22	702	431	404	26	368	4	12	5

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	LL T TR	L T T R	L LT R	LT R

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVE-MENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	2	3200	178	178	226	226	0.06	0.06	0.07	0.07
NBT	2	3200	684	695	781	792	0.216 *	0.219 *	0.246 *	0.250 *
NBR	0	0	7	7	7	7	-	-	-	-
SBL	1	1600	22	22	22	22	0.014 *	0.014 *	0.014 *	0.014 *
SBT	2	3200	656	692	702	738	0.205	0.216	0.219	0.231
SBR	1	1600	428	431	431	434	0.27	0.27	0.27	0.27
EBL	0	0	400	405	404	409	-	-	-	-
EBT	2	3200	26	26	26	26	0.133 *	0.135 *	0.134 *	0.136 *
EBR	1	1600	341	341	368	368	0.21	0.21	0.23	0.23
WBL	0	0	4	4	4	4	-	-	-	-
WBT	1	1600	12	12	12	12	0.010 *	0.010 *	0.010 *	0.010 *
WBR	1	1600	5	5	5	5	0.003	0.003	0.003	0.003
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.373	0.378	0.404	0.410
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

Printed: 12/05/19

REF: 09 PM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT
INTERSECTION CAPACITY UTILIZATION WORKSHEET
COUNT DATE: *MARCH 12, 2019*
TIME PERIOD: *P.M. PEAK HOUR*
N/S STREET: *LEWIS ROAD*
E/W STREET: *VENTURA BOULEVARD*
CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	413	968	15	12	637	319	541	16	283	6	17	11
(B) PROJECT-ADDED:	0	36	0	0	21	1	16	0	0	0	0	0
(C) CUMULATIVE:	486	1120	15	12	827	320	553	16	408	6	17	11

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	LL T TR	L T T R	L LT R	LT R

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVE-MENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	2	3200	413	413	486	486	0.13 *	0.13 *	0.15 *	0.15 *
NBT	2	3200	968	1004	1120	1156	0.304	0.316	0.352	0.363
NBR	0	0	6	6	6	6	-	-	-	-
SBL	1	1600	12	12	12	12	0.008	0.008	0.008	0.008
SBT	2	3200	637	658	827	848	0.199 *	0.206 *	0.258 *	0.265 *
SBR	1	1600	319	320	320	321	0.20	0.20	0.20	0.20
EBL	0	0	541	557	553	569	-	-	-	-
EBT	2	3200	16	16	16	16	0.174 *	0.179 *	0.178 *	0.183 *
EBR	1	1600	283	283	408	408	0.18	0.18	0.26	0.26
WBL	0	0	6	6	6	6	-	-	-	-
WBT	1	1600	17	17	17	17	0.014 *	0.014 *	0.014 *	0.014 *
WBR	1	1600	11	11	11	11	0.007	0.007	0.007	0.007
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.516	0.528	0.602	0.614
					SCENARIO LEVEL OF SERVICE:		A	A	A	B

NOTES:

Printed: 12/05/19

REF: 10 AM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *NOVEMBER 5, 2019*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *SANTA CLARA AVENUE - STATE ROUTE 118*

E/W STREET: *LOS ANGELES AVENUE - STATE ROUTE 118*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	307	437	0	0	341	332	335	0	421	0	1	1
(B) PROJECT-ADDED:	0	0	0	0	1	20	6	0	0	0	0	0
(C) CUMULATIVE:	310	440	0	0	351	337	340	0	421	0	1	1

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L TR	LT R	L R	LTR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	307	307	310	310	0.19 *	0.19 *	0.19 *	0.19 *
NBT	1	1600	437	437	440	440	0.273	0.273	0.275	0.275
NBR	0	0	0	0	0	0	-	-	-	-
			0	0	0	0	-	-	-	-
SBL	0	0	341	342	351	352	0.213 *	0.214 *	0.219 *	0.220 *
SBT	1	1600	332	352	337	357	0.21	0.22	0.21	0.22
SBR	1	1600					-	-	-	-
EBL	0	0	335	341	340	346	0.473 *	0.476 *	0.476 *	0.479 *
EBT	1	1600	0	0	0	0	-	-	-	-
EBR	0	0	421	421	421	421	-	-	-	-
WBL	0	0	0	0	0	0	0.001 *	0.001 *	0.001 *	0.001 *
WBT	1	1600	1	1	1	1	-	-	-	-
WBR	0	0	1	1	1	1				
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.879	0.883	0.890	0.894
					SCENARIO LEVEL OF SERVICE:		D	D	D	D

NOTES:

Printed: 12/17/19

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#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT REF: 10 PM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *NOVEMBER 5, 2019*

TIME PERIOD: *P.M. PEAK HOUR*

N/S STREET: *SANTA CLARA AVENUE - STATE ROUTE 118*

E/W STREET: *LOS ANGELES AVENUE - STATE ROUTE 118*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) EXISTING:	327	295	0	0	470	222	279	0	291	2	1	0
(B) PROJECT-ADDED:	0	1	0	0	1	12	20	0	0	0	0	0
(C) CUMULATIVE:	330	300	0	0	480	232	289	0	291	2	1	0

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
	L TR	LT R	L R	LTR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVE-MENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	1	1600	327	327	330	330	0.20 *	0.20 *	0.21 *	0.21 *
NBT	1	1600	295	296	300	301	0.184	0.185	0.188	0.188
NBR	0	0	0	0	0	0	-	-	-	-
SBL	0	0	0	0	0	0	-	-	-	-
SBT	1	1600	470	471	480	481	0.294 *	0.294 *	0.300 *	0.301 *
SBR	1	1600	222	234	232	244	0.14	0.15	0.15	0.15
EBL	0	0	279	299	289	309	-	-	-	-
EBT	1	1600	0	0	0	0	0.356 *	0.369 *	0.363 *	0.375 *
EBR	0	0	291	291	291	291	-	-	-	-
WBL	0	0	2	2	2	2	-	-	-	-
WBT	1	1600	1	1	1	1	0.002 *	0.002 *	0.002 *	0.002 *
WBR	0	0	0	0	0	0	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.856	0.869	0.871	0.884
					SCENARIO LEVEL OF SERVICE:		D	D	D	D

NOTES:

Printed: 12/17/19

REF: 11 AM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *NOVEMBER 5, 2019*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *BALCOM CANYON ROAD*

E/W STREET: *STATE ROUTE 118*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	0	0	0	107	0	52	47	884	0	0	836	57
(B) PROJECT-ADDED:	0	0	0	0	0	2	6	7	0	0	8	0
(C) CUMULATIVE:	0	0	0	107	0	52	47	914	0	0	868	57

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND L R	EAST BOUND L T	WEST BOUND TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	0	0	0	0	-	-	-	-
NBT	0	0	0	0	0	0	-	-	-	-
NBR	0	0	0	0	0	0	-	-	-	-
SBL	1	1600	107	107	107	107	0.067 *	0.067 *	0.067 *	0.067 *
SBT	0	0	0	0	0	0	-	-	-	-
SBR	1	1600	52	54	52	54	0.03	0.03	0.03	0.03
EBL	1	1600	47	53	47	53	0.03 *	0.03 *	0.03 *	0.03 *
EBT	1	1600	884	891	914	921	0.553	0.557	0.571	0.576
EBR	0	0	0	0	0	0	-	-	-	-
WBL	0	0	0	0	0	0	-	-	-	-
WBT	1	1600	836	844	868	876	0.558 *	0.563 *	0.578 *	0.583 *
WBR	0	0	57	57	57	57	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.654	0.663	0.674	0.683
					SCENARIO LEVEL OF SERVICE:		B	B	B	B

NOTES:

Printed: 12/17/19

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#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT REF: 11 PM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *NOVEMBER 5, 2019*

TIME PERIOD: *P.M. PEAK HOUR*

N/S STREET: *BALCOM CANYON ROAD*

E/W STREET: *STATE ROUTE 118*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A) EXISTING:	0	0	0	84	0	78	44	981	0	0	801	83
(B) PROJECT-ADDED:	0	0	0	0	0	7	4	15	0	0	25	0
(C) CUMULATIVE:	0	0	0	84	0	78	44	1030	0	0	847	83

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND L R	EAST BOUND L T	WEST BOUND TR

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVE-MENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	0	0	0	0	-	-	-	-
NBT	0	0	0	0	0	0	-	-	-	-
NBR	0	0	0	0	0	0	-	-	-	-
SBL	1	1600	84	84	84	84	0.053 *	0.053 *	0.053 *	0.053 *
SBT	0	0	0	0	0	0	-	-	-	-
SBR	1	1600	78	85	78	85	0.05	0.05	0.05	0.05
EBL	1	1600	44	48	44	48	0.03	0.03	0.03	0.03
EBT	1	1600	981	996	1030	1045	0.613 *	0.623 *	0.644 *	0.653 *
EBR	0	0	0	0	0	0	-	-	-	-
WBL	0	0	0	0	0	0	-	-	-	-
WBT	1	1600	801	826	847	872	0.553	0.568	0.581	0.597
WBR	0	0	83	83	83	83	-	-	-	-
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.666	0.676	0.697	0.706
					SCENARIO LEVEL OF SERVICE:		B	B	B	C

NOTES:

Printed: 12/17/19

REF: 12 AM

#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *NOVEMBER 5, 2019*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *GRIMES CANYON ROAD*

E/W STREET: *STATE ROUTE 118*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	0	0	0	64	0	110	64	909	0	0	822	22
(B) PROJECT-ADDED:	0	0	0	0	0	5	19	7	0	0	3	0
(C) CUMULATIVE:	0	0	0	64	0	110	64	939	0	0	854	22

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
		LR	L T	T R

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	0	0	0	0	-	-	-	-
NBT	0	0	0	0	0	0	-	-	-	-
NBR	0	0	0	0	0	0	-	-	-	-
SBL	0	0	64	64	64	64	-	-	-	-
SBT	1	1600	0	0	0	0	0.109 *	0.112 *	0.109 *	0.112 *
SBR	0	0	110	115	110	115	-	-	-	-
EBL	1	1600	64	83	64	83	0.04	0.05	0.04	0.05
EBT	1	1600	909	916	939	946	0.568 *	0.573 *	0.587 *	0.591 *
EBR	0	0	0	0	0	0	-	-	-	-
WBL	0	0	0	0	0	0	-	-	-	-
WBT	1	1600	822	825	854	857	0.514	0.516	0.534	0.536
WBR	1	1600	22	22	22	22	0.014	0.014	0.014	0.014
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.677	0.685	0.696	0.703
					SCENARIO LEVEL OF SERVICE:		B	B	B	B

NOTES:

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#19015 - SOMIS RANCH FARMWORHER HOUSING PROJECT

INTERSECTION CAPACITY UTILIZATION WORKSHEET

REF: 12 PM

COUNT DATE: *NOVEMBER 5, 2019*

TIME PERIOD: *P.M. PEAK HOUR*

N/S STREET: *GRIMES CANYON ROAD*

E/W STREET: *STATE ROUTE 118*

CONTROL TYPE: *SIGNAL*

TRAFFIC VOLUME SUMMARY

VOLUMES	NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A) EXISTING:	0	0	0	36	0	62	116	955	0	0	822	43
(B) PROJECT-ADDED:	0	0	0	0	0	19	11	4	0	0	6	0
(C) CUMULATIVE:	0	0	0	36	0	62	116	1004	0	0	883	43

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND
		LR	L T	T R

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	0	0	0	0	-	-	-	-
NBT	0	0	0	0	0	0	-	-	-	-
NBR	0	0	0	0	0	0	-	-	-	-
SBL	0	0	36	36	36	36	-	-	-	-
SBT	1	1600	0	0	0	0	0.061 *	0.073 *	0.061 *	0.073 *
SBR	0	0	62	81	62	81	-	-	-	-
EBL	1	1600	116	127	116	127	0.07	0.08	0.07	0.08
EBT	1	1600	955	959	1004	1008	0.597 *	0.599 *	0.628 *	0.630 *
EBR	0	0	0	0	0	0	-	-	-	-
WBL	0	0	0	0	0	0	-	-	-	-
WBT	1	1600	822	828	883	889	0.514	0.518	0.552	0.556
WBR	1	1600	43	43	43	43	0.027	0.027	0.027	0.027
					LOST TIME:		0.00	0.00	0.00	0.00
					TOTAL INTERSECTION CAPACITY UTILIZATION:		0.658	0.672	0.689	0.703
					SCENARIO LEVEL OF SERVICE:		B	B	B	B

NOTES:

Printed: 12/17/19

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PROJECT TRIP DISTRIBUTION SUMMARY

Exhibit "A"

JENSEN DESIGN & SURVEY, INC.

Delivering Excellence through Experience

1672 Donlon Street
Ventura, CA 93003
Phone: (805) 654-6977
www.jdscivil.com

PLA02.5893
November 25, 2019

Justin Bertoline
County of Ventura Planning Division
800 S. Victoria Avenue
Ventura, CA 93009

SUBJECT: SOMIS RANCH FARMWORKER HOUSING PROJECT (PL19-0046)
Detailed Farm/Agricultural Site Trip Distributions

Dear Mr. Bertoline,

In accordance with County staff comments and direction, we have prepared detailed trip distributions for within the three major farm and cropland travel areas as depicted in the September 24, 2019 *Revised Trip Distribution and Justification* memorandum and in Exhibit A attached hereto. These three major areas, along with the number of acres planted, are summarized below:

Highway 101 & Oxnard Plain	50,752 Acres	48.1%
Highway 118 West	28,805 Acres	27.3%
Highway 118 East	25,956 Acres	24.6%
TOTAL:	105,513 Acres	100.0%

The results of our detailed sub-analysis of each of these three areas is outlined below. These trip distribution findings, along with previous findings contained in the September 24, 2019 memorandum, serve as the basis of trip distribution to agricultural sites for the updated Traffic Study prepared by Associated Transportation Engineers (ATE).

Highway 101 & Oxnard Plain Area Trip Distribution (Exhibit B)

Subarea	Acreage	% of 101/Oxnard	% of County Total
Subarea 1 (South Lewis Rd.)	15,685 AC	30.9 %	14.9%

Subarea 2 (Pleasant Valley/Fifth Street)	13,669 AC	27.0%	13.0%
Subarea 3 (Highway 101)	21,397 AC	42.1%	20.3%
TOTAL	**50,752 AC**	**100.0%**	**48.1%**

Highway 118 West Travel Area Trip Distribution (Exhibit C)

Subarea	Acreage	% of 118 West	% of County Total
Subarea 1 (Las Posas Valley-West)	10,770 AC	37.4%	10.2%
Subarea 2 (Santa Clara Road)	762 AC	2.7%	0.7%
Subarea 3 (Heritage Valley-West)	17,271 AC	59.9%	16.4%
TOTAL	**28,805 AC**	**100.0%**	**27.3%**

Highway 118 East Travel Area Trip Distribution (Exhibit D)

Subarea	Acreage	% of 118 East	% of County Total
Subarea 1 (Las Posas Valley- East/Simi)	5,111 AC	19.7%	4.8%
Subarea 2 (Balcom Canyon Road)	4,955 AC	19.1%	4.7%
Subarea 3 (Grimes Canyon- Heritage Valley East)	15,889 AC	61.2%	15.0%
TOTAL	**25,956 AC**	**100.0%**	**24.6%**

As noted in the previous memorandum dated September 24, 2019 the dataset including the location, size in acres, and attributes (i.e. crop type and owner name of each operation) of

agricultural operations was sourced from GIS data. This GIS dataset was obtained from Ventura County Agricultural Commissioner's staff on June 20th, 2018.

Although Jensen Design & Survey staff divided the agricultural lands into three distinctive sub-areas for each travel area, it should be noted that the data and acreages provided by the Ventura County Agricultural Commissioner's office remained unchanged. The attributes for each property are associated with the parcel data and do not change based upon grouping their grouping into the three categories described above.

Should you have any further questions regarding our methodology, data, or any other items contained in this memorandum, please do not hesitate to contact us at (805) 654-6977 or by email at lisaw@jdscivil.com or tshelton@jdscivil.com.

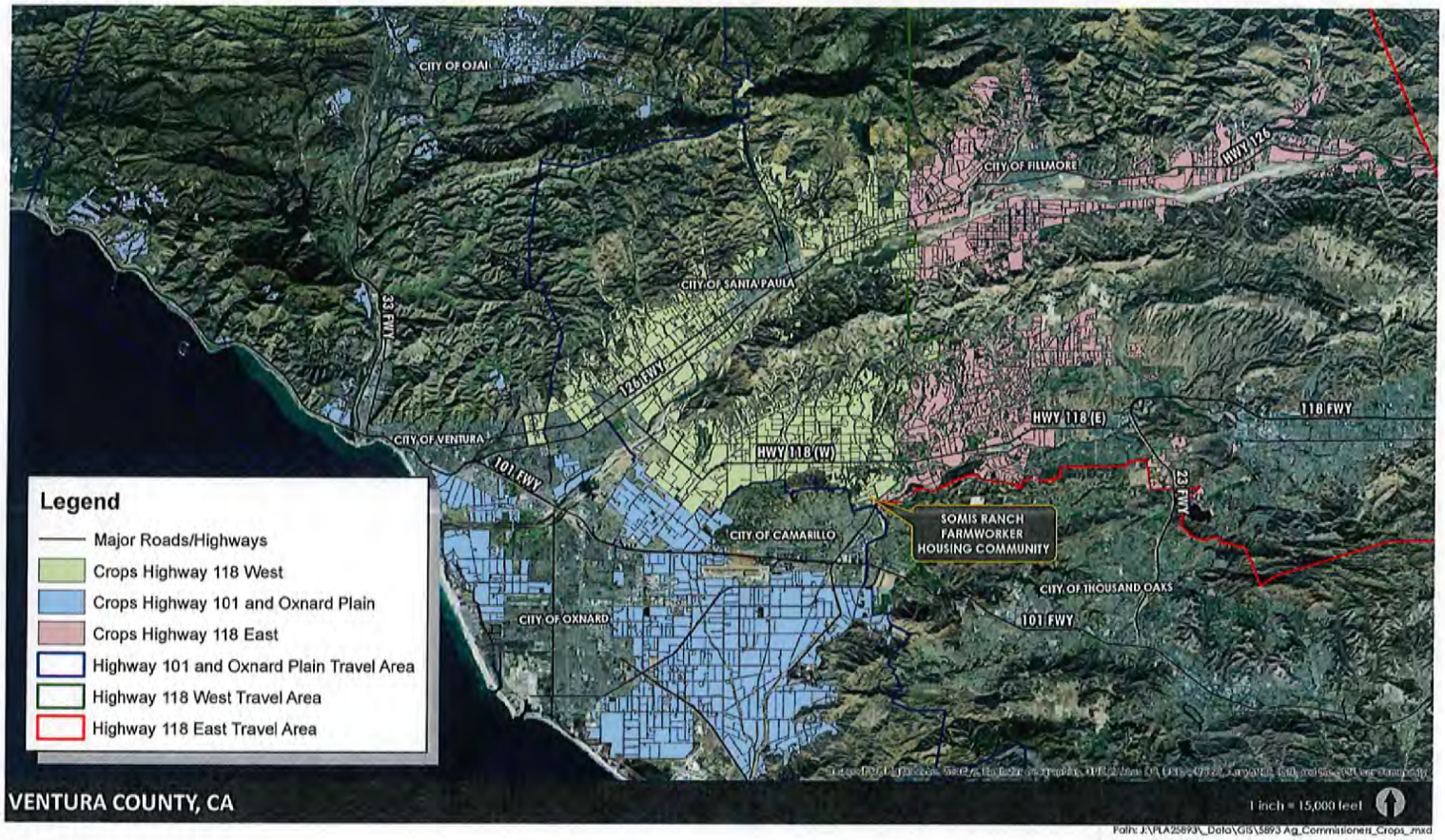
Respectfully Submitted,

Lisa Woodburn
Planning Manager

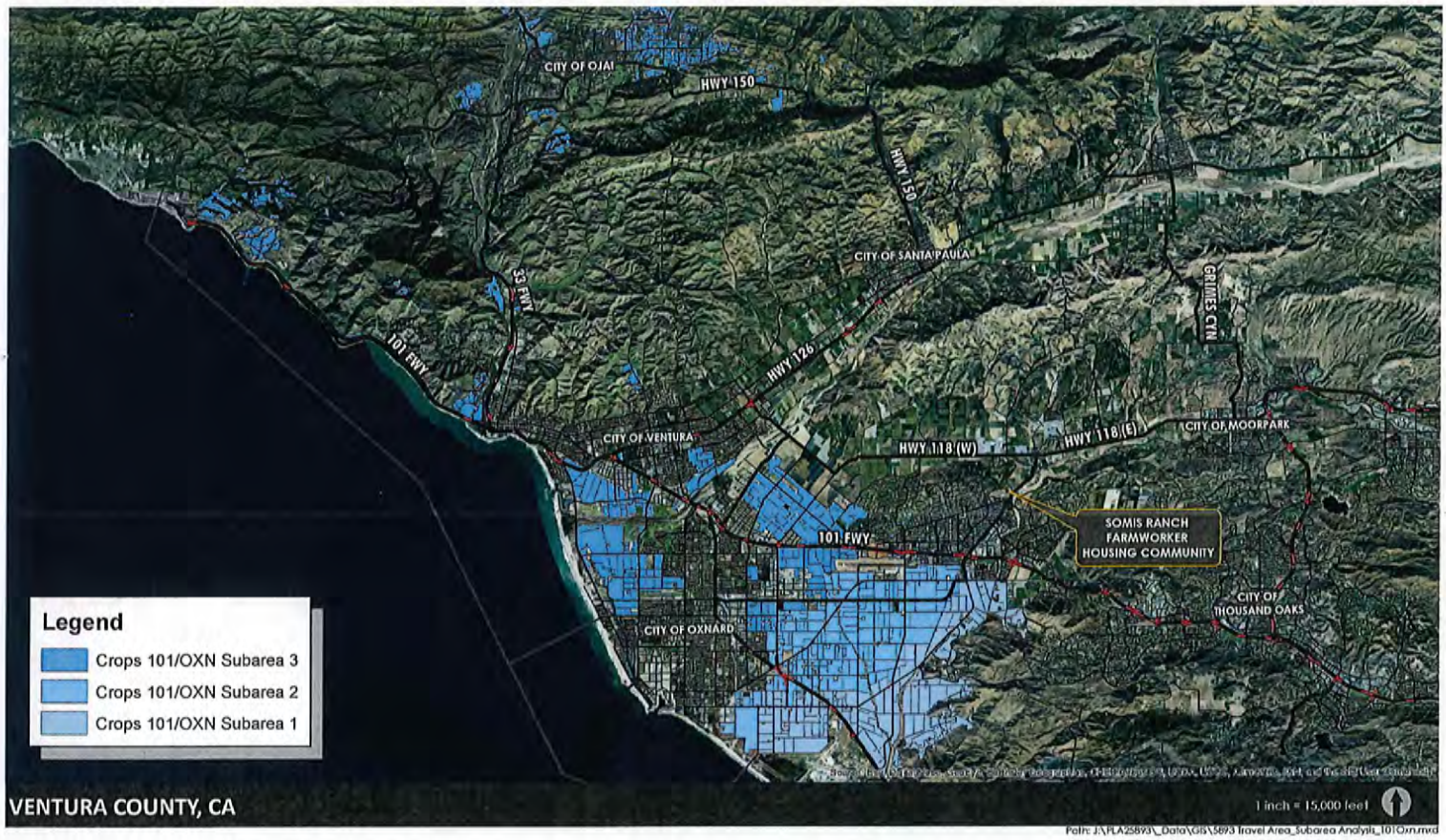
Tanner Shelton
Planner II

Encl: Attachment A: Somis Ranch Surrounding Farm Trip Distribution
Attachment B: Highway 101 & Oxnard Plain Trip Distribution
Attachment C: Highway 118 West Trip Distribution
Attachment D: Highway 118 East Trip Distribution

CC: Darryl Nelson, Associated Transportation Engineers
Bill Teller & Dave White Sr, Somis Ranch Partners LLC
Karen Flock, Homecomings, Inc.



SOMIS RANCH: SURROUNDING FARM TRIP DISTRIBUTION



Path: J:\PLA25893_Data\GIS\5893 Travel Area_Subarea Analysis_101Oxn.mxd

SOMIS RANCH: 101 FWY/OXNARD PLAIN TRIP DISTRIBUTION

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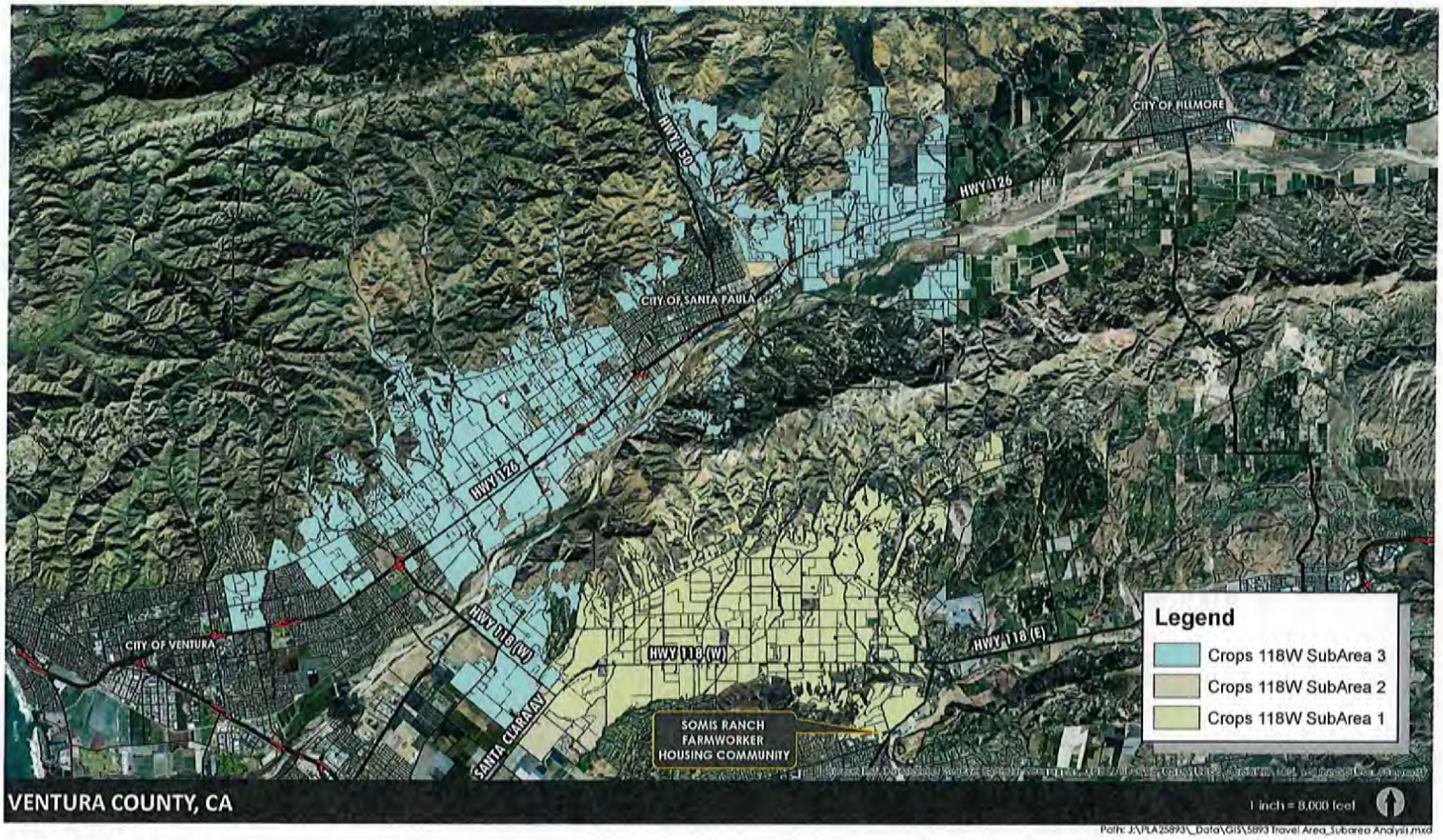
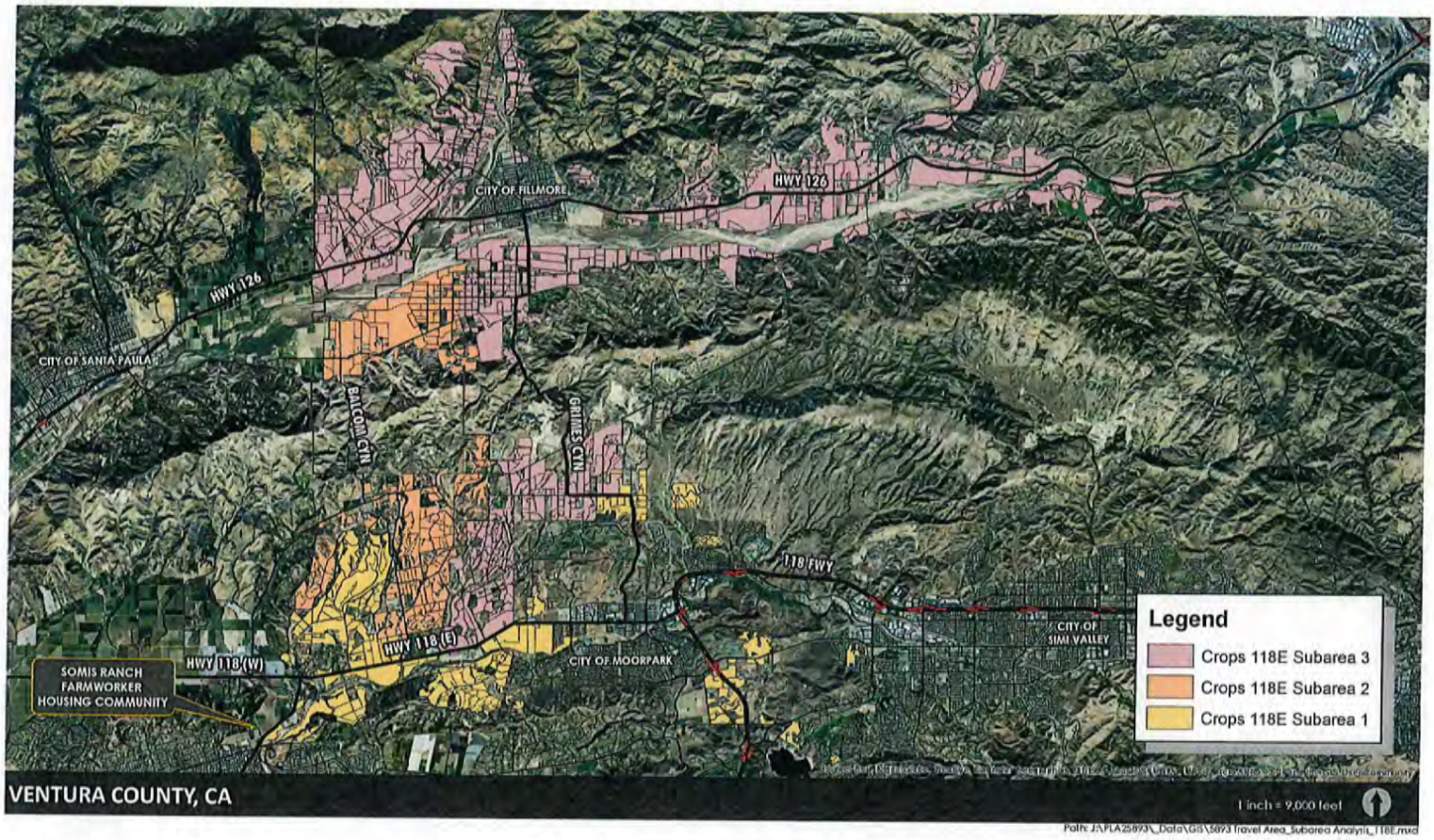


SOMIS RANCH: HIGHWAY 118 WEST TRIP DISTRIBUTION



Path: J:\PLA\5893_Data\GIS\5893 Travel Area_Subarea Analysis_118E.mxd

Parcel boundaries on this exhibit are a graphical representation only. They should not be used in place of record boundary information and/or field survey data and do not accurately define property boundaries.

JENSEN DESIGN & SURVEY, INC.

SOMIS RANCH: HIGHWAY 118 EAST TRIP DISTRIBUTION

SIGNAL WARRANTS

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

DIST ____ CO ____ RTE ____ PM ____

Major St: State Route 34
Minor St: Northern Driveway

Critical Approach Speed _____ mph
Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 40 mph..... ☑ or ☐ RURAL (R)
In built up area of isolated community of < 10,000 population..... ☐ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES ☐ NO ☐
(Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES ☐ NO ☑
80% SATISFIED YES ☐ NO ☑

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)			
	U	R	U	R
APPROACH LANES	(1)		2 or More	
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)

7-8	8-9	9-10	10-11	4-5	5-6	6-7	7-8	Hour
83	77	43	47	38	48	50	53	

350 Meets Min.

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES ☐ NO ☑
80% SATISFIED YES ☐ NO ☑

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)			
	U	R	U	R
APPROACH LANES	(1)		2 or More	
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)

7-8	8-9	9-10	10-11	4-5	5-6	6-7	7-8	Hour
83	77	43	47	38	48	50	53	

525 Meets Min.

Combination of Conditions A & B SATISFIED YES ☐ NO ☑

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		Yes ☐ No ☑
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes ☐ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)

State Route 84
Northern Driveway

WARRANT 2 - Four Hour Vehicular Volume **SATISFIED* YES ☐ NO ☑**

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	7-8	8-9	4-5	7-8 Hour
Both Approaches - Major Street	✓					
Higher Approach - Minor Street	✓		83	77	50	53

* 60 is minimum volume

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☐
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☐ No ☑

WARRANT 3 - Peak Hour **SATISFIED YES ☐ NO ☐**
(Part A or Part B must be satisfied)

PART A **SATISFIED YES ☐ NO ☐**
(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☐ No ☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☐ No ☐

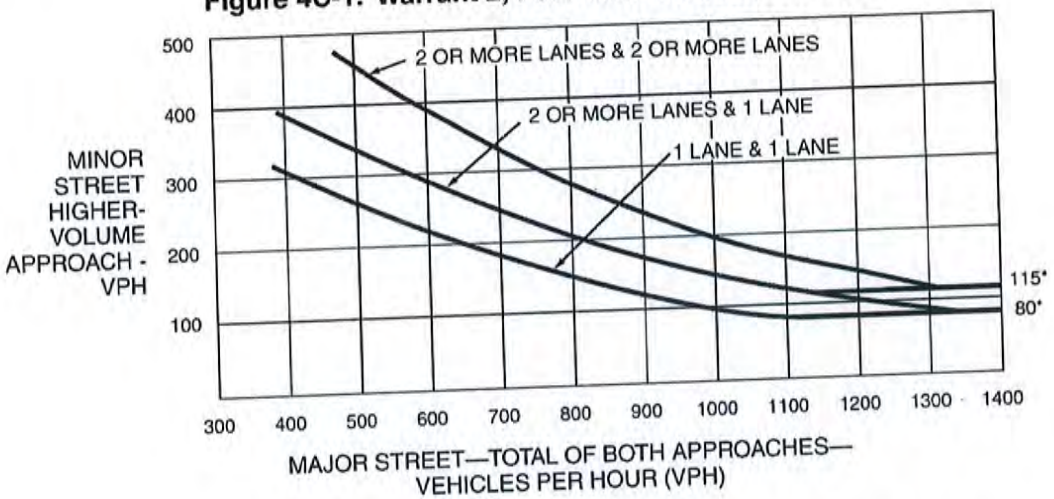
PART B **SATISFIED YES ☐ NO ☐**

APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street			
Higher Approach - Minor Street			

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☐
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☐ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume

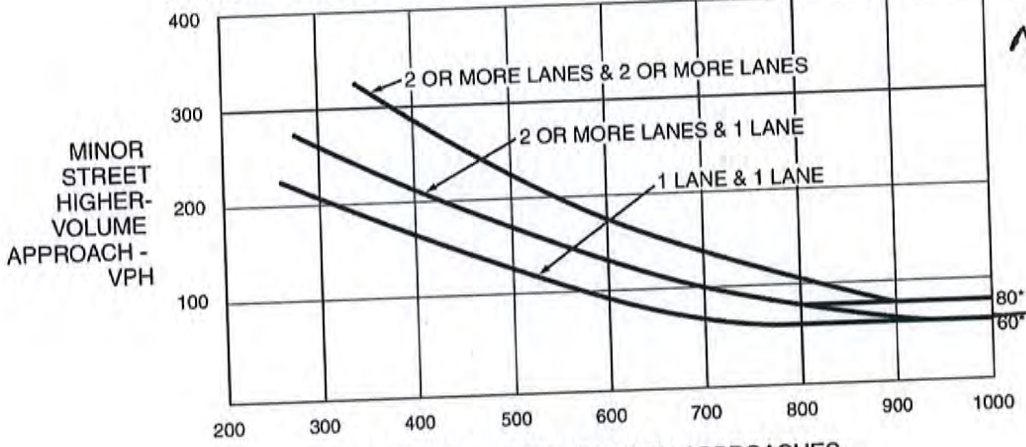


*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

State Route 34
Northern Driveway



83
77
53
50

*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

DIST ____ CO ____ RTE ____ PM ____

Major St: State Route 34 Critical Approach Speed _____ mph
Minor St: Northern Drives Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 40 mph..... ☑ or ☐ } RURAL (R)

In built up area of isolated community of < 10,000 population..... ☐ URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

URBAN..... RURAL..... ✓	Minimum Requirements EADT	
CONDITION A - Minimum Vehicular Volume Satisfied _____ Not Satisfied ✓	Vehicles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Number of lanes for moving traffic on each approach Major Street / Minor Street 1..... / 1..... 2 or More..... / 1..... 2 or More..... / 2 or More..... 1..... / 2 or More.....	Urban / Rural 8,000 / ~~5,600~~ 9,600 / 6,720 9,600 / 6,720 8,000 / 5,600	Urban / Rural 2,400 / ~~1,680~~ 2,400 / 1,680 3,200 / 2,240 3,200 / 2,240
CONDITION B - Interruption of Continuous Traffic Satisfied _____ Not Satisfied ✓	Vehicles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Number of lanes for moving traffic on each approach Major Street / Minor Street 1..... / 1..... 2 or More..... / 1..... 2 or More..... / 2 or More..... 1..... / 2 or More.....	Urban / Rural 12,000 / ~~8,400~~ 14,400 / 10,080 14,400 / 10,080 12,000 / 8,400	Urban / Rural 1,200 / ~~850~~ 1,200 / 850 1,600 / 1,120 1,600 / 1,120
Combination of CONDITIONS A + B Satisfied _____ Not Satisfied _____ No one condition satisfied, but following conditions fulfilled 80% or more..... A _____ B _____	2 CONDITIONS 80%	2 CONDITIONS 80%

686 ADT

686 ADT

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

DIST ____ CO ____ RTE ____ PM ____

Major St: State Route 34
Minor St: Southern Driveway

Critical Approach Speed _____ mph
Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 40 mph..... ☑
In built up area of isolated community of < 10,000 population..... ☐ } RURAL (R)
☐ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES ☐ NO ☐
(Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES ☐ NO ☑
80% SATISFIED YES ☐ NO ☑

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)			
	U	R	U	R
APPROACH LANES	1		2 or More	
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)

7-8	8-9	9-10	10-11	4-5	5-6	6-7	7-8	Hour
76	72	31	34	28	34	36	38	350 Meets Min.

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES ☐ NO ☑
80% SATISFIED YES ☐ NO ☑

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)			
	U	R	U	R
APPROACH LANES	1		2 or More	
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)

7-8	8-9	9-10	10-11	4-5	5-6	6-7	7-8	Hour
76	72	31	34	28	34	36	38	525 Meets Min.

Combination of Conditions A & B SATISFIED YES ☐ NO ☑

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		Yes ☐ No ☑
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes ☐ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)

State Route 34
Southern Driveway

WARRANT 2 - Four Hour Vehicular Volume **SATISFIED* YES ☐ NO ☑**

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	4:00	5:00	6:00	7:00	Hour
Both Approaches - Major Street	✓						
Higher Approach - Minor Street	✓		76	72	36	30	

* 60 is minimum volume

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☐
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☐ No ☑

WARRANT 3 - Peak Hour **SATISFIED YES ☐ NO ☐**
(Part A or Part B must be satisfied)

PART A **SATISFIED YES ☐ NO ☐**

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☐ No ☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☐ No ☐

PART B **SATISFIED YES ☐ NO ☐**

APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street			
Higher Approach - Minor Street			

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☐
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☐ No ☐

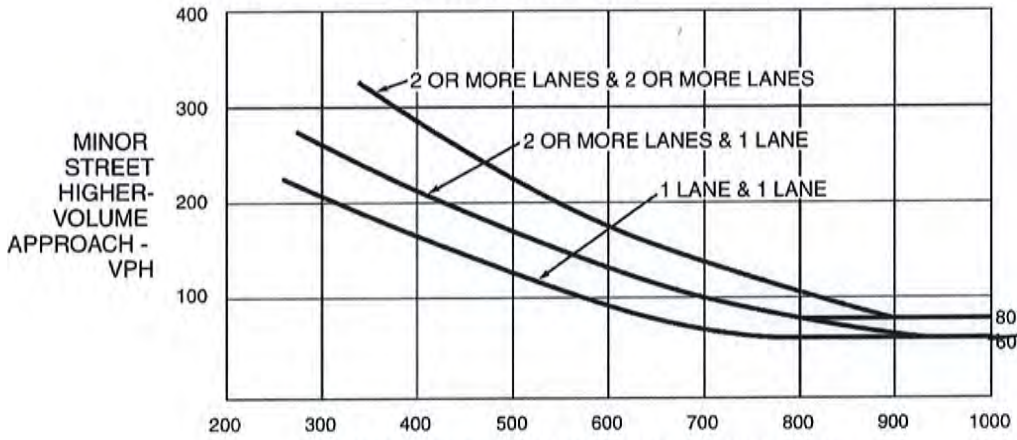
The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume

*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

COUNT DATE _____
CALC _____ DATE _____
CHK _____ DATE _____

_____ _____ _____ _____
DIST CO RTE PM

Major St: State Route 34
Minor St: Southern Driveway

Critical Approach Speed _____ mph
Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 40 mph..... ☑ or ☐ **RURAL (R)**
In built up area of isolated community of < 10,000 population..... ☐ **URBAN (U)**

(Based on Estimated Average Daily Traffic - See Note)

URBAN..... RURAL.....	Minimum Requirements EADT	
CONDITION A - Minimum Vehicular Volume Satisfied _____ Not Satisfied ✓	Vehicles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Number of lanes for moving traffic on each approach Major Street / Minor Street	Urban / Rural	Urban / Rural
1..... / 1.....	8,000 / 5,600	2,400 / 1,680
2 or More..... / 1.....	9,600 / 6,720	2,400 / 1,680
2 or More..... / 2 or More.....	9,600 / 6,720	3,200 / 2,240
1..... / 2 or More.....	8,000 / 5,600	3,200 / 2,240
CONDITION B - Interruption of Continuous Traffic Satisfied _____ Not Satisfied ✓	Vehicles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Number of lanes for moving traffic on each approach Major Street / Minor Street	Urban / Rural	Urban / Rural
1..... / 1.....	12,000 / 8,400	1,200 / 850
2 or More..... / 1.....	14,400 / 10,080	1,200 / 850
2 or More..... / 2 or More.....	14,400 / 10,080	1,600 / 1,120
1..... / 2 or More.....	12,000 / 8,400	1,600 / 1,120
Combination of CONDITIONS A + B Satisfied _____ Not Satisfied _____ No one condition satisfied, but following conditions fulfilled 80% or more..... _____ A _____ B	2 CONDITIONS 80%	2 CONDITIONS 80%

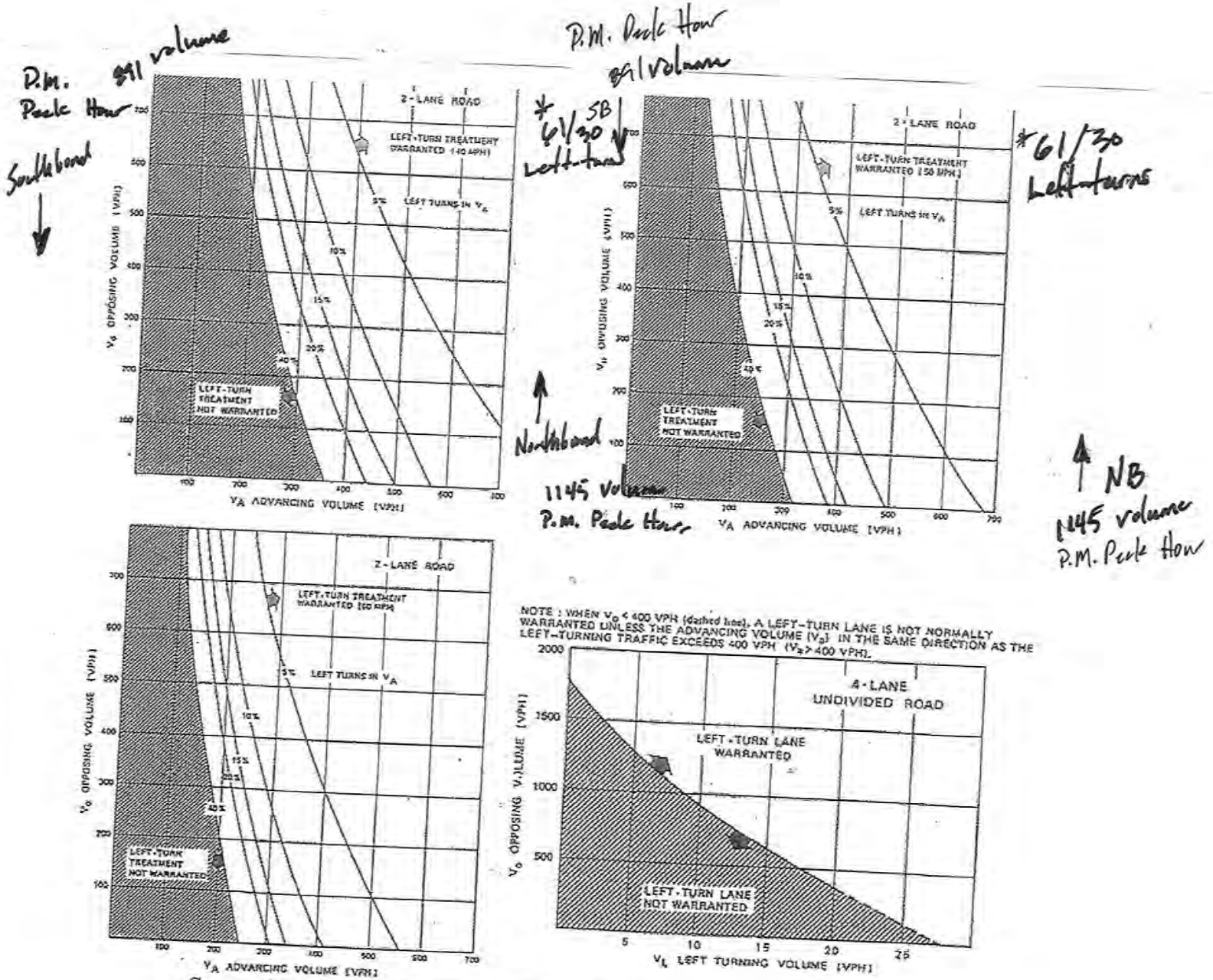
633 AD

633 ADT

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

LEFT-TURN WARRANT GRAPH



Source: Neuman, T., *Intersection Channelization Design Guide, NCHRP Report 279*. Copyright, National Academy of Sciences, Washington, D.C., 1985.

Figure 3. *NCHRP Report 279* (*10*) left-turn lane guidelines, 1985.

VENTURA COUNTY AND CITY OF CAMARILLO DEVELOPMENT ACTIVITY LISTS

Permit Number	Parcel Number	Address	Permit Type	Status	Permit Description	Case Planner	Applicant
PL15-0005	7000070375		Parcel Map	Prep for Hearing	The applicant requests approval of a CCC-PM (No. 5949) and a Coastal PD Permit (Case No. PL15-0005) in order to bring an existing 19.16 acre lot into compliance with the Subdivision Map Act and the VCSO. As stated in Section A.8 of this staff report (above), in 1980, Malibu 65 Investment Co., the property owner at that time, conveyed the subject property to the applicant. The subdivision required the approval and recordation of tentative and parcel maps pursuant to the Subdivision Map Act; however, the Malibu 65 Investment Co. did not obtain approval of, or record, the requisite tentative and parcel maps for the subdivision. Therefore, the applicant is requesting approval of a CCC-PM and a Coastal PD Permit in order to bring the subject property into compliance with the Subdivision Map Act and the VCSO. The proposed project does not include any grading or construction of the subject property. The subject property currently is not developed with buildings or structures. However, the property has been cleared of Environmentally Sensitive Habitat Areas (ESHA) (Ventura County CZO, § 8172-1), most recently in 2015 as part of unpermitted clearing of vegetation that the current property owner conducted. The unpermitted vegetation clearance that occurred in 2015 is the subject of Planning Violation Case No. PV15-0027, and will be abated by the property owner's restoration and permanent protection of onsite ESHA and/or preservation of equivalent ESHA off-site. The subject property currently does not have a water source or source of sewage disposal for development of the property. An existing, onsite dirt driveway/road to Pacific Coast Highway currently provides access to the subject property	Jennifer Welch; (805) 654-2465	Lynn Heacox 209 Avenida San Pablo San Clemente, CA 92672 714-766-6525
PL15-0014	1630010795	3100 SOMIS RD, CAMARILLO, CA 93012	General Plan Amendment	Environmental Doc Prep	Major Modification for Development Plan DP-244-1 (Case No. PL15-0014) for the continued use, operation and expansion of a wholesale lumber yard located at 3100 Somis Road, Somis, California. The project site includes Tax Assessor Parcels 163-0-010-795 and 163-0-010-850, totaling 46.4 acres. Between 1992 and 2005, the Applicant incrementally imported fill and paved on an 11.5 acre area on Tax Assessor Parcel 163-0-010-795 outside the approved DP 244-1 permit boundary and without the required County permits and approvals. The Applicant also constructed a 6,000 square foot steel frame canopy shed on Tax Assessor Parcel 163-0-010-795 without the required County permits and approvals. The project consists of the following: (1) General Plan Amendment (GPA) to change the land use designation for an approximately 10.6 acre area on Tax Assessor Parcel 163 0 010 795 from Agricultural (40 acre minimum) to Existing Community and Rezone the same acreage from Agricultural Exclusive (AE 40) to Limited Industrial (M2); (2) Expansion of DP 244 1 permit boundary from 7.63 acres to 18.9 acres gross and 16.2 acres net; (3) Entitlement of approximately 15,811 cubic yards of imported, crushed asphalt fill installed on Tax Assessor Parcel 163-0-010-795 without the required County permits or approvals; (4) Entitlement of a 6,000 square foot steel frame canopy shed with a height of 22 feet from adjacent grade and constructed without the required County permits or approvals; (5) Construction of a 94 foot wide by 340 foot long storm water detention basin. Area to be graded is approximately 31,960 square feet with 7,440 cubic yards of cut. Salvageable (soil) cut material would be used to supplement fill for proposed landscape screening. Surface asphalt and compacted base will be exported to an approved land fill as necessary; (6) Construction of a new on-site waste water treatment system, to replace the existing undersized system. The new system will consist of a 2,000 gallon septic tank and two 30 feet deep seepage pits. The existing 1,500 gallon tank will be removed and replaced with the new 2,000 gallon tank. The new seepage pits will be constructed as shown on the site plan. The existing seepage pit will be abandoned in place. (7) Reconfiguration of the 57 existing parking spaces to 61 spaces including two designated carpool and two handicapped parking spaces and a bicycle rack as shown on the site plan; (8) Designation of 16 new truck loading parking spaces; (9) Installation of additional landscaping as shown on the preliminary landscape plan totaling approximately (35,284 s.f.) or 5% of the net permit area after installation. (10) Entitlement of one existing 30 ft high light pole located within the original DP permit in the lumber storage area approximately 180 ft south of the northern property line and 680 ft east of the western property line; (11) Establishment of a 30-foot "Perimeter Access and Fuel Modification Zone" providing clearance from all grass and brush from combustible material within the project site; (12) Entitlement of a 6 foot high chain link fence topped with three strands of barbed wire around the perimeter of the expanded planned development permit area for security reasons.	John Oquendo;	Ralph Hagle P.O. Box 120 Somis, CA 93066-0120 (805) 987-3887

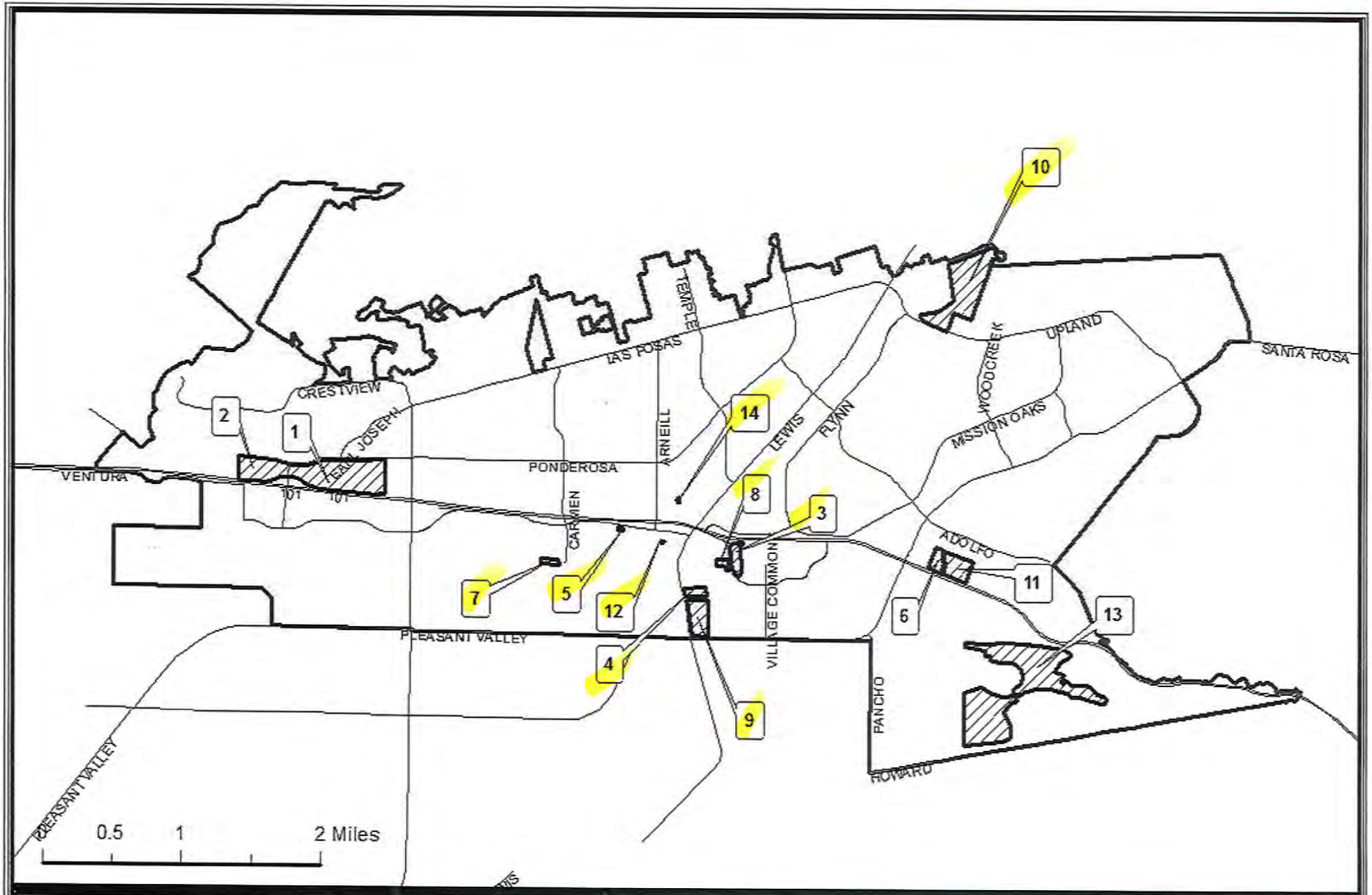
7-81

Permit Number	Parcel Number	Address	Permit Type	Status	Permit Description	Case Planner	Applicant
18-0081	5110190225	10851 W LOS ANGELES AV, MOORPARK, CA 93021	Minor Modification	Prep for Hearing	The applicant (Peach Hills Soils) requests that a modified Conditional Use Permit (CUP) be granted to authorize the continued operation of an Organics Processing Operation (composting, chipping, grinding, soil amendment and mulching operations with sales of incidental landscape materials). The request also includes expansion of the facility stock pile area and addition of a vermiculture operations and area. The request includes: 1) Increase the existing CUP (CUP 5319) boundary by 17.2 acres from a total of 26.94 acres to a total of 44.14 acres. The additional CUP area will include a 17.2-acre area east of the existing CUP boundary for the manufacturing and storage of compost and soil amendments. 2) Modify the hours of operation for the facility. The proposed hours of operation are Monday through Friday, between 7:00 a.m. to 4:30 p.m., Saturday 7:00 a.m. to 2:00 p.m., and closed on Sunday. With improvements to the SR 118/SR 34 intersection and Donlon Road intersection improvements, truck deliveries are proposed to be unrestricted during hours of operation. 3) Increase the number of employees on-site from 4 to 7, and increase the average daily trips to/from the project site from approximately 88 per day to approximately 128 per day (Condition 6). 4) Install water service infrastructure to meet Ventura County Fire Department fire flow requirements. This includes correcting the description of the 18,000 existing water tank to a 30,000 gallon water tank and installing three new 20,000 gallon water tanks. 5) Install a 4-inch water service line from an existing 2-inch water meter, including installing underground, per approved UPRR pipeline crossing agreement, to serve on-site water storage tanks, on-site water trucks, and dust control. 6) Proposed new use of vermiculture on-site which includes installation of an approximately 10,000–square-foot hoop house to cover the worm beds. Proposed Engineered Site Plan and Drainage Plan. Worm beds are proposed to be located at a minimum of 300 feet distance from a residence, nearby property, or public facility, 100 feet from the property line, any surface water, and 200 feet from the existing on-site well, as required per Section 8107-36.4.4. All other operational components and the on-site equipment described in CUP 5319 and the LEA Notification Tier Permit would remain unchanged. No additional buildings are proposed, though a new vermiculture bed will be added that will utilize temporary hoop structures for shade and protection from the environment. Existing water is provided by an offsite fire hydrant (across Los Angeles Avenue). The hydrant is metered through an agreement with Ventura County Waterworks District 1. As there are no domestic water connections on the property no domestic waste water is produced. ALL OF THE SUPPORTING DOCUMENTS SUBMITTED WITH THE APPLICATION ARE DOWNLOADED IN THE DOCUMENT TAB UNDER ACCELA RECORD PL18-0081; INCLUDING THE INITIAL STUDY AND THE MITIGATED NEGATIVE DECLARATION.	Becky Linder; (805) 654-2469	Robert Medrano Po Box 158 Moorpark, CA 93021 805-529-6164
18-0086	1630180055		Land Conservation Act	Submittal In Progress	10-year Open Space Wildlife Habitat LCA Contract for Fitzgerald Ranches. This contract is for Lot 25, 53.04 acres, of the Fitzgerald Ranches APN 163-0-180-055)	Justin Bertoline;	Fitzgerald Ranch Po Box 1473 Camarillo, CA 93011-1473 805-469-9779
18-0087	6490030180	645 BOX CANYON RD, CANOGA PARK, CA 91304	Conditional Use Permit	Environmental Doc Prep	AT&T new wireless communication facility.	Thomas Chaffee; (805) 654-2406	Jacob Finney 630 Grand Ave # 101 Santa Ana, CA 92705 949-702-0586
18-0088	0030250450	16011 MOUNTAIN LILAC TR, FRAZIER PARK, CA 93225	Conditional Use Permit	Environmental Doc Prep	Conditional Use Permit for construction of a new unmanned wireless communication facility at 16011 Mountain Lilac Trail in Lockwood Valley. Operator-AT&T, Site number-CSL05969. Facility consists of 12 antennas mounted on individual 15' poles (popsicle sticks). One separate 800 sq.ft. lease area with a 137 sq.ft. masonry shelter with two battery racks, two power plants, three equipment racks, equipment panel and a GPS antenna. The lease area will be enclosed with an 8' chainlink fence. The antennas will be located 234' from the lease area with connecting underground fiber/power/coax cables in a 3' wide trench. No water service provided.	Thomas Chaffee; (805) 654-2406	Jacob Finney 630 Grand Ave #101 Santa Ana, CA 92705 (805) 702-0586

T-82

Permit Number	Parcel Number	Address	Permit Type	Status	Permit Description	Case Planner	Applicant
PL18-0107	2300062325	2034 E FIFTH ST, CAMARILLO, CA 93012	Minor Modification	Environmental Doc Prep	Minor modification to CUP LU05-141 to increase number of event from 60 to 90 events per calendar year.. PL17-0026 was approved for the following: The Project is a Minor Modification to CUP LU05-0141 to authorize the continued operation of McCormick Home Ranch for an additional 10-year period. McCormick Home Ranch provides a venue for temporary outdoor events, including, but not limited to, weddings, quinceañeras, bar mitzvahs, fundraisers, retirement celebrations, anniversary parties, and corporate events. Temporary outdoor events will be limited to 250 guests for a maximum of 60 days within the calendar year and will be held primarily on weekends and holidays. Each event host will have use of the property beginning at 9:00 a.m. the day of the event and ending at midnight; however, no music will be played after 11:00 p.m. Deliveries for events will occur between 8:00 a.m. and 5:00 p.m., will not exceed 10 deliveries per month, and are not included as part of the 60 days per calendar year event maximum. Events will take place in the developed area of the parcel surrounding the existing structures; more specifically, events will be located in the northern portion of the parcel in the front of the property and in-between the existing residence and barn. A 400-square foot dressing room structure that does not contain any plumbing will be used as a dressing room, and a 1,000-square foot barn structure (North Barn # 2) will be used for the storage of the property owner's event furniture, equipment, and supplies (i.e. tables, chairs, dance floor, linens, arbors, heaters, umbrellas, and signs). The property owner will set up for events the day before or day of the event, and will break down and clean the site on the next available day. All existing structures on the project site will remain, and no new permanent structures will be constructed for the proposed temporary outdoor events. An existing single-family dwelling and barn (South Barn #1), located on the subject property, will be restricted to the owner's use and will not be leased out (Exhibit 3). All food on site will be provided by self-sufficient, licensed catering services. Dishes, flatware, and glasses will be provided by the caterer or delivered by a rental company. Six to eight portable restrooms and portable pump sinks will be provided; permanent restrooms and well water will not be used for events. Trash will be collected into a dumpster and removed from the site weekly. An unpaved parking area on an approximately 70 feet x 700 feet (approximately 49,000 square foot) strip along the westerly property line will accommodate up to 125 vehicles. Lighting will be provided by lights attached to existing structures and near the trash area, landscape lights, and pole lights along the parking strip. The site entrance to the project site is marked with an existing lamp post and sign showing the property owner's name and site address, and arrows will direct guests to the parking area (see final conditions of approval, Condition No. 1, for the table with the existing structures for temporary outdoor event use onsite).	Sarah McGurk; 805-654-3136	Mccormick J D Jr Test Tr Est 2034 E Fifth St Camarillo, CA 93012 (805) 482-1549
PL18-0109	5030060145	5500 GRIMES CANYON RD, MOORPARK, CA 93021	Conditional Use Permit	Awaiting Resubmittal	The applicant requests a Conditional Use Permit for a new dog kennel and sales facility on an approx. 20 acre lot in the Agricultural Exclusive zone, When fully constructed, the proposed project will include areas for breeding, selling and housing 300 dogs/puppies. The existing residence on the lot will remain and the existing garage will be converted into a sales office for the proposed kennel. The existing caretaker dwelling will be demolished and areas of existing farmland will be removed for/covered by the proposed kennel and sales facility. The proposed kennel and sales facility will be constructed in five phases and includes seven kennel buildings, an administration building, the aforementioned sales office, sales patio, shade trellis, guest seating area, pergola/gazebo, play pens for dogs and people, and parking. In addition, the proposed project includes a new septic system, storm water management system, animal waste treatment system, landscaping and irrigation, hardscaping, and electrical services. The proposed project will require 5,800 cubic yards of cut and 4,900 cubic yards of fill. Additional road grading will be required for the project. No export or import of materials will be required. Domestic water to the existing residence is provided by the Ventura County (VC) Water and Sanitation Department. VC Water and Sanitation Department states that the subject property is within the boundaries of the VC Waterworks District No. 1 for water service. Any existing water facilities required to be upgraded or replaced to service a new connection on the subject property must be completed prior to installation of a new meter. The applicant must comply with the VC Waterworks District Rules and Regulations for water service. An onsite water well provides irrigation water for the existing orchard which will remain.	Chuck Anthony; (805) 654-3683	Tim Hoke 12085 Clinton Street Moorpark, CA 93021 805-532-2216

T-82



Updated on 4-18-19

Department of
Community Development

City of Camarillo

City of Camarillo
Residential Projects

RESIDENTIAL PROJECTS

MAP ID	CASE	DEVELOPER	LOCATION	APN / ACREAGE	DESCRIPTION	UNITS BUILT	TOTAL UNITS	STATUS	PLANNER	APPROVAL DATE	EXPIRATION DATE
2	RPD-195 / TT-5671M(3)	Ran Rancho Dennis Hardgrave 211 Village Commons Bl, Ste 15 Camarillo, CA 93012 (805) 484-8303	Northwest corner of US 101 and Springville Dr (Springville)	157-0-020-210 / 185 22.87 acres	Single family	0	158	Pending (GPA)	J. Lee	n/a	n/a
3	CUP-307M(2)	Hiji Investment Co Dennis Hardgrave 211 Village Commons Bl, Ste 15 Camarillo, CA 93012 (805) 484-8303	Between Village at the Park Dr and Westpark Ct (Village at the Park)	157-0-020-195 3.21 acres	Mixed use rental ?	0	10	Pending	J. Lee	n/a	n/a
4	RPD-188	Aldersgate Inv, LLC Park West Townhomes Matt Mansi 300 E. Esplanade Dr. Ste 1550 Oxnard, CA 93036 (805) 988-4114	350 Lewis Road, northeast of Lewis Road and Mike Loza Dr (Village Gateway Townhomes)	229-0-070-210 7.8 acres	Condominiums (includes 9 moderate income units)	0	87	Under Construction	M. D'Anna	11/7/2014	n/a
5	CUP-330	Aldersgate Inv, LLC Cedar Oak Jordan Marshall 300 E. Esplanade Dr, Suite 1550 Oxnard, CA 93036 (805) 988-4114	2024 Ventura Blvd between Cedar Drive and Oak Street	162-0-104-010, 162-0-135-050 & -060 0.59 acres	Mixed-Use rentals (1 low and 22 moderate income units)	0	23	Under Construction	D. Moe	11/5/2013	n/a
6	TT-5956 RPD-194	Comstock Homes Teso Robles Townhomes Harriet Rapista 2301 Rosecrans Avenue #1150 El Segundo, CA 90245 (310) 546-5781	North side of Hwy 101 between Camino Ruiz and Verdugo Way	160-0-091-055 / 065 / 105 / 125 8.66 acres	Townhomes (includes 13 moderate income units)	89	129	Under Construction	C. Torres	04/7/2015 - RPD & 8/26/2015 - Tract	n/a
7	LD-537 RPD-199	Jim Sandefer 5450 Ralston St Ventura, CA 93003 (805) 207-4894	Southerly terminus of Barcelona Street	162-0-200-015 3 acres	4 single family lots	0	4	Pending	C. Torres	n/a	n/a

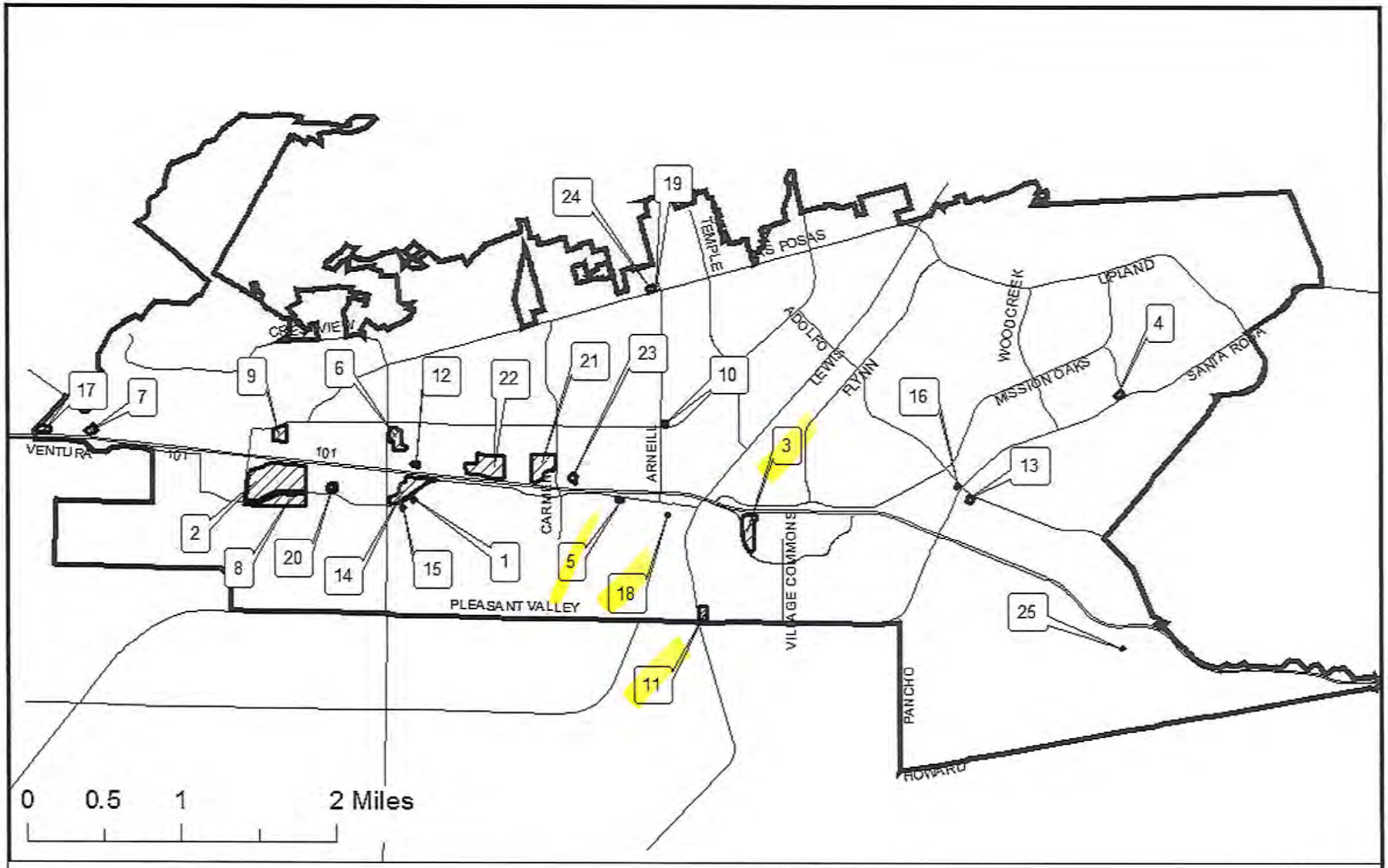
RESIDENTIAL PROJECTS

MAP ID	CASE	DEVELOPER	LOCATION	APN / ACREAGE	DESCRIPTION	UNITS BUILT	TOTAL UNITS	STATUS	PLANNER	APPROVAL DATE	EXPIRATION DATE
8	RPD-189M(2)	Hiji Investment Co Dennis Hardgrave 211 Village Commons Bl, Ste 15 Camarillo, CA 93012 (805) 484-8303	West of Village at the Park Dr between Petit Street and Westpark Court (Village at the Park)	229-0-320-085, 095, 105 4.63 acres	Rental units	0	96	Approved	Senior Planner	9/19/2017	9/19/2019
9	TT-5969 RPD-196	Camarillo Village Homes, LLC Gerald J. Marcil 43D Malaga Cove Plaza Palos Verdes Estates, CA 90274 (310) 791-2000	Northeast corner of Pleasant Valley and Lewis Road	229-0-070-240 19.88 acres	Townhomes (includes 29 moderate income units)	0	285	Approved	Senior Planner	9/20/2016	RPD-196 - 9/20/2019 TT-5969 - 8/24/2019
9	CUP-369	Camarillo Village Homes, LLC Gerald J. Marcil 43D Malaga Cove Plaza Palos Verdes Estates, CA 90274 (310) 791-2000	Northeast corner of Pleasant Valley and Lewis Road	229-0-070-240 3.44 acres	Mixed Use Commercial and rental units (3 low income)	0	24	Approved	Senior Planner	9/20/2016	9/20/2019
10	TT-5976 RPD-198	Shea Homes Kevin Harbison 2 Ada, Suite 200 Irvine, CA 92618 (310) 926-6363	Northeast corner of Somis and Upland Roads	163-0-017-275 and -185 83.1 acres	281 Senior Single-family, Cluster, and Townhome units	0	281	Approved	M. D'Anna	2/6/2018	TT-5976 10/25/2019 RPD-198 2/6/20
11	RPD-201	Camino Ruiz, LLC and ZDI, Inc. 16509 Saticoy Street Van Nuys, CA 91406 (310) 392-7899	Southeast corner of Camino Ruiz and Verdugo Way	160-0-093-195 13.79 acres of an overall 19.98-acre site	Rental apartments, mix of studio, one- and two-bedroom units	0	386	Pending (GPA)	D. Moe	n/a	n/a
12	RPD-202	Lustra Development, Inc Rick Town 99 South Glenn Street Camarillo, CA 93010 (818) 661-8931	Southeast corner of Glenn Drive and Chapel Drive	162-0-160-400 162-0-160-180 .34 acres	Rental town homes	0	6	Pending	C. Torres	n/a	n/a

RESIDENTIAL PROJECTS

MAP ID	CASE	DEVELOPER	LOCATION	APN / ACREAGE	DESCRIPTION	UNITS BUILT	TOTAL UNITS	STATUS	PLANNER	APPROVAL DATE	EXPIRATION DATE
12	CUP-391	Lustra Development, Inc Rick Town 99 South Glenn Street Camarillo, CA 93010 (818) 661-8931	99 South Glenn Drive	162-0-154-110 162-0-154-120 .24 acres	Mixed use, 12 apartments, 2 retail spaces	0	12	Pending	C. Torres	n/a	n/a
13	TT-6016	NUWI Camarillo, LLC Jason Han 1733 Ocean Avenue, Suite 350 Santa Monica, CA 90401 (310) 864-2427	791 Camarillo Spring Road	234-0-040-595 182 acres	300 Senior for-sale unts	0	300	Pending (GPA)	J. Lee	n/a	n/a
14	LD-544/RPD-203	Habitat for Humanity Darcy Taylor 1850 Eastman Avenue Oxnard, CA 93030 (805) 485-6065 x105	2521 Barry Street	162-0-014-120 8,012 s.f.	2 low-income units	0	2	Approved	O. Buck	11/20/2018	RPD-203 - 11/20/19 LD-544 - 11/20/20

MAP ID	GPA	DEVELOPER	UNITS	LOCATION	DESCRIPTION
2	2014-1	Rancho Associates	158	Springville Specific Plan	Public to Medium Density Residential
11	2017-1	Camino Ruiz LLC & ZDI Inc	386	5153 Camino Ruiz	Industrial to High Density Residential
13	2017-2	New Urban West, Inc	Up to 300	791 Camarillo Springs Rd	Re-designate 30 acres from the current Quasi-Public land use designation to Low-Medium Density Residential (10 dwelling units per acre maximum)



Updated on 4/4/19

Department of Community Development

City of Camarillo

City of Camarillo Commercial Projects

COMMERCIAL PROJECTS

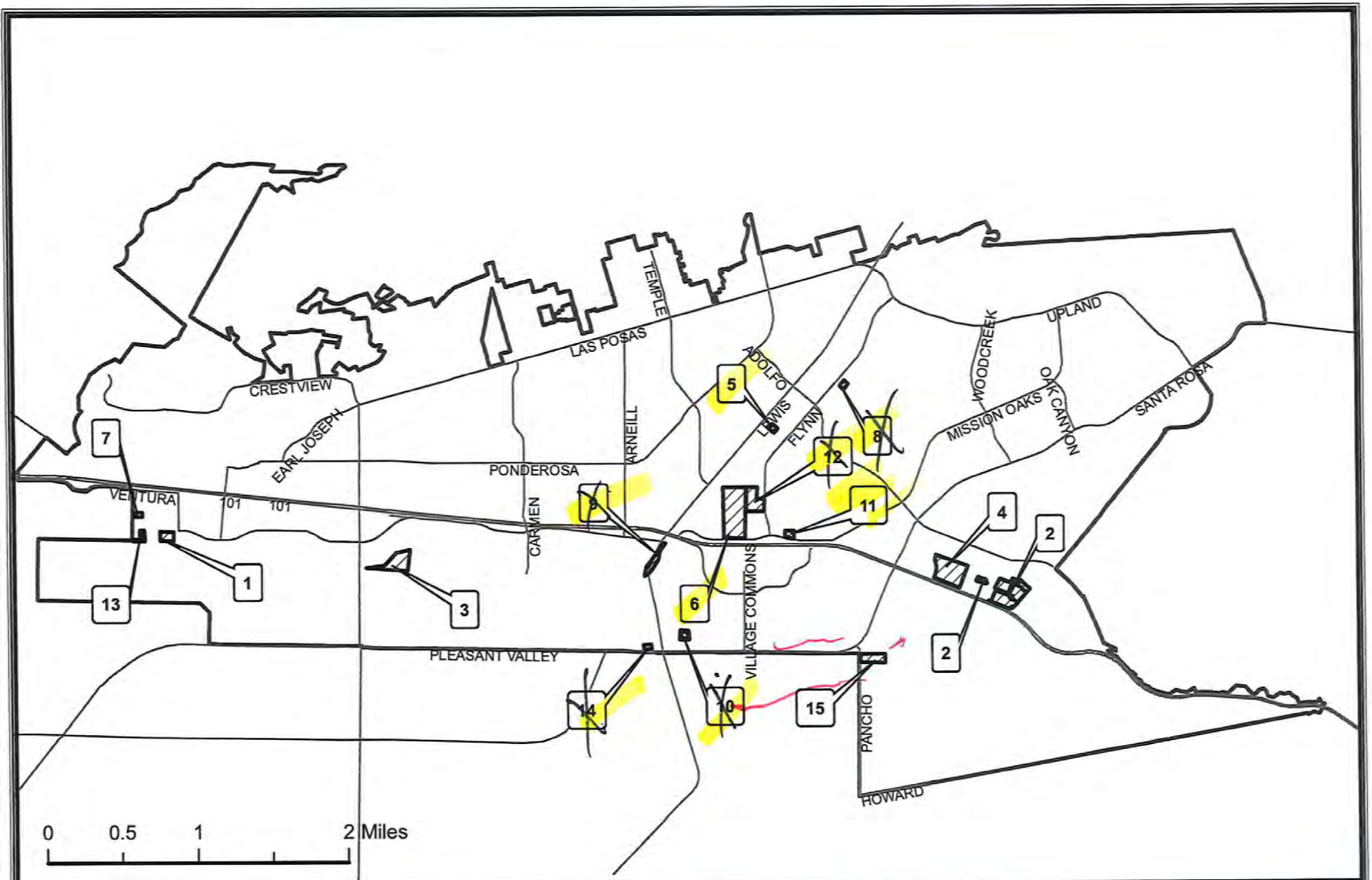
MAP ID	CASE	DEVELOPER	LOCATION	APN	DESCRIPTION	BLDG SF	ACRES	STATUS	PLANNER	APPROVAL DATE	EXPIRATION DATE
1	CPD-197M(13)	Red Rock Restaurant Constantino Papanicolaou 3301 Sturgis Rd Oxnard, CA 93030 (805) 604-0909	Southside of Ventura Blvd at the Promenade Outlets	Parcel B of LD-519A	Restaurant and brewery	10,990	0.46	Approved	C. Torres	11/16/2010	11/16/2019
2	CPD-226M(3)	Amara Shopping Center Springville Camarillo Owner Jessica Ramirez 201 S. Figueroa St, Suite 300 Los Angeles, CA 90012 (310) 652-1177	Northeast corner of W. Ventura Blvd and Springville Drive	230-0-020-230/240, 230-0-010-470/480	Commercial center	491,776	44.84	Approved	J. Vacca / J.Lee	4/19/2016	4/19/2020
3	CPD-236	Hiji Inv Co/TFR Inv Co Dennis Hardgrave 211 Village Commons Bl, Ste 15 Camarillo, CA 93012 (805) 484-9303	Between Village at the Park Drive and Westpark Court (Village at the Park)	219-0-150-125/315	Commercial mixed-use center	42,630	10.02	Approved	J. Lee	9/15/2009	9/15/2019
3	CPD-236M(1)	Hiji Inv Co/TFR Inv Co Dennis Hardgrave 211 Village Commons Bl, Ste 15 Camarillo, CA 93012 (805) 484-9303	Between Village at the Park Drive and Westpark Court (Village at the Park)	219-0-150-125 / 315	2 Commerical Pads ?	8,000	1.54	Pending	J. Lee	n/a	n/a
4	CPD-232M(2)	Carol D'Egido 17401 Gresham St Northridge, CA 91325 (310) 821-2725	Northwest corner of Santa Rosa Road and Oak Canyon Road	171-0-250-325	2 office/retail buildings	8,828	1.26	Approved	J. Lee	6/14/2016	6/14/2019
5	CUP-330	Aldersgate Inv. LLC Cedar Oak Jordan Marshall 300 E. Esplanade Dr, Suite 1550 Oxnard, CA 93036 (805) 988-4114	2024 Ventura Blvd between Cedar and Oak Streets (Old Town)	162-0-104-010, 162-0-135-050/060	Mixed use ?	6,100	0.58	Under Construction	D. Moe	11/5/2013	n/a

COMMERCIAL PROJECTS

MAP ID	CASE	DEVELOPER	LOCATION	APN	DESCRIPTION	BLDG SF	ACRES	STATUS	PLANNER	APPROVAL DATE	EXPIRATION DATE
6	CPD-4M(29)	Las Posas Plaza, LP Tim Wolfe PO Box 151 Camarillo, CA 93011 (805) 482-2761	676 Ponderosa 602 Las Posas 506 Las Posas 62 Daily Drive 61 Daily Drive	164-0-121-105 164-0-121-105 164-0-121-135 164-0-121-125 164-0-131-115	New roof and signage	n/a	11.62	Under Construction	Senior Planner	7/18/2017	n/a
7	CPD-77M(5)	Fairfield Inn and Suites Jennifer Schamberger Plantation Bay Hotels, LLC 9271 Research Drive Irvine, CA 92618 (949) 336-8085	4444 Central Avenue	148-0-012-085	Hotel conversion / renovation / minor addition	1,175	1.9	Under Construction	J. Vacca/ C. Torres	1/20/2016	n/a
8	CUP-334	City of Camarillo 601 Carmen Dr Camarillo, CA 93010 (805) 388-5360	South of W. Ventura Blvd East of Springville Drive	230-0-020-220, 230-0-010-460	Bowling alley and 2-sheet ice rink	108,481	11.68	Pending	D. Moe	n/a	n/a
9	CUP-350	Fore Property Company Jonathan Cornelius 1004 Santa Barbara St Santa Barbara, CA 93101 (805) 456-8344	Southwest corner of Ponderosa Drive and Camino Tierra Santa (Springville)	157-0-020-195	Mixed Use	6,000	3.94	Under Construction	J. Lee	10/7/2014	n/a
10	CPD-6M(19)	Sphear Investments LLC C/O Investec, Dave Pintard 200 E. Carrillo St, Ste 200 Santa Barbara, CA 93101 (805) 962-8989	Northeast corner of Ponderosa Drive and Arneill Road	166-0-210-065	Commerical Bank Office	5,500	0.51	Approved	C. Torres	9/1/2015	9/1/2019
11	CUP-369	Camarillo Village Homes LLC Gerald J. Marcil 43D Malaga Cove Plaza Palos Verdes Estates, CA 90274 (310) 791-2000	Northeast corner of Pleasant Valley and Lewis Road	229-0-070-240	Mixed Use Commercial ?	12,000	2.82	Approved	Senior Planner	9/20/2016	9/20/2019
12	CPD-245	Alism Camarillo, LLC Sam Siam 21241 Ventura Blvd Ste 181 Woodland Hills, CA 91364 (805) 807-6611	301 E. Daily Drive	164-0-132-095	Automated Carwash	5,000	0.88	Grading	O. Buck	1/16/2018	1/16/2020

COMMERCIAL PROJECTS

MAP ID	CASE	DEVELOPER	LOCATION	APN	DESCRIPTION	BLDG SF	ACRES	STATUS	PLANNER	APPROVAL DATE	EXPIRATION DATE
13	CPD-99M(4)/ CUP-381	Mohammad Rad Raad Enterprises LP 4676 Adolfo Road Camarillo, CA 93012 (562) 434-2835	4676 Adolfo Road	160-0-201-075	Convert auto repair facility to convenience store	3,000	0.83	Approved	O. Buck	7/18/2017	7/18/2019
14	CUP-384 / CPD-246	Mr. T.M. Mian Mian Development 831 Corte La Cienega Camarillo, CA 93010 (496) 688-9740	Northeast corner of Las Posas Road and Ventura Blvd	229-0-010-630, -110, -590, -610, -090, -100, -140, -150	Hotel and Conference Center	192,194	14	Approved	J. Lee	12/13/2017	12/13/2019
15	CPD-247	Lynn Vezina Cracker Barrel 307 Hartmann Dr Rancho Cordova, TN 37088 (615) 235-4086	Southside of Ventura Blvd at the Promenade Outlets	229-0-340-020	Restaurant	10,486	0.32	Approved	M. D'Anna	3/6/2018	3/6/2020
16	CUP-389	Brandy Picard Camarillo Progressive Montessori 4451 Las Posas Rd Camarillo, CA 93010 (805) 484-1460	Northwest corner of Adolfo and Santa Rosa Roads	160-0-050-235	Pre-School	4,000	0.88	Under Construction	C. Torres	6/19/2018	n/a
17	CPD-96M(2)/ CUP-388	Vishal Mirpuri Holiday Inn Express RV Heritage Investments 8925 Research Drive, Suite 100 Irvine, CA 92618 (703) 981-8814	1405 Del Norte Road	198-0-020-195	Façade renovation to existing hotel	59,000	2.09	Under Construction	Senior Planner	3/6/2018	n/a
18	CUP-391	Lustra Development, Inc Rick Town 99 South Glenn Street Camarillo, CA 93010 (818) 661-8931	99 South Glenn Drive	162-0-154-110 162-0-154-120	Mixed use, 12 apartments, 2 retail spaces	1,400	0.16	Pending	C. Torres	n/a	n/a
19	CUP-392	Reliant Land Services Stella Smith 1745 W Orangewood Ave Orange, CA 92868 (714) 685-0123	2275 Las Posas Road	151-0-060-205	New stealth roof-mounted wirelss facility	0	0.62	Pending	J. Lee	n/a	n/a



Updated on 2-12-19

Department of
Community Development

City of Camarillo

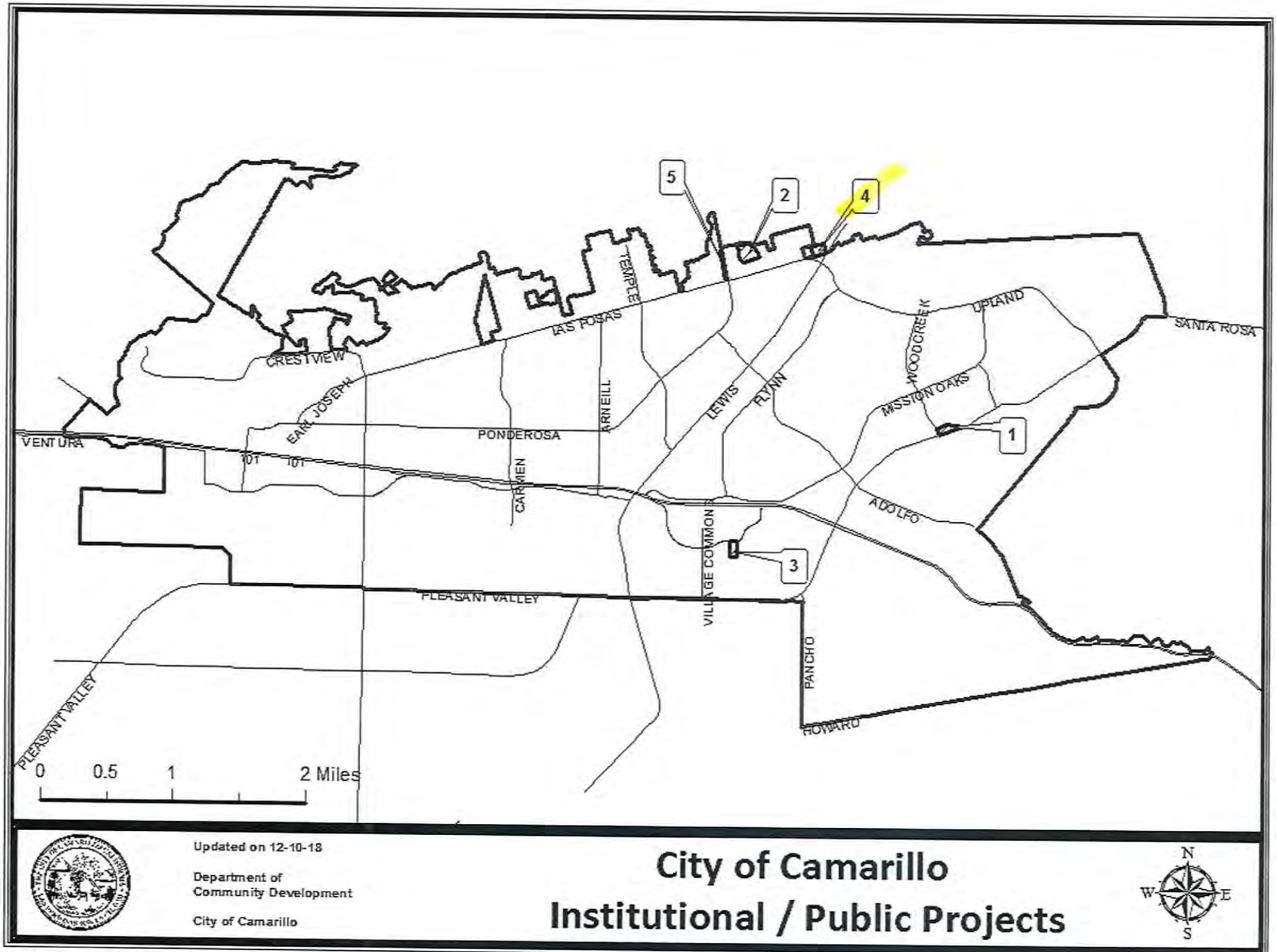
City of Camarillo
Industrial Projects

INDUSTRIAL PROJECTS

MAP ID	CASE	DEVELOPER	LOCATION	APN	DESCRIPTION	BLDG SF	ACRES	STATUS	PLANNER	APPROVAL DATE	EXPIRATION DATE
2	IPD-396	PEGH Inv LLC, Trilliad Dev Inc Valerie Draeger 4812 Lakeview Canyon Rd Westlake Village, CA 91361 (818) 991-7033	West side of Camino Carillo, approximately 230' south of Verdugo Way	160-0-093-265	Single tenant industrial	14,430	1.12	Approved	C. Torres	9/6/2011	9/6/2019
2	TT-5979	PEGH Inv LLC, Trilliad Dev Inc Valerie Draeger 4812 Lakeview Canyon Rd Westlake Village, CA 91361 (818) 991-7033	Terminus of Camino Carillo, west of Conejo Creek	160-0-111-065, 075, 085, 095, 105, 115, 125, 135	Tentative Tract Map for Lots 4-7	n/a	21.43	Approved	C. Torres	2/14/2018	2/14/2020
3	IPD-398 T-5890	Hiji Investment Co Dennis Hardgrave 211 Village Commons Bl, Ste 15 Camarillo, CA 93012 (805) 484-8303	South side of Camarillo Center Dr, between Las Posas Rd and Factory Stores Dr	229-0-010-660/400/430	4 Industrial condo buildings	129,016	10.78	Approved	C. Torres	9/14/2011 - TRACT & 8/2/2011 - IPD	9/14/2019 - TRACT & 8/2/2019 - IPD
4	LD-539	Camino Ruiz, LLC Lark Christensen ZDI, Inc. 16509 Saticoy St Van Nuys, CA 91406 (310) 392-7899	5151, 5153, 5155 Camino Ruiz	160-0-093-195	Land Division	n/a	19.98	Approved	D. Moe	5/15/2018	5/15/2020
5	CUP-383	Santa Monica Mountains Farmstead 1706 Maria Ave Thousand Oaks, CA 91310 (805) 907-8898	853 Via Alondra	160-0-030-085	Microbrewery with tasting room	11,836	1.34	Under Construction	J. Lee	7/18/2017	n/a
6	IPD-53M(6)	Bruce Herbkersman Rexford Industrial Realty, Inc 11620 Wilshire Blvd, Suite 1000 Los Angeles, CA 90025 (310) 966-3812 x112	3233 E. Mission Oaks Blvd	160-0-010-730	Parking lot with 65 parking spaces	n/a	31.89	Approved	C. Torres	5/20/2015	11/20/2019
6	IPD-53M(9)	Bruce Herbkersman Rexford Industrial Realty, Inc 11620 Wilshire Blvd, Suite 1000 Los Angeles, CA 90025 (310) 966-3812 x112	3233 E. Mission Oaks Blvd	160-0-010-730	Modify industrial building	4,800	31.89	Under Construction	C. Torres	9/19/2017	n/a

INDUSTRIAL PROJECTS

MAP ID	CASE	DEVELOPER	LOCATION	APN	DESCRIPTION	BLDG SF	ACRES	STATUS	PLANNER	APPROVAL DATE	EXPIRATION DATE
7	CUP-386	MCB Enterprises, Inc Mike Brown 4730 Stagecoach Ct. Moorpark, CA 93021 (805) 558-6552	126 N. Wood Road. Suites 100, 102, 104, and 106	230-0-132-035	Microbrewery, distillery, and winery	39,900	0.91	Under Construction	J. Lee	1/16/2018	n/a
8	CUP-387	Jerry Ambrose Verizon Wireless 3905 State Street, Suite 7-188 Santa Barbara, CA 93105 (805) 637-7407	4053 Calle Tesoro	160-0-042-025	Wireless Facility	n/a	n/a	Pending	C. Torres	n/a	n/a
9	LD-536	Union Pacific Railroad Company Chris Goble 1400 Douglas St. STOP 1690 Omaha, NE 68179 (405) 544-8549	140-212 Dawson Drive	162-0-160-510	Lot split to create two lots	n/a	1.52	Approved	D. Moe	7/18/2017	7/18/2019
10	CUP-385	Verizon Wireless Eukon Group Elizabeth Brown 65 Post, Suite 1000 Irvine, CA 92618 (949) 413-9876	553 Constitution Avenue	229-0-070-115	New Wireless Facility	300	1.77	Pending	C. Torres	n/a	n/a
11	CUP-364M(1)	Roger Smith Institution Ale Company 3841 Mission Oaks Blvd Camarillo, CA 93012 (805) 482-3777	3841 Mission Oaks Blvd. Suite B	160-0-340-58	Expansion of existing brewery	24,102	1.9	Under Construction	C. Torres	3/20/2018	n/a
12	LD-545	Robert F. Goetsch 617 North Catalina Street Burbank, CA 91505 (805) 648-1234 ext 18	201 Flynn Road	160-0-140-145, 155, & 135	Subdivide parcel into two parcels	n/a	11.16	Pending	C. Torres	n/a	n/a
13	IPD-403	RGM Architects Rick Moraga 350 N. Lantana St, Suite 22 Camarillo, CA 93012 (805) 482-1836	950 W. Verdulera St.	230-0-131-035	New Industrial Building	17,506	1.19	Pending	C. Torres	n/a	n/a



Updated on 12-10-18

Department of
Community Development

City of Camarillo

City of Camarillo
Institutional / Public Projects

INSTITUTIONAL / PUBLIC PROJECTS

MAP ID	CASE	DEVELOPER	LOCATION	APN	DESCRIPTION	BLDG SF	ACRES	STATUS	PLANNER	APPROVAL DATE	EXPIRATION DATE
1	CUP-312	St. Demetrios Greek Church Keith Valle PO Box 1970 Camarillo, CA 93010 (805) 377-3919	5575 Santa Rosa Road	171-0-250-655	Church (total of 31,240 sf in 3 phases)	9,058	4.07	Under Construction	J. Lee	10/19/2010	n/a
2	SUP-14M(15)	Dignity Health 2309 Antonio Av Camarillo, CA 93010 (805) 389-5800	2309 Antonio Avenue	156-0-150-080	Acute Care and chapel addition	72,342	9.66	Under Construction	J. Lee	4/7/2015	n/a
3	RPD-200	Oakmont Senior Living EJM Development Co. Bill Mabry 9240 Old Redwood Hwy Ste 200 Windsor, CA 95492 (707) 535-3208	Southwest corner of Village at the Park Dr and Davenport Street	229-0-203-105	93-bed senior assisted living facility	87,287	3.12	Under Construction	C.Torres	5/16/2017	n/a
4	CUP-394	City of Camarillo Lucie McGovern 601 Carmen Drive Camarillo, CA 93010 (805) 388-5360	Northwest of the intersection of Las Posas and Lewis Roads	156-0-180-285	North Pleasant Valley Groundwater Treatment Facility	6,541	4.7	Approved	J. Lee	11/20/2018	11/20/2019
5	CUP-379	Jerry Doran Pleasant Valley Mutual Water Co 1863 Las Posas Rd Camarillo CA 93010 (805) 482-5061	2411 Ponderosa Drive	153-0-180-555	Desalter	1,600	1.64	Approved	O. Buck	11/20/2018	11/20/2019

Appendix I

Preliminary Hydrology Memorandum

JENSEN
DESIGN & SURVEY, INC.
Delivering excellence through experience

1672 Donlon Street
Ventura, CA 93003
Local 805 654-6977
Fax 805 654-6979
www.jdscivil.com

PLA02.5893
Friday, November 01, 2019

County of Ventura
Watershed Protection District
Kim Loeb, Manager
800 S. Victoria Ave
Ventura, CA 93009

Subject: Somis Ranch Farmworker Housing – Preliminary Hydrology

Dear Mr. Loeb,

Somis Ranch is proposing to construct a 360-unit farmworker housing complex on an approximately 18-acre portion of Assessor Parcel Number (APN) 156-0-180-280. The proposed project site is located on Somis Road, immediately north of and adjacent to the Camarillo City limits. The project will create approximately 469,000 SF of additional impervious area. The intent of this letter is to show that the preliminary design of this project will meet County requirements.

Existing Conition
The current site is undeveloped and used for agriculture. It drains from north to south at an average slope of less than 1%. Flow from the site is directed towards a drainage channel along the west side of the site. The drainage channel flows south to the edge of the Rancho Campana High School parking lot and turns west between the neighboring Rancho Campana High School and Church of Latter-Day Saints properties. Runoff within the channel flows into an inlet structure 300 feet west of the project site (see attached Hydrology Exhibit for reference). From here, a City of Camarillo storm drain system carries the flow to Calleguas Creek.

Developed Condition
The proposed site will be broken up into three construction phases. Runoff from the area within Phase 1 (Subareas 15-17 & 24-29) and the western portions of Phase 2 & 3 (Subareas 18, 20, & 22) will be directed towards a detention basin in the southwest corner of the site. The remaining runoff tributary to Phases 2&3 (Subareas 1-14, 21 & 23) will be directed to a second detention basin on the east side of the site. Both of the basins have been designed to mitigate post-construction peak runoff flows to current peak runoff flows Outflow from the basins will be released into the existing drainage channel and continue to drain as in the pre-construction conditions.

Detention
Detention volumes for the site were determined using the County's Small Area Detention Calculator. The calculator is conservative and typically results in much larger volumes than required in final design of large projects. Detention volumes for final design will be calculated with the use of the County's TcCalc and VCRat programs, as well as the Hydraflow Program. The minimum required volumes for the western basin serving most of Phase 1 and the eastern basin serving most of Phases 2&3 are approximately 10,300 CF and 27,900 CF, respectively.

The preliminary design provides 15,400 CF of detention for the western basin and 40,350 CF of detention for the eastern basin, with the additional storage to allow for adjustments in final design.

MS4 Compliance

The proposed project is not within the County's Unincorporated Urban Area that requires MS4 compliance, but it is anticipated that the project will be conditioned to comply with the MS4 permit.

On site infiltration tests have shown that the infiltration rate is poor with an average rate less than 0.1 in/hr. Due to the poor infiltration rates, using infiltration to meet the MS4 requirements will be technically infeasible and stormwater will need to be treated and released offsite. The proposed project will use the Modular Wetlands proprietary product from Bio Clean to meet the County's MS4 requirements. The biofiltration devices will be used in parallel to treat the minimum stormwater quality design flow (SQDF). See attached SQDF calculations and manufacturer's detail.

Groundwater Recharge

The proposed project is increasing impervious area, which will result in a loss of recharge to the local groundwater basin. Due to the poor infiltration rates on site, minimal rainwater has the opportunity to infiltrate during rain events in the existing condition. The volume of water lost annually by the increased impervious area was calculated using historical data published by Ventura Watershed. Increased impervious area from the site will result in an average loss of 0.71 acre-feet of recharge per year, see attached calculations for reference. This amount is negligible for a 36 acre site.

The proposed site is not within any FEMA Special Flood Hazard Areas.

This preliminary analysis shows that the proposed development can meet the County design requirements for stormwater treatment and detention. Many of the calculations will be refined during the final design process and will include pad protection, catch basin inlet capacity, and street conveyance capacity. If you have any questions regarding this information, please don't hesitate to contact me.

Sincerely,
Jensen Design & Survey, Inc.

Robert Harvey, P.E.
Civil Engineer

Enclosures
Hydrology Exhibit
County's Small Area Detention Calculations
SQDF Calculations
Bio Clean Modular Wetlands Detail
Groundwater Recharge Loss Calculations

PHASES 2&3 DETENTION BASIN
VOLUME = 30,528 CF

DIVERSION STRUCTURE

BIOFILTRATION SYSTEM

DIVERSION STRUCTURE

BIOFILTRATION SYSTEM

DETENTION PHASE 1 BASIN VOLUME = 14,352 CF

EXISTING DRAINAGE CHANNEL

OUTLET INTO EXISTING DRAINAGE CHANNEL
AND CONTINUE TOWARDS INLET STRUCTURE

PHASE 3

PHASE 2

PHASE 1

ORCHARD

NOIS

1 0.6
2 0.4
3 0.4
4 0.5
5 0.3
6 0.2
7 0.8
8 1.0
9 0.4
10 0.2
11 0.5
12 0.6
13 1.2
14 0.7
15 0.7
16 0.4
17 0.3
18 1.2
19 0.4
20 1.7
21 0.8
22 0.7
23 0.9
24 0.7
25 1.1
26 0.6
27 0.4
28 0.3
29 0.4

50' 25' 0' 50' 100'
GRAPHIC SCALE: 1"=50'

LEGEND

- DRAIN INLET
- X / X.XX — MAIN AREAS / AREA (AC)
- SD — STORM DRAIN
- SITE/PHASE LIMITS
- WATERSHED SUB-AREA BOUNDARY
- PROPOSED DETENTION AREAS

FLOW DATA:

TOTAL SITE AREA = 18.2 ACRES

$q10_{DEVELOPED}$ = 1.12 CFS/ACRE

$q50_{DEVELOPED}$ = 1.50 CFS/ACRE

$q100_{DEVELOPED}$ = 1.73 CFS/ACRE

JENSEN DESIGN & SURVEY, INC
www.jdscivil.com
1672 DONLON STREET
VENTURA, CALIF. 93003
PHONE 805/654-6977
FAX 805/654-6979

SCALE: 1" = 50'
J.N.: PLA02.5893
DATE: 8/27/2012
DWG. NAME: 5893_Prelim Hydro.dwg

HYDROLOGY EXHIBIT
FOR
SOMIS RANCH FARMWORKER HOUSING
APN 156-0-180-280
COUNTY OF VENTURA STATE OF CALIFORNIA

FIGURE 1

J:\PLA2589.3\Planning\Exhibits\5893_Prelim Hydro.dwg Oct 31, 2019, 3:05pm rharvey

Detention Volume for Attenuating Peak Runoff from Small Developed Areas

Phase 1	**Predevelopment**	**Post-Dev**
100-yr 1-d Rain in	6.5	6.5
Soil Type	5	5
Land Use	Ag - Good	Residential - Condos
CN Exhibit 14	77	87
S = 1000/CN-10	2.99	1.49
Yield in	3.92	5.00
Volume Calculation		
Yield Difference in		1.08
Depression Storage in.		0.50
Net Yield		0.58
Impervious Area ac		4.90
Vol Increase CF- Max Basin Size Req'd		10277.10

Detention Volume for Attenuating Peak Runoff from Small Developed Areas

Phase 2&3	**Predevelopment**	**Post-Dev**
100-yr 1-d Rain in	6.5	6.5
Soil Type	5	5
Land Use	Ag - Good	Residential - Condos
CN Exhibit 14	77	87
S = 1000/CN-10	2.99	1.49
Yield in	3.92	5.00
Volume Calculation		
Yield Difference in		1.08
Depression Storage in.		0.50
Net Yield		0.58
Impervious Area ac		13.30
Vol Increase CF- Max Basin Size Req'd		27894.98

Project Name: Somis Farm Worker Housing
Job No: PLA02.5893
Date: 10/31/2019
Drainage Area Name: Phase 1

Step 1: Determine Water Quality Design Flow				
1-1	Enter Project Area (Acres), $A_{project}$	$A_{project}$=	4.9	ac
1-2	Enter impervious fraction, IMP	IMP =	0.59	
1-3	Determine pervious runoff coefficient using Table E-1, C_p	C_p =	0.05	
1-4	Calculate runoff coefficient $C=0.95*IMP + C_p(1-IMP)$	C =	0.581	
1-5	Enter design rainfall intensity (in/hr), i	i =	0.28	in/hr
1-6	Calculate water quality design flow (cfs), SQDF - CiA	SQDF =	0.797132	cfs

Note: Rainfall intensity per Table 2-1 of 2011 TGM.

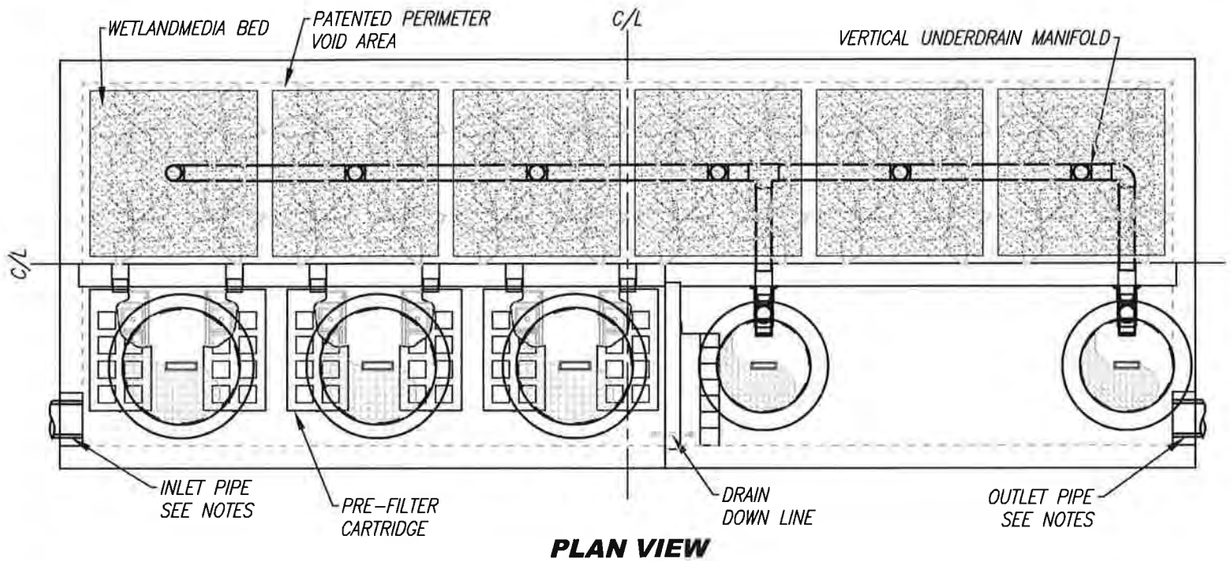
Project Name: Somis Farm Worker Housing
Job No: PLA02.5893
Date: 10/31/2019
Drainage Area Name: Phase 2 & 3

Step 1: Determine Water Quality Design Flow				
1-1	Enter Project Area (Acres), $A_{project}$	$A_{project}$=	13.3	ac
1-2	Enter impervious fraction, IMP	IMP =	0.59	
1-3	Determine pervious runoff coefficient using Table E-1, C_p	C_p =	0.05	
1-4	Calculate runoff coefficient $C=0.95*IMP + C_p(1-IMP)$	C =	0.581	
1-5	Enter design rainfall intensity (in/hr), i	i =	0.28	in/hr
1-6	Calculate water quality design flow (cfs), SQDF - CiA	SQDF =	2.163644	cfs

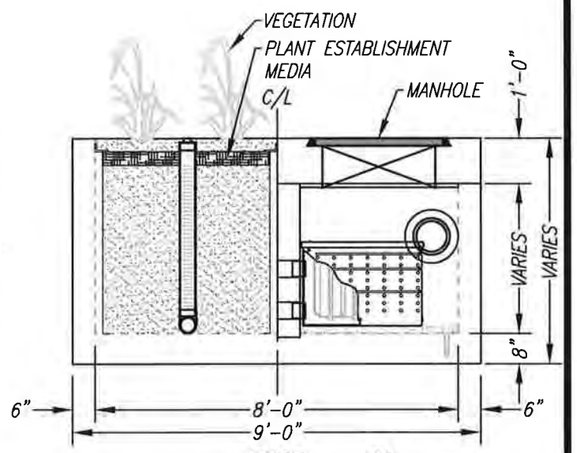
Note: Rainfall intensity per Table 2-1 of 2011 TGM.

SITE SPECIFIC DATA			
PROJECT NUMBER			
PROJECT NAME			
PROJECT LOCATION			
STRUCTURE ID			
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
N/A		0.693	
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			OFFLINE
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE			
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION			
SURFACE LOAD	DIRECT TRAFFIC		
FRAME & COVER	3EA ø30"	OPEN PLANTER	2EA ø24"
NOTES:			

* PRELIMINARY NOT FOR CONSTRUCTION



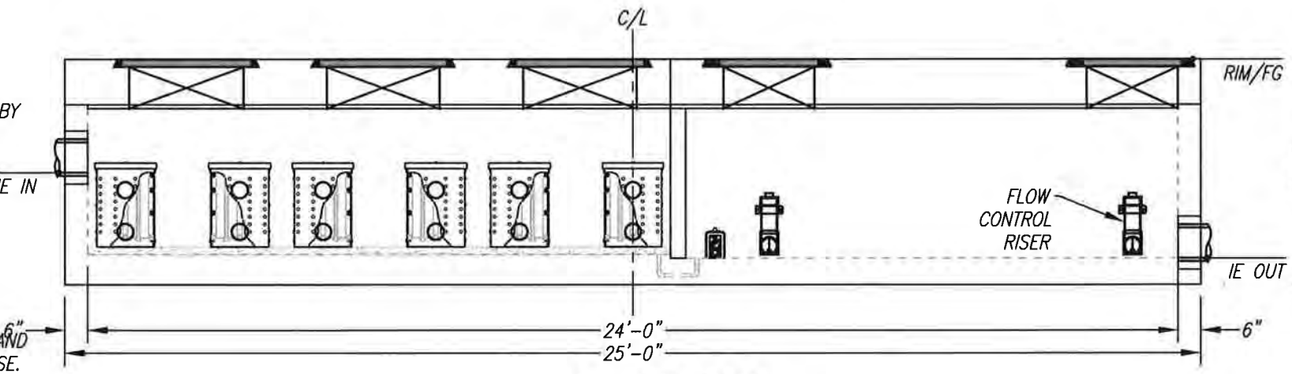
PLAN VIEW



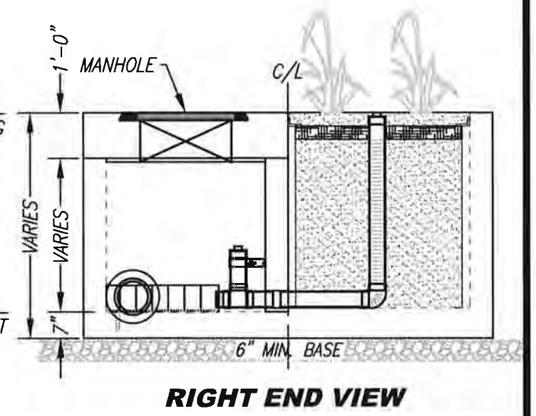
LEFT END VIEW

INSTALLATION NOTES

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE TO VERIFY PROJECT ENGINEERS RECOMMENDED BASE SPECIFICATIONS.
4. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATER TIGHT PER MANUFACTURERS STANDARD CONNECTION DETAIL.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
6. VEGETATION SUPPLIED AND INSTALLED BY OTHERS. ALL UNITS WITH VEGETATION MUST HAVE DRIP OR SPRAY IRRIGATION SUPPLIED AND INSTALLED BY OTHERS.
7. CONTRACTOR RESPONSIBLE FOR CONTACTING BIO CLEAN FOR ACTIVATION OF UNIT. MANUFACTURERS WARRANTY IS VOID WITH OUT PROPER ACTIVATION BY A BIO CLEAN REPRESENTATIVE.



ELEVATION VIEW



RIGHT END VIEW

TREATMENT FLOW (CFS)	0.693
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	2.0
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

GENERAL NOTES

1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT BIO CLEAN.

MWS-L-8-24-V
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

5/23/19T01.FF

JENSEN DESIGN & SURVEY, INC

PROJECT: Somis Farm Worker Housing J.N. PLA 02.5893
Groundwater Recharge
DESCRIPTION: Loss Calculations DATE: 11/1/2019

Infiltration rate = 0.1 in/hr

Area = 18.2 acres

Avg. Distance of Travel (L) = 825'
Overland = 300'
Channel = 525'

Slope (S) = 0.008 ft/ft

% Impervious = 59%

Impervious Area = 10.7 AC

2-year 24 hr Rainfall (P) = 2.51"

Yearly Data Based on 2014-2018 Watershed Data:

Avg. Days of Rain Per Year = 22

Time of Concentration per TR-55

$T_c = T_1 + T_2$

T_1 = overland flow $= \dfrac{0.007(nL)^{0.8}}{P^{0.5} S^{0.4}}$

$= \dfrac{(0.007)((0.05)(300'))^{0.8}}{(2.51)^{0.5}(0.008)^{0.4}}$

$T_1 = 0.266$ hr (overland)

$T_2 = \dfrac{L}{3600V} = \dfrac{525'}{3600\left(1.53\frac{ft}{s}\right)}$

$T_2 = 0.095$ hr (channel)

$T_c = 0.266 + 0.095 = 0.361$ hr
(Total T_c Developed Condition)

Infil. Vol. Loss = $T_c \cdot$ (Inf. Rate) $\cdot$ (# of Rainy Days) $\cdot$ (Imp. Area)

$$V = (0.361\,\text{hr})\left(\frac{0.1\,\text{in}}{\text{hr}}\right)\left(\frac{1\,\text{ft}}{12\,\text{in}}\right) \cdot 22\,\text{days} \cdot 10.7\,\text{ac}$$

$V = 0.708$ acre-feet

Appendix J

Geotechnical Engineering Report

GEOTECHNICAL ENGINEERING REPORT

FOR PROPOSED

SOMIS RANCH RESIDENTIAL DEVELOPMENT

VENTURA COUNTY, CALIFORNIA

PROJECT NO.: 302947-001

SEPTEMBER 27, 2019

PREPARED FOR

PLAZA DEVELOPMENT PARTNERS LLC

ATTENTION: DAVE WHITE

BY

EARTH SYSTEMS PACIFIC

1731-A WALTER STREET

VENTURA, CALIFORNIA 93003

Earth Systems
1731 Walter Street, Suite A | Ventura, CA 93003 | Ph: 805.642.6727 | www.earthsystems.com

September 27, 2019

Project No.: 302947-001
Report No.: 19-9-26

Plaza Development Partners LLC
Attention: Dave White
P.O. Box 6045
Oxnard, CA 93031-6045

Project: Somis Ranch - Proposed Residential Development
Camarillo Area of Ventura County, California
Subject: Geotechnical Engineering Report

As authorized, Earth Systems Pacific (Earth Systems) has performed a geotechnical engineering study for the residential development at Somis Ranch in the Camarillo area of Ventura County, California. The accompanying Geotechnical Engineering Report presents the results of our subsurface exploration and laboratory testing programs, and our conclusions and recommendations pertaining to geotechnical aspects of project design. This report completes Phase 1 of the scope of services described within our Proposal VEN-18-12-002 dated December 6, 2018 and July 17, 2019.

We have appreciated the opportunity to be of service to you on this project. Please call if you have any questions, or if we can be of further service.

Respectfully submitted,

EARTH SYSTEMS PACIFIC

mlw
September 27, 2019
Meng Wei Lu
Civil Engineer

REGISTERED PROFESSIONAL ENGINEER
MENG WEI LU
C 89106
Exp 9/30/20
CIVIL
STATE OF CALIFORNIA

Reviewed and Approved

Richard M Beard 27 Sept. 2019
Richard M. Beard
Geotechnical Engineer

REGISTERED PROFESSIONAL ENGINEER
RICHARD MICHAEL BEARD
GE 128
Exp. 12-31-19
GEOTECHNICAL
STATE OF CALIFORNIA

Todd J. Tranby
Engineering Geologist

PROFESSIONAL GEOLOGIST
TODD J. TRANBY
No. 2078
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

Copies: 4 - Client (3 mail, 1 email)
1 - Project File

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

INTRODUCTION

Project Description

This report presents results of a geotechnical engineering study performed for a proposed residential development at Somis Ranch in the Camarillo area of Ventura County, California (see Vicinity Map in Appendix A). Current plans indicate that the proposed residential development will include about 59 residential buildings, a community center and garden, play fields, a basketball court, driveways, and parking areas.

Site development is anticipated to include grading to create building pads and streets, and improve drainage. Because the site is essentially flat with a gentle slope, cut and fill depths are not expected to exceed a few feet. When this report was prepared there was not a preliminary grading plan.

The proposed residences may include 1-, 2-, or 3-story structures supported by shallow conventional or post-tension foundations. Structural loads of 1.5 kips per lineal foot and column loads of up to 25 kips are anticipated. If actual loads vary significantly from these assumed loads, Earth Systems should be notified since reevaluation of the recommendations contained in this report may be required.

Purpose and Scope of Work

The purpose of the geotechnical study that led to this report was to analyze the soil conditions of the project site and to provide geotechnical recommendations for construction. The soil conditions include surface and subsurface soil types, expansion potential, soil strength, settlement potential, bearing capacity, and the presence or absence of subsurface water. The scope of work included:

- Performing a reconnaissance of the project site.
- Drilling, sampling, and logging 23 hollow-stem-auger borings (B-1 through B-19 and IT-1 through IT-4) to study soil and groundwater conditions. Four of the borings (IT-1 through IT-4) drilled were used for infiltration testing.
- Performing 3 Cone Penetrometer Test (CPT) soundings on the project site to study soil and groundwater conditions, and to evaluate the liquefaction potential of the soils within the depth tested.

- Laboratory testing soil samples obtained during the subsurface exploration to determine their physical and engineering properties.
- Performing infiltration tests.
- Consulting with owner representatives and design professionals.
- Analyzing the geotechnical data obtained.
- Preparing this report.

Contained in this report are:

- Descriptions and results of field and laboratory tests that were performed.
- Conclusions and recommendations pertaining to site grading and structural design.

Site Setting

The project site is a farmland used for growing row crops. The project site has a slight surficial drainage to the south/southwest, and is bounded by the Rancho Campana High School to the southwest and farmlands in all other directions. The elevations of the project site range from about 215 to 220 feet above mean sea level. The geographic coordinates of the project site are 34.2469˚ North Latitude and 119.0112° West Longitude.

REGIONAL GEOLOGY

The property lies within an alluvial valley intersecting the Camarillo foothills in the western portion of the Transverse Ranges geologic province. Numerous east-west trending folds and reverse faults indicative of active north-south transpressional tectonics characterize the region. The ongoing regional compression produces the east-west trending faults that deform early Pleistocene to Tertiary aged marine and non-marine sedimentary bedrock units.

Regional Geologic Map 1 (T.W. Dibblee, Jr, Geologic Map of the Camarillo and Newbury Park Quadrangles, 1990) shows that the southwest-northeast trending Santa Rosa Fault is about 4,500 feet southeast of the site (see Appendix A). Regional Geologic Map 2 (USGS/CGS, SCAMP Geologic Map of the Camarillo 7.5' Quadrangle, 2004) indicates that the southwest-northeast trending Somis Fault and Springville Fault Zone are about 200 and 2,000 feet southeast and northwest of the site, respectively (see Appendix A). The site is mapped by T.W. Dibblee, Jr. and the USGS/CGS to be underlain by alluvium, which was encountered during our study.

SEISMICITY AND SEISMIC DESIGN

Although the project site is not within a State-designated "fault rupture hazard zone", it is located in an active seismic region where large numbers of earthquakes are recorded each year. Historically, major earthquakes felt in the vicinity of the project site have originated from faults outside the area. These include the 1857 Fort Tejon earthquake, the 1872 Owens Valley earthquake, and the 1952 Arvin-Tehachapi earthquake.

It is assumed that the 2016 CBC and ASCE 7-10 guidelines will apply for the seismic design parameters. The 2016 CBC includes several seismic design parameters that are influenced by the geographic site location with respect to active and potentially active faults, and with respect to subsurface soil or rock conditions. The seismic design parameters presented herein were determined by the United States Seismic Design Maps "risk-targeted" calculator on the SEAOC/OSHPD website for the project site coordinates (34.2469˚ North Latitude and 119.0112° West Longitude). The calculator adjusts for Soil Site Class, which in this case is D, and for Risk Category, which in this case is II.

The calculated 2016 California Building Code (CBC) and ASCE 7-10 seismic parameters typically used for structural design are included in Appendix D and summarized in the following table.

Summary of Seismic Parameters (2016 CBC)

Seismic Design Category	E
Site Class (Table 20.3-1 of ASCE 7-10 with 2013 update)	D
Occupancy (Risk) Category	II
Maximum Considered Earthquake (MCE) Ground Motion	
Peak Modified Ground Acceleration – PGA_m	0.981 g
Spectral Response Acceleration, Short Period – S_s	2.552 g
Spectral Response Acceleration at 1 sec. – S_1	0.908 g
Site Coefficient – F_a	1.00
Site Coefficient – F_v	1.50
Site-Modified Spectral Response Acceleration, Short Period – S_{MS}	2.552 g
Site-Modified Spectral Response Acceleration at 1 sec. – S_{M1}	1.362 g
Design Earthquake Ground Motion	
Short Period Spectral Response – S_{DS}	1.701 g
One Second Spectral Response – S_{D1}	0.908 g

The values presented in the table above are appropriate for a 2 percent probability of exceedance in 50 years. A listing of the calculated 2016 CBC and ASCE 7-10 seismic parameters is included in Appendix D.

The Fault Parameters table in Appendix D lists the significant "active" and "potentially active" faults within a 33-mile (53-kilometer) radius of the project site. The distance between the project site and the nearest portion of each fault is shown as well as the respective estimated maximum earthquake magnitudes.

SOIL AND GROUNDWATER CONDITIONS

Evaluation of the subsurface indicates that much of the project site underlain directly by alluvium consisting of interbedded clay, silt, and sand. Testing indicates that anticipated bearing soils lie in the "Medium" to "High" expansion range based on measured expansion indices of 72 and 105. However, it is Earth Systems' professional judgement that the onsite soils should be considered to be in the "High" expansion range and that the recommendations provided in this report should be based on the "High" expansion range. A locally adopted version of this classification of soil expansion, Table 1809.7, is included in Appendix C of this report. It appears that soils can be cut by normal grading equipment.

Groundwater was not encountered in the onsite borings and CPT soundings to a maximum depth of about 61.5 feet below the existing ground surface. According to the Seismic Hazard Zones Report for the Camarillo 7.5-Minute Quadrangle, Ventura County, California (CGS, 2002), the depth of historical high groundwater is estimated to be deeper than 70 feet. See Historical High Groundwater Map in Appendix A. It should be noted that fluctuations in groundwater levels may occur because of variations in rainfall, regional climate, and other factors.

Two samples obtained from the upper 5 feet of Borings B-1 and B-8 were tested for pH, resistivity, soluble sulfates, and soluble chlorides. The test results provided in Appendix B should be distributed to the design team for their interpretations pertaining to the corrosivity or reactivity of various construction materials (such as concrete and piping) with the soils. It should be noted that the measured sulfate contents (710 and 510 mg/Kg) are in the "S0" exposure class (i.e. "Negligible" severity range) of Table 19.3.1.1 of ACI 318-14. Therefore, special concrete designs will not be necessary for the measured sulfate contents according to Table 19.3.2.1 of ACI 318-14.

Based on criteria established by the County of Los Angeles, the measured resistivity values of the soil samples (1,300 and 1,700 ohms-cm) indicates that near-surface soils are "Corrosive" to ferrous metal (i.e. cast iron, etc.) pipes. It should be noted that Earth Systems does not practice soil corrosion engineering.

HYDROCOLLAPSE POTENTIAL

Hydrocollapse is a phenomenon in which naturally occurring soil deposits, or non-engineered fill soils, collapse when wetted. Natural soils that are susceptible to this phenomenon are typically aeolian, debris flow, alluvial, or colluvial deposits with high apparent strength when dry. Loosely compacted fills can also be susceptible to this phenomenon. The dry strength is attributed to salts, clays, silts, and in some cases capillary tension, "bonding" larger soil grains together. So long as these soils remain dry, their strength and resistance to compression are retained. However, when wetted, the salt, clay, or silt bonding agent is weakened or dissolved, or capillary tension reduced, eventually leading to collapse. Soils susceptible to this phenomenon are found throughout the southwestern United States.

Although groundwater is anticipated to be deeper than 70 feet at the project site, Earth Systems understands that the project site may have agricultural, stormwater infiltration, and onsite wastewater effluent discharges in the future. Based on the consolidation tests performed on soil samples obtained from Boring B-1, it appears that the upper 20 feet of silty clay has negligible potential of hydrocollapse. However, the soil samples obtained between depths of 20 and 50 feet showed 0.5% to 1% of hydrocollapse potential. Gravel layers are assumed to have negligible hydrocollapse potential. Soil layers that have more than 70% of degree of saturation are also assumed to have negligible hydrocollapse potential. Based on the above, Earth Systems estimates a hydrocollapse-induced settlement of about 1.5 inches.

LIQUEFACTION POTENTIAL

Earthquake-induced cyclic loading can be the cause of several significant phenomena, including liquefaction in fine sands and silty sands. Liquefaction results in a loss of soil strength and can cause structures to settle and, in extreme cases, to experience bearing failure.

The potential hazard posed by liquefaction is considered to be low at the project site because:

- The project site does not lie within a potentially liquefiable zone (see Seismic Hazard Zones Map in Appendix A).
- Groundwater is anticipated to be deeper than 70 feet below the ground surface of the project site (see Historical High Groundwater Map in Appendix A).

SEISMIC-INDUCED SETTLEMENT OF DRY SANDS

Dry (unsaturated) soils tend to settle and densify when subjected to earthquake shaking. The amount of settlement is a function of relative density, cyclic shear strain magnitude, and the number of strain cycles. A procedure to evaluate this type of settlement was developed by Seed and Silver (1972) and later modified by Pyke, et al. (1975). Tokimatsu and Seed (1987) presented a simplified procedure that has been reduced to a series of equations by Pradel (1998).

Earth Systems used the three onsite CPT soundings to perform the dry-sand settlement analysis. The parameters used and analyses results are presented in Appendix E, and indicate a potential for about 0.2 inch of seismic-induced settlement during a design level earthquake, half of which may be differential.

FAULT RUPTURE HAZARD

A fault is a break in the earth's crust upon which movement has occurred in the recent geologic past and at which future movement is expected. A summary of nearby active faults is presented in Appendix D under Table 1 Fault Parameters.

The project site does not lie within a State of California designated active fault hazard zone. The activity of faults is classified by the State of California based on the Alquist-Priolo Earthquake Fault Zoning Act (1972, Revised 1999). An active fault has had surface rupture with Holocene time (the past 11,000 years). A potentially active fault shows evidence of surface displacement during Quaternary time (last 1.6 million years). An inactive fault has no evidence of movement within the Quaternary time.

As previously discussed in the Regional Geology section of this report, all nearby faults (as shown on both reviewed Regional Geologic Maps) are at least about 200 feet away from the project site. Therefore, the potential for fault rupture at the project site is considered low.

LANDSLIDES

Landsliding is a process where a distinct mass of rock or soil moves downslope because of gravity. No landslides are mapped on the project site by Dibblee or USGS/CGS (see Regional Geologic Maps in Appendix A). Because there are no identified landslides either on or trending into the project site, hazards associated with these phenomena are considered low.

ROCKFALL

Loose boulder-sized rocks and/or weathering bedrock outcrops located upslope from construction can lead to a rockfall hazard. Because the project site is located on a relatively flat alluvial plain with no nearby slopes, the potential for rockfall onto the project site appears to be low.

EARTHQUAKE-INDUCED FLOODING

Earthquake-induced flooding types include tsunamis, seiches, and reservoir failure. Because of the inland location of the project site, hazards from tsunamis and seiches are considered unlikely. Additionally, there are no reservoirs upstream of the project site. Therefore, earthquake-induced flooding is not considered a potential hazard at the project site.

OTHER FLOODING

The project site appears to be adjacent to, but not within any of the flood hazard areas mapped by Federal Emergency Management Agency (FEMA), FEMA Flood Map for Ventura County Unincorporated Areas, effective January 7, 2015, Map No. 06111C0932F.

INFILTRATION TESTING

On July 2 and 3 of 2019, four approximately 8-inch diameter infiltration borings (IT-1 through IT-4) were drilled to depths of about 4, 15, 7, and 18 feet, respectively, below the existing ground surface to determine the soil profile and allow installation of plastic casing for infiltration testing (see Site Plan in Appendix A for infiltration boring locations). All infiltration borings were bottomed into native Alluvium (see Logs of Borings in Appendix A).

After drilling was completed, 3-inch diameter slotted PVC casings were lowered into the boreholes. The annuli between the casings and boring walls were then filled with pea gravel. The falling-head borehole infiltration test procedure was used for infiltration testing. About 1 to 3 feet of water was added to the bottom of each of the holes to start the tests, and the drop in the water surface monitored by taking periodic measurements. Readings were taken at reasonable time intervals based on infiltrating rate, and after each of these intervals, water was added to return the water level to its original refill depth above the hole bottom for the next test interval. The tests were run until the infiltration rates were reasonably stable.

It should be noted that the rate the water surface drops in a borehole is a percolation rate, which is related to, but is not an infiltration rate. Percolation rate ignores the wetted soil surface area into which the water is infiltrating and does not account for the volume of water infiltrated. An infiltration rate considers both factors. Hence, percolation rates (in unit length per unit time) are an overestimation of infiltration rates (also in unit length per unit time). Earth Systems uses the Porchet equation to account for the wetted surface area and volume of water infiltrated to estimate an infiltration rate. Forms of the equation can be found in the Riverside County - Low Impact Development BMP Design Handbook (2001), the South Orange County Version, Technical Guidance Documents Appendices (2017), or in a paper by J.W. Van Hoorn, "Determining Hydraulic Conductivity with the Inversed Auger Hole and Infiltrometer Methods." The Porchet equation in its most simple form is the volume of water infiltrated divided by the product of the change in time and the wetted surface area. By substitution, the equation can be shown to be equal to:

$$\text{Infiltration Rate (inches /hr.)} = \frac{\Delta H * r * 60}{\Delta t * (r + 2H_{avg})}$$

where: ΔH = Change in water level (inches)
Δt = Change in time (minutes)
r = Radius of test hole (inches)
H_{avg} = Average height of water in test hole (inches)

The above equation does not account for the gravel pack in the annulus between the borehole wall and the slotted pipe fitted in the test hole. Ignoring the gravel pack inflates the amount of water infiltrated and, hence, yields an unconservative infiltration rate. A method

to account for the volume occupied by the gravel (and the slotted pipe) and adjust the infiltration rate accordingly is presented in Caltrans Test 750. Earth Systems makes this additional adjustment to our test data. The equation is:

$$\text{Correction Factor} = n * [\, 1 - (O/D)^2] + (I/D)^2$$

Where: n = Pea gravel porosity
O = Outside diameter of slotted pipe (inches)
D = Test hole diameter (inches)
I = Inside diameter of slotted pipe (inches)

Earth Systems has determined an average porosity for the pea gravel used in our testing. The other values are simple measurements.

Based on the infiltration testing results in Appendix F, the measured test infiltration rates for the depths tested and boring locations are summarized in the following table:

Boring	Boring Depth (feet)	Infiltration Rate (inch/hour)	Infiltration Rate (cm/s)
IT-1	4	0.02	0.00001
IT-2	15	0.03	0.00002
IT-3	7	0.22	0.00016
IT-4	18	0.12	0.00008

Please note that none of the tested rates is acceptable per the TGM because all the tested rates are slower than 0.5 inch/hour. There are many factors that influence the infiltration rate. Clear water was used in our tests, whereas deleterious material will likely be contained in the storm water. Variations in soil conditions within the limits of the proposed infiltration system will likely affect infiltration characteristics. The designer who utilizes the infiltration results should consider these factors, as well as apply a factor-of-safety to the infiltration rate to account for future disposal bed siltation.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data provided in this report, it appears that the project site is suitable for the proposed residential development from a geotechnical engineering standpoint provided that the recommendations provided herein are properly implemented into the project.

Earth Systems believes that a conventional footing system with slab-on-grade floors or post-tensioned slabs will be suitable to support the proposed residential development. Given the site conditions encountered, we conclude that remedial grading will be needed to provide a more uniform and moisture-conditioned subgrade. Soil expansion Indices and corrosion characteristics will need to be re-tested for every 4 to 5 lots at the completion of grading.

Infiltration systems appear problematic because of unacceptable infiltration in the clayey soils that blanket the project site. Note that the blanket of clayey soils is about 20 feet thick.

Specific conclusions and recommendations addressing these geotechnical considerations, as well as general recommendations regarding the geotechnical aspects of design and construction, are presented in the following sections.

A. Grading

1. Pre-Grading Considerations

   a. Roof draining systems, if required by the appropriate jurisdictional agency, should be designed so that water is not discharged into bearing soils or near structures.

   b. Final site grade should be designed so that all water is diverted away from the structures over paved surfaces, or over landscaped surfaces in accordance with current codes. Water should not be allowed to pond anywhere on the pad.

   c. Shrinkage of soils (uncertified fills) affected by compaction is estimated to be about 25 percent based on an anticipated average compaction of 92 percent.

   d. Earth Systems should be retained to provide geotechnical engineering services during site development and grading, and foundation construction phases of the work to observe compliance with the design concepts, specifications and recommendations. This will allow for timely design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

e. Plans and specifications should be provided to Earth Systems prior to grading. Plans should include the grading plans, foundation plans, and foundation details. Earth Systems will review these plans only for conformity with geotechnical parameters not including drainage. It is the responsibility of the Client and other Engineers to review and approve designs and plans for conformity with all engineering and design requirements necessary to the proper function and performance of the structure.

f. Compaction tests should be made to determine the relative compaction of the fills in accordance with the following minimum guidelines: two tests for each 1.5-foot vertical lift in every isolated area graded; one test for each 500 cubic yards of material placed; and two tests in each building pad.

2. Rough Grading/Areas of Development

a. Grading at a minimum should conform to the 2016 California Building Code.

b. The existing ground surface should be initially prepared for grading by removing all vegetation, trees, large roots, debris, other organic material and non-complying fill. Organics and debris should be stockpiled away from areas to be graded, and ultimately removed from the project site to prevent their inclusion in fills. Voids created by removal of such material should be properly backfilled and compacted. No compacted fill should be placed unless the underlying soil has been observed by the Geotechnical Engineer.

c. To provide a more uniform and moisture-conditioned pad, overexcavation and recompaction of soils in these construction areas will be necessary.

d. Soils should be overexcavated throughout the entire construction area to the greater depth of the following: 1) 2 feet below the bottom of footings; or 2) 3.5 feet below the finished pad grade. Overexcavation should be extended to a distance of at least 5 feet laterally, but not less than a distance equal to the depth of removal, beyond the outside edge of the foundation elements.

e. The bottoms of all excavations should be observed by a representative of Earth Systems prior to processing or placing fill.

f. The resulting surface(s) should then be scarified an additional 6 inches, uniformly moisture conditioned to about 140 percent of the optimum moisture content, and compacted to achieve a minimum relative compaction of 90 percent of the ASTM D 1557 maximum dry density. Compaction of the

prepared subgrade should be verified by testing prior to the placement of engineered fill.

g. Areas outside of the building to receive fill, exterior slabs-on-grade, sidewalks, or paving should be overexcavated to a minimum of 1 foot below finished pad grade. The resulting surfaces should then be scarified an additional 6 inches, moisture conditioned, and recompacted.

h. Voids created by dislodging cobbles and boulders (if any) during excavation should be backfilled and recompacted and the dislodged cobbles larger than 6 inches in diameter should be removed from the subgrade.

i. On-site soils may be used for fill once they are cleaned of all organic material, rocks, debris, and irreducible material larger than 6 inches.

j. Fill and backfill placed at about 140 percent of the optimum moisture in layers with a loose thickness not greater than 6 inches should be compacted to a minimum of 90 percent of the maximum dry density obtainable by the ASTM D 1557 test method unless otherwise recommended or specified by the Geotechnical Engineer or his/her representative. Random compaction tests by Earth Systems can assist the Grading Contractor in evaluating whether the Grading Contractor is meeting compaction requirements. However, compaction tests pertain only to a specific location and do not guaranty that all fill has been compacted to the prescribed percentage of maximum density. It is the ultimate responsibility of the Grading Contractor to achieve uniform compaction in accordance with the requirements of this report and the grading ordinance.

k. Import soils used (if any) to raise site grade should be equal to, or better than, on-site soils in strength, expansion, and compressibility characteristics. Import soil can be evaluated, but will not be prequalified by the Geotechnical Engineer. Final comments on the characteristics of the import will be given after the material is at the project site.

l. Based on the measured moisture contents, the excavated soils are likely to have in-place moisture contents well above the optimum moisture content (See Logs of Borings in Appendix A). As a result, it may be difficult to achieve a relative compaction of 90 percent of the maximum density following scarification of the upper 6 inches of subgrade exposed at the base of the remedial excavation. Stabilization of the excavation bottom will be required prior to placing fill if pumping soils are encountered. This can be accomplished

by various means. The first method would be drying the soils as much as possible through scarification and aeration. Another method is to work thin lifts of "6-inch minus" crushed angular rock into the excavation bottom with small equipment (such as a D-4) until stabilization is achieved. Use of a geotextile fabric such as Mirafi 500X, or Tensar TX-5, or an approved equivalent in combination with crushed rock, is another possible means of stabilizing the bottom. If this material is used, it should be laid on the excavation bottom and covered with approximately 12 inches of "3-inch minus" crushed angular rock prior to placement of filter fabric (until the bottom is stabilized). The rock should then be covered with a geotextile filter fabric before placing fill above. Unit prices should be obtained from the Contractor in advance for this work.

m. In landscape areas adjacent to the building, the 2016 CBC (Section 1803.3) requires a minimum gradient of 5% away from the edge of the building foundation for a minimum distance of 10 feet.

3. Utility Trenches

a. Utility trench backfill should be governed by the provisions of this report relating to minimum compaction standards. In general, on-site service lines may be backfilled with engineered fill compacted to 90 percent of the maximum density. Backfill of offsite service lines will be subject to the specifications of the jurisdictional agency or this report, whichever are greater.

b. Utility trenches running parallel to footings should be located at least 5 feet outside the footing line, or above a 1:1 (horizontal to vertical) projection downward from the outside edge of the bottom of the footing.

c. Compacted fills should be utilized for backfill. Clean sand backfill should be avoided under structures because it provides a conduit for water to migrate under foundations.

d. Backfill operations should be observed and tested by the Geotechnical Engineer to monitor compliance with these recommendations.

e. Rocks greater than 6 inches in diameter should not be placed in trench zones (from 12 inches below pavement subgrade or ground surface to 12 inches above top of pipe or box); rocks greater than 2.5 inches in diameter should not be placed in pipe zones (from 12 inches above top of pipe or box to 6 inches below bottom of pipe or box exterior).

f. Jetting should not be utilized for compaction in utility trenches.

g. Excavated soils are expected to be at high moisture contents, and drying may be necessary before replacing the excavated soils as compacted backfill. If water is present in trenches, backfilling should be with gravel to 6 inches above the water.

B. Structural Design

1. Conventional Shallow Foundations

a. Conventional continuous footings and/or interior pad footings supported by recompacted fill may be used to support structures. It should be noted that if pad footings are to be used, they should be tied together by grade beams (each way) or by slabs because of the expansiveness of the soils. Based on the tested expansion indices of 72 and 105, perimeter continuous and/or pad footings should have a minimum embedment depth of 27 inches, and interior pad footings should have a minimum embedment depth of 18 inches. The expansion index should be re-evaluated at the completion of rough grading to confirm that these minimum footing depths are appropriate.

b. Footings should be embedded into recompacted fill as recommended elsewhere in this report. Foundation excavations should be observed by a representative of this firm after excavation, but prior to placing of reinforcing steel or concrete, to verify bearing conditions.

c. Footings embedded 27 inches deep may be designed based on an allowable bearing value of 2,100 psf. This value includes a safety factor of 3. This allowable bearing value is net (weight of footing and soil surcharge may be neglected) and is applicable for dead plus reasonable live loads.

d. Bearing values may be increased by one-third when transient loads such as wind and/or seismicity are included.

e. Lateral loads may be resisted by soil friction on floor slabs and foundations and by passive resistance of the soils acting on foundation stem walls. Lateral capacity is based on the assumption that any required backfill adjacent to foundations and grade beams is properly compacted.

f. The information that follows regarding reinforcement and premoistening for footings is the same as that given in Table 1809.7 for the "High" expansion range. Actual footing designs should be provided by the project Structural Engineer, but the dimensions and reinforcement he recommends should not

be less than the criteria set forth in Table 1809.7 for the appropriate expansion range.

g. Continuous footings bottomed in soils in the "High" expansion range should be reinforced, at a minimum, with two No. 4 bars along the bottom and two No. 4 bars along the top. In addition, bent No. 3 bars on 24-inch centers should extend from within the footings to a minimum of 3 feet into adjacent slabs.

h. Presaturation of the subgrade soils should be according to the Table 1809.7 in Appendix C and the expansion indices tested at the completion of grading.

2. Slabs-on-Grade Floors

a. Concrete slabs on grade should be supported by firm recompacted fills as recommended elsewhere in this report.

b. Because the soils of the project site are in the “High” expansion range, perimeter of slabs-on-grade floors should have moisture cutoffs of at least 27 inches deep. Examples of moisture cutoffs include turned down edges of footings and/or slabs, and grade beams. It should be anticipated that exterior concrete supported on grade will be susceptible to movement with seasonal change in soil moisture content. The following recommendations for concrete slabs on grade can help mitigate, but not eliminate, such movement.

c. It is recommended that perimeter slabs (walkways, patios, etc.) be designed relatively independent of footing stems (i.e. free floating) so foundation adjustment will be less likely to cause cracking. Because the on-site soils are highly expansive, the exterior concrete slabs on grade should have turned-down edges of at least 8 inches into the soil.

d. The information that follows regarding design criteria for slabs is generally the same as that given in Table 1809.7 for the "High" expansion range. Actual slab designs should be provided by the project Structural Engineer, but the reinforcement and slab thicknesses he recommends should not be less than the criteria set forth in Table 1809.7 for the appropriate expansion range, or as recommended below, whichever is more stringent.

e. Slabs bottomed on soils in the "High" expansion range should be underlaid with a minimum of 4 inches of sand. Areas where floor wetness would be undesirable should be underlaid with a vapor retarder (as specified by the Project Architect or Civil Engineer) to reduce moisture transmission from the

subgrade soils to the slab. The retarder should be placed as specified by the project Structural Engineer or Architect.

f. Slabs bottomed on soils in the "High" expansion range should at a minimum be reinforced at mid-slab with No. 3 bars on 24-inch centers, each way. No. 3 bars embedded 12-inch in footing and on 24-inch center acting as dowels should also extend out of the perimeter footings, and should be bent so that they extend a minimum of 3 feet into adjacent slabs.

g. Soils underlying slabs that are in the "High" expansion range should be premoistened to about 140 percent of the optimum moisture content to a depth of 33 inches below lowest adjacent grade.

h. Premoistening of slab areas should be observed and tested by this firm for compliance with these recommendations prior to placing of sand, reinforcing steel, or concrete.

3. Post-Tensioned Slabs

a. Post-tensioned slabs can be used to support the proposed residential construction. The following design criteria should be incorporated into the design by the Project Structural engineer. The foundations should be supported by compacted fill. We recommend that a post-tensioned slab be designed for soils in the “High” expansion range.

b. Earth Systems used PTI method (both Atterberg Limit method and Expansion Index method) to design the foundation; the more conservative results are included in the following table:

Thornthwaite Moisture Index	-20
Edge Moisture Variation Distance (e_m)	
Center Lift Condition	7.5 feet
Edge Lift Condition	4.0 feet
Estimated Differential Swell (y_m)	
Center Lift Condition	-0.52 inches
Edge Lift Condition	1.29 inches

c. A bearing value of 1,000 psf may be used for slabs situated on 4 inches of sand over compacted subgrade soils. A bearing capacity of 2,100 psf may be used for 27-inch deep footings.

d. To minimize moisture variations near the edges of slabs, we recommend that the perimeter beams be bottomed no less than 27 inches below lowest adjacent grade.
e. Slab areas should be underlaid with a minimum of 4 inches of sand. A vapor retarder should be placed on the subgrade (i.e., at the base of the sand layer) to reduce upward moisture transmission from the subgrade soils to the slab. the sand above the vapor retarder should be lightly moistened just prior to placing concrete.
f. Slab subgrade soils should be premoistened to above the optimum moisture content to a depth of 33 inches below lowest adjacent grade. Premoistening should be confirmed by testing.

4. Frictional and Lateral Coefficients
   a. Resistance to lateral loading may be provided by soil friction acting on the base of foundations. A coefficient of friction of 0.58 may be applied to dead load forces. This value does not include a safety factor.
   b. Passive resistance acting on the sides of foundation stems equal to 335 pcf of equivalent fluid weight may be included for resistance to lateral load. This value does not include a safety factor.
   c. A minimum safety factor of 1.5 should be used when designing for sliding or overturning.
   d. Passive resistance may be combined with frictional resistance provided that a one-third reduction in the coefficient of friction is used.

5. Retaining Walls
   a. Conventional cantilever retaining walls should not be backfilled with on-site soils because of the expansion potential of those soils. Walls that are backfilled at a 1:1 projection upward from the heels of the wall footings with crushed rock or non-expansive sand, may be designed for active pressures of 38 pcf of equivalent fluid weight for well-drained, level backfill; or 47 pcf of equivalent fluid weight for 2 horizontal versus 1 vertical backfill. An 18-inch thick cap of compacted native soils should be placed above the rock or sand. Filter fabric should be placed between the rock or sand and native soils and/or backfill over the top.

b. Restrained retaining walls should not be backfilled with on-site soils because of the expansion potential of those soils. Walls that are backfilled at a 1:1 projection upward from the heels of the wall footings with crushed rock or non-expansive sand may be designed for at-rest pressures of 58 pcf of equivalent fluid weight for well-drained, level backfill. An 18-inch thick cap of compacted native soils should be placed above the rock or sand. Filter fabric should be placed between the rock or sand and native soils and/or backfill over the top.

c. The pressures listed above were based on the assumption that backfill soils will be compacted to 90 percent of the maximum dry density as determined by the ASTM D 1557 Test Method.

d. Retaining walls will need to be designed for a seismic loading force that is applied in addition to the static forces when seismic shaking occurs if they retain more than 6 feet of soil. Seismic increments of earth pressure can be determined using 25 and 38 pcf of additional equivalent fluid weight need to be considered for cantilever and restrained retaining walls, respectively, if the proposed retaining walls will retain more than 6 feet of soil. These equivalent fluid weights have been determined by a procedure presented by Al Atik and Sitar (2010). The seismic increment of pressure can be assumed to be distributed so that the centroid of pressure acts at 0.33H above the base of a retaining wall, where H is the wall height in feet. Because this seismic force is transient, and in accordance with CBC Section 1807.2.3, a minimum safety factor of 1.1 may be used for sliding and overturning when seismic loads are included.

e. The lateral earth pressure to be resisted by the retaining walls or similar structures should also be increased to allow for any other applicable surcharge loads. The surcharges considered should include forces generated by any structures or temporary loads that would influence the wall design.

f. A system of backfill drainage should be incorporated into retaining wall designs. Backfill comprising the drainage system immediately behind retaining structures should be free-draining granular material with a filter fabric between it and the rest of the backfill soils. As an alternative, the backs of walls could be lined with geodrain systems. The backdrains should extend from the bottoms of the walls to about 18 inches from finished backfill grade.

Waterproofing may aid in reducing the potential for efflorescence on the faces of retaining walls.

g. Compaction on the uphill sides of walls within a horizontal distance equal to one wall height should be performed by hand-operated or other lightweight compaction equipment. This is intended to reduce potential "locked-in" lateral pressures caused by compaction with heavy grading equipment.

h. Water should not be allowed to pond near the tops of retaining walls. To accomplish this, final backfill site grades should be such that all water is diverted away from retaining walls.

6. Settlement Considerations

a. A maximum settlement (static and seismic combined) of about 2 inches is anticipated for foundations and floor slabs supported by recompacted fill as recommended.

b. Differential settlement between adjacent load bearing members could be about one-half the maximum settlement.

c. The Project Structural Engineer will need to design the foundation system to accommodate the potential settlement values.

7. Preliminary Asphalt Paving Sections

Two Resistance ("R") Value tests were conducted on two bulk samples obtained onsite. The tests were performed in accordance with California Method 301. Three specimens at different moisture contents were tested, and the R-Values at 300 psi exudation pressure were determined from the plotted results. R-Values of 2 and 3 were measured (see R-Value testing results in Appendix B).

The following preliminary paving sections table summarizes thicknesses of asphalt and Class II base required for different traffic indices (ranging from 4.0 to 8.0, with 0.5 intervals) using the more conservative tested R-Value of 2. Asphalt and Class II base should be compacted to a minimum of 95 percent of maximum dry density on subgrade soils compacted to a minimum of 90 percent of maximum dry density.

Traffic Index	Asphalt Thickness (inches)	Min. Aggregate Base Thickness (inches)
4.0	3.0	7.0
4.5	3.0	8.5
5.0	3.0	10.5

5.5	3.0	12.0
6.0	3.0	14.0
6.5	3.0	16.0
7.0	3.0	18.0
7.5	3.5	20.0
8.0	5.0	18.5

The preliminary paving sections table provided above has been designed for the type of traffic indicated. If the pavement is placed before construction on the project is complete, construction loads, which could increase the traffic indices above those assumed above, should be taken into account. Also, subgrade R-Values should be reevaluated at or near the end of rough grading so that final pavement designs can be made.

ADDITIONAL SERVICES

This report is based on the assumption that an adequate program of monitoring and testing will be performed by Earth Systems during construction to check compliance with the recommendations given in this report. The recommended tests and observations include, but are not necessarily limited to the following:

- Review of the building and grading plans during the design phase of the project.
- Observation and testing during site preparation, grading, placing of engineered fill, and foundation construction.
- Consultation as required during construction.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

The analyses and recommendations submitted in this report are based in part upon the data obtained from the onsite borings and CPT soundings. The nature and extent of variations beyond the points of exploration may not become evident until construction. If variations then appear evident, it will be necessary to reevaluate the recommendations of this report.

The scope of services did not include any environmental assessment or investigation for the presence or absence of wetlands, hazardous or toxic materials in the soil, surface water,

groundwater or air, on, below, or around this site. Any statements in this report or on the soil boring logs regarding odors noted, unusual or suspicious items or conditions observed, are strictly for the information of the client.

Findings of this report are valid as of this date; however, changes in conditions of a property can occur with passage of time whether they are because of natural processes or works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur whether they result from legislation or broadening of knowledge. Accordingly, findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of 1 year.

In the event that any changes in the nature, design, or location of the proposed construction and/or other improvements are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

This report is issued with the understanding that it is the responsibility of the Owner, or of his representative to ensure that the information and recommendations contained herein are called to the attention of the Architect and Engineers for the project and incorporated into the plan and that the necessary steps are taken to see that the Contractor and Subcontractors carry out such recommendations in the field.

As the Geotechnical Engineers for this project, Earth Systems has striven to provide services in accordance with generally accepted geotechnical engineering practices in this community at this time. No warranty or guarantee is expressed or implied. This report was prepared for the exclusive use of the Client for the purposes stated in this document for the referenced project only. No third party may use or rely on this report without express written authorization from Earth Systems for such use or reliance.

It is recommended that Earth Systems be provided the opportunity for a general review of final design and specifications in order that earthwork and foundation recommendations may be properly interpreted and implemented in the design and specifications. If Earth Systems is not accorded the privilege of making this recommended review, it can assume no responsibility for misinterpretation of the recommendations contained herein.

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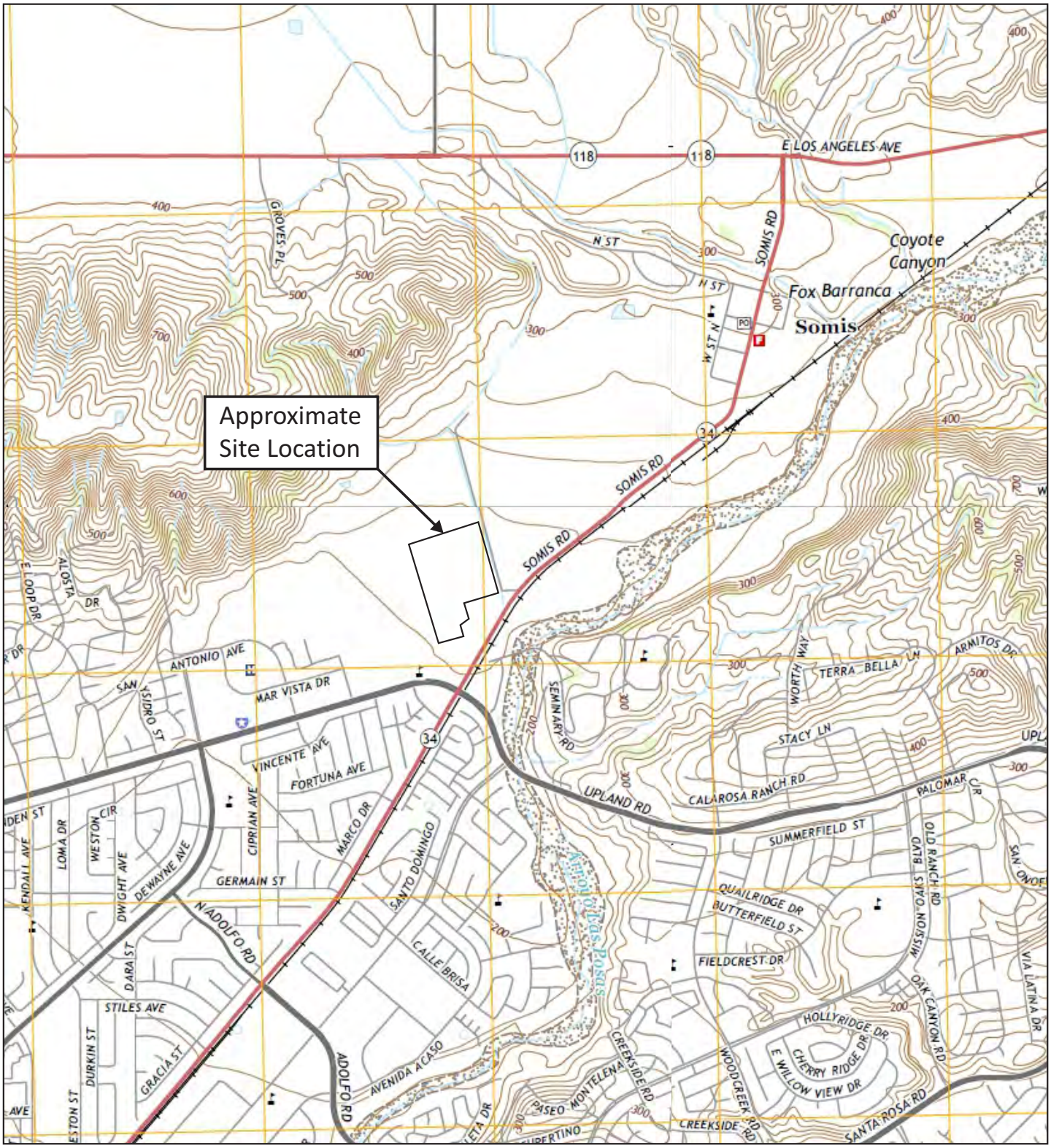
APPENDIX A

Vicinity Map
Regional Geologic Map 1 (Dibblee)
Regional Geologic Map 2 (USGS/CGS [SCAMP])
Seismic Hazard Zones Map
Historical High Groundwater Map
Site Plan
Field Study
Logs of Borings
Logs of CPT Soundings and Interpretations
Boring Log Symbols
Unified Soil Classification System



*Taken from USGS Topo Maps, Newbury Park, Moorpark, Santa Paula, and Camarillo Quadrangles, California, 2015.

Approximate Scale: 1" = 2,000'

0 2,000' 4,000'

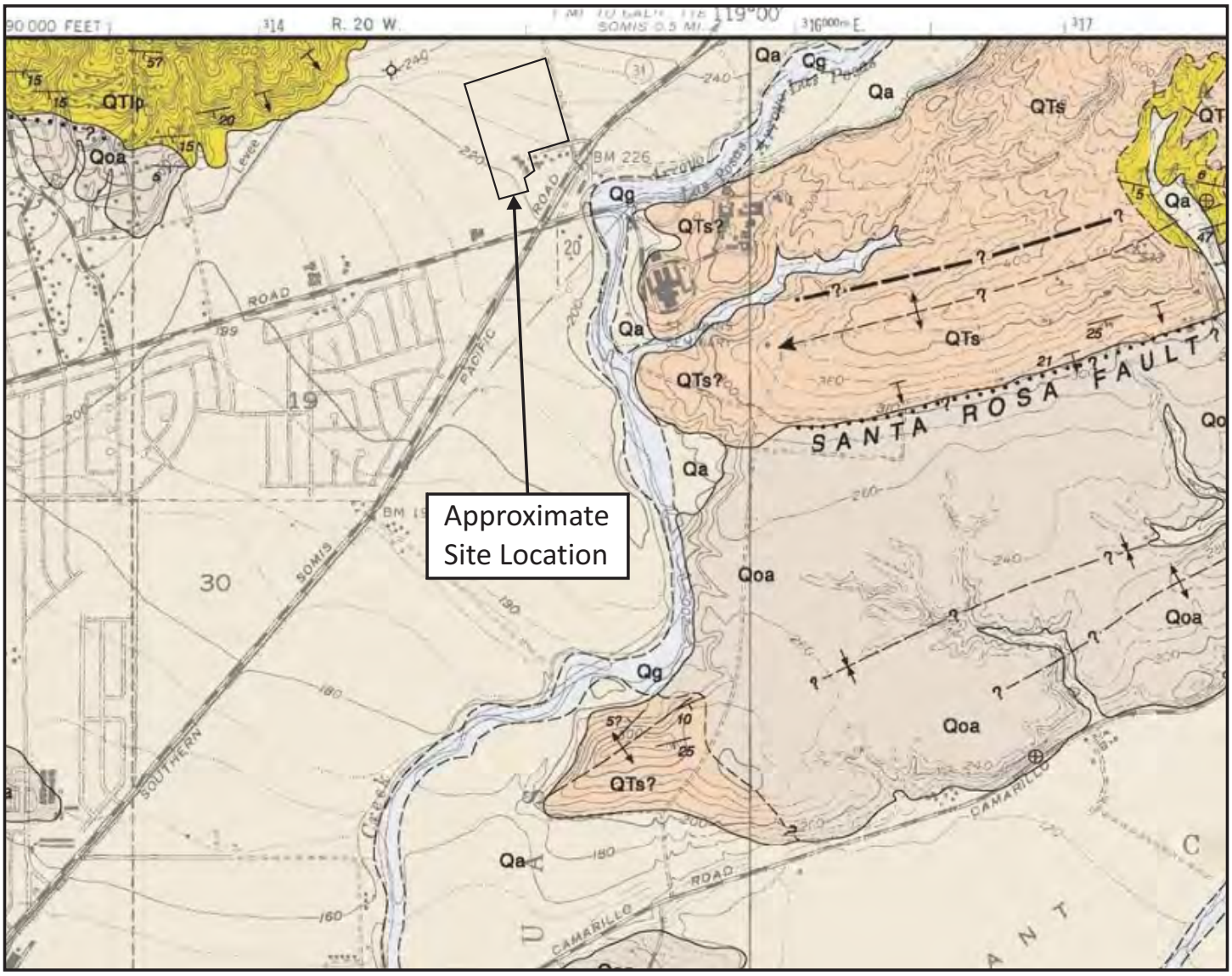
N

VICINITY MAP

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001



*Taken from Dibblee, Jr., Geologic Map of The Camarillo and Newbury Park Quadrangles, Ventura County, California, 1990, DF-28.

GEOLOGIC SYMBOLS

not all symbols shown on each map

FORMATION CONTACT dashed where inferred or indefinite, dotted where concealed

MEMBER CONTACT between units of a formation; ····· Prominent bed

CONTACT BETWEEN SURFICIAL SEDIMENTS located only approximately in places

FAULT: Dashed where indefinite or inferred, dotted where concealed, queried where existence is doubtful. Parallel arrows indicate inferred relative lateral movement. Relative vertical movement is shown by U/D (U=upthrown side, D=downthrown side). Short arrow indicates dip of fault plane. Sawteeth are on upper plate of low angle thrust fault.

FOLDS: overturned ANTICLINE SYNCLINE

arrow on axial trace of fold indicates direction of plunge; dotted where concealed by surficial sediments

Strike and dip of sedimentary rocks: inclined; inclined (approximate); overturned; horizontal; vertical

Strike and dip of metamorphic or igneous rock foliation or flow banding or compositional layers: inclined; inclined (approximate); vertical; overturned

OTHER SYMBOLS: Direction of landslide movement; outline of water bodies shown on map; water well; oil well; springs

LEGEND

af / Qg / Qf / Qa

SURFICIAL SEDIMENTS

af *Artificial fill*
Qg *Stream channel sand and gravel*
Qf *Alluvial fan gravel and sand, locally slightly indurated*
Qa *Alluvium: gravel, sand and clay of flatlands*

Approximate Scale: 1" = 2,000’

0 2,000’ 4,000’

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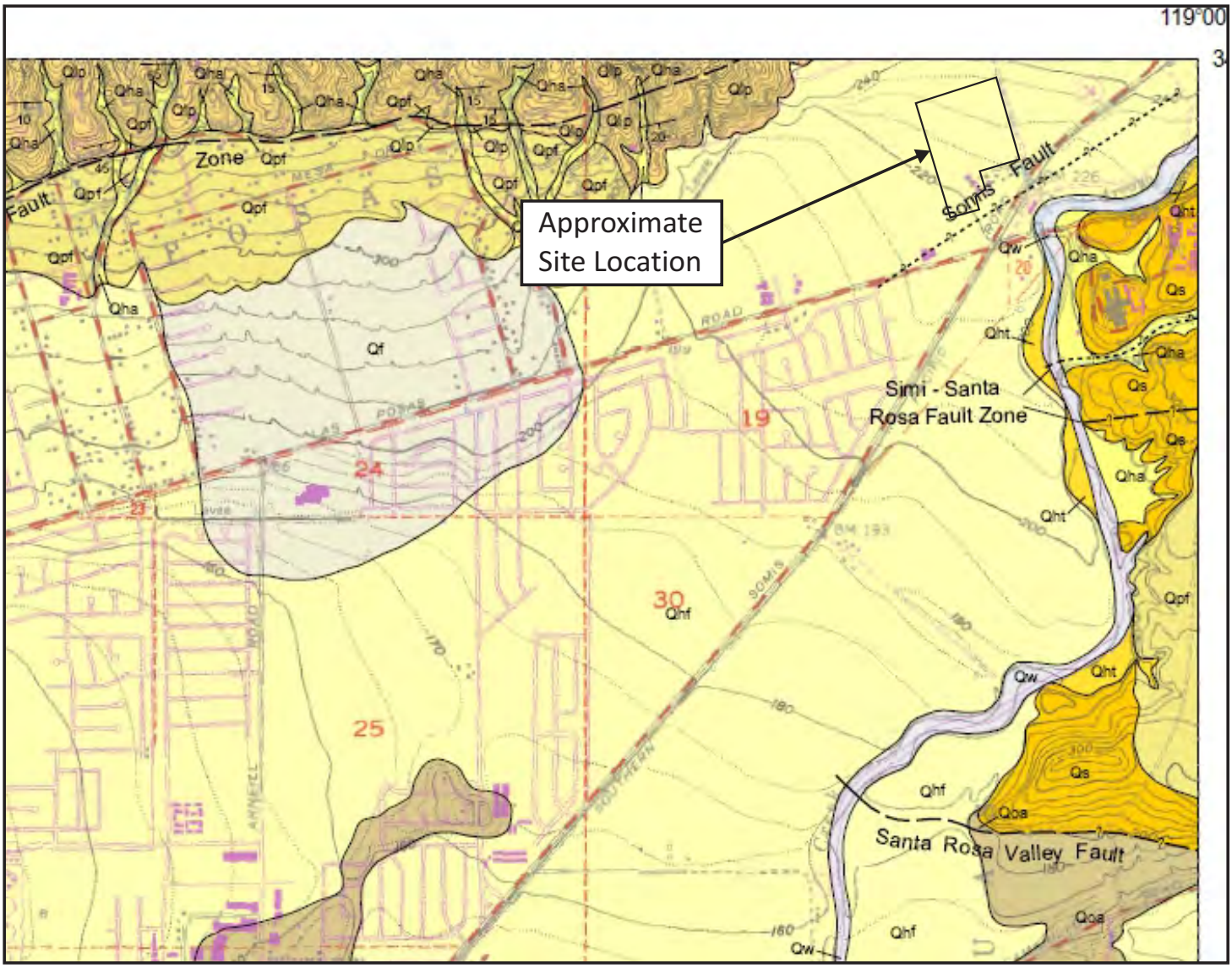
REGIONAL GEOLOGIC MAP 1

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001



*Taken from USGS, SCAMP Geologic Map of the Camarillo 7.5' Quadrangle, Ventura County, California, 2004.

MAP SYMBOLS

- Contact between map units - Generally approximately located or inferred, dotted where concealed.
- Contact between similar map units of different relative age - Recognized by scour and incised channelling features. Generally approximately located.
- Fault - Generally approximately located or inferred, dotted where concealed, queried where location is uncertain.
- Axis of anticline
- Axis of syncline
- Strike and dip of bedding.
- Landslide - Arrows indicate principal direction of movement, queried where existence is questionable (some geologic features are drawn within questionable landslides); hachured where headscarp is mappable.

Southern California USGS SCAMP CDMG Areal Mapping Project

N

Qhf: Alluvial fan deposits (Holocene)

Approximate Scale: 1" = 2,000'

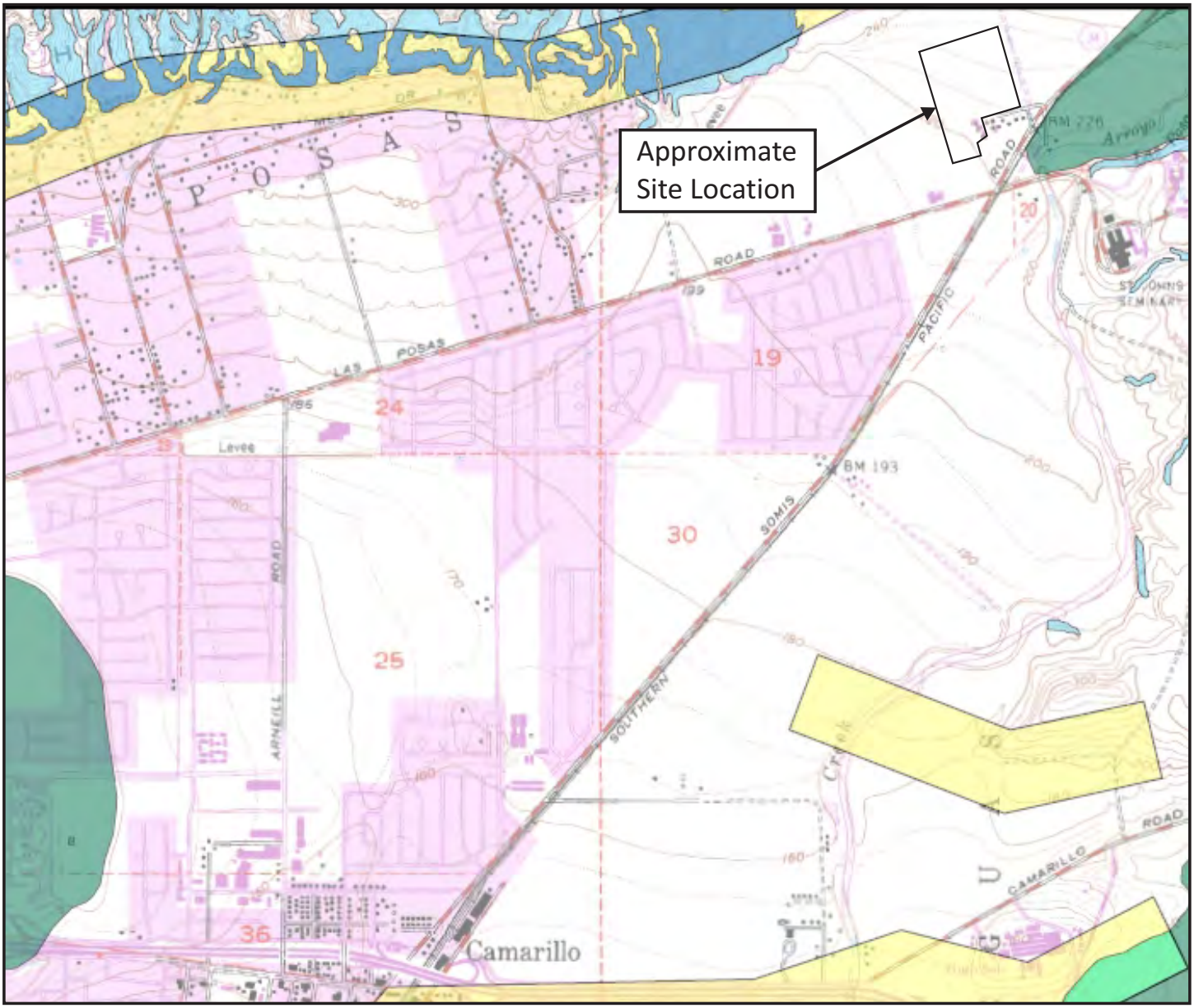
0 2,000' 4,000'

REGIONAL GEOLOGIC MAP 2

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001



EARTHQUAKE FAULT ZONES

Delineated in compliance with
Chapter 7.5 Division 2 of the California Public Resources Code
(Alquist-Priolo Earthquake Fault Zoning Act)

OFFICIAL MAP

Released: May 1, 1998

SEISMIC HAZARD ZONES

Delineated in compliance with
Chapter 7.8 Division 2 of the California Public Resources Code
(Seismic Hazards Mapping Act)

OFFICIAL MAP

Released: February 7, 2002

OVERLAPPING EARTHQUAKE FAULT AND SEISMIC HAZARD ZONES

Overlap of Earthquake Fault Zone and Liquefaction Zone
Areas that are covered by both Earthquake Fault Zone and Liquefaction Zone.

Overlap of Earthquake Fault Zone and Earthquake-Induced Landslide Zone
Areas that are covered by both Earthquake Fault Zone and Earthquake-Induced Landslide Zone.

Note: Mitigation methods differ for each zone –
AP Act only allows avoidance; Seismic Hazard Mapping Act allows mitigation by engineering/geotechnical design as well as avoidance.

Approximate Scale: 1" = 2,000'

0 2,000' 4,000'

N

SEISMIC HAZARD ZONES MAP

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001

*Taken from CGS, Seismic Hazard Zone Report For The Camarillo 7.5-Minute Quadrangle, Ventura County, California, 2002.

30 Depth to historically highest ground water level in feet

Valley / Mountains Boundary

Groundwater Barrier

Borehole Site

Approximate location of sand boils and lurch cracks observed following the Point Mugu Earthquake of February 21, 1973.

Approximate Scale: 1" = 2,000'

0 2,000' 4,000'

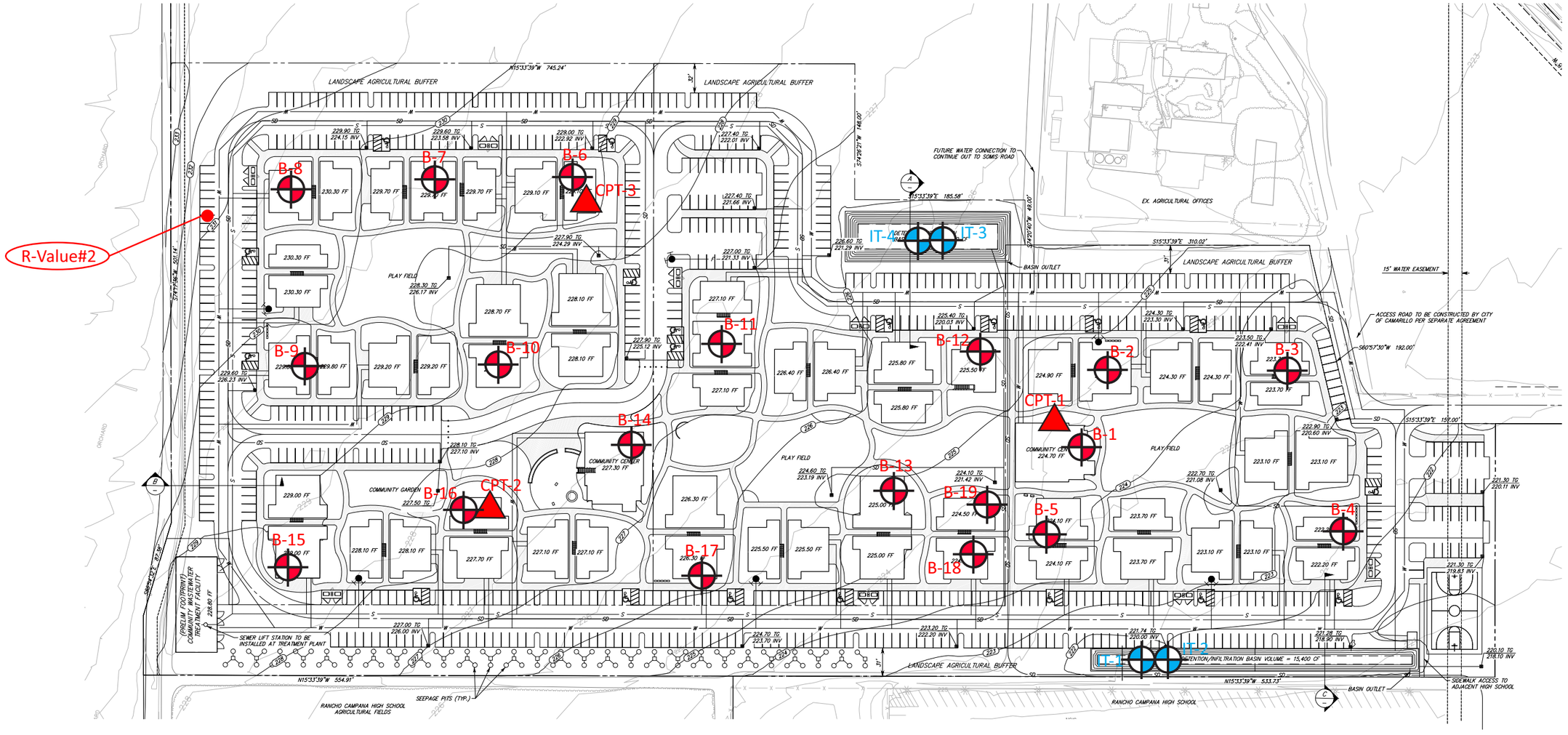
N

HISTORICAL HIGH GROUNDWATER MAP

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001



B-19
: Approximate boring locations.

IT-4
: Approximate infiltration testing locations.

CPT-3
: Approximate Cone Penetrometer Test (CPT) sounding locations.

N

Approximate Scale: 1" = 120'

0 120' 240'

SITE PLAN

Somis Ranch Farmworker Housing
Camarillo Area of Ventura County, California

Earth Systems

September 2019	302947-001

FIELD STUDY

A. Twenty-three borings (B-1 through B-19 and IT-1 through IT-4) were drilled to depths ranging from approximately 16.5 to 61.5 feet below the existing ground surface to observe the soil profile and to obtain samples for laboratory analyses, and in IT-1 through IT-4 to perform infiltration tests. The borings were drilled on March 25 and 26, June 27 and 28, and July 1, 2, and 3, of 2019, using 8-inch diameter hollow-stem continuous flight auger powered by a CME-85 truck mounted drilling rig. The approximate locations of the borings were determined in the field by pacing and sighting, and are shown on the Site Plan in this Appendix.

B. Samples were obtained within the borings with a Modified California (M.C.) ring sampler (ASTM D 3550 with shoe similar to ASTM D 1586), and with a Standard Penetration Test (SPT) sampler (ASTM D 1586). The M.C. sampler has a 3-inch outside diameter, and a 2.42-inch inside diameter when used with brass ring liners (as it was during this study). The SPT sampler has a 2.00-inch outside diameter and a 1.37-inch inside diameter, but when used without liners, as was done for this project, the inside diameter is 1.63 inches. The samples were obtained by driving the samplers with a 140-pound hammer dropping 30 inches in accordance with ASTM D 1586. The hammer was operated with an automatic trip mechanism.

C. Four bulk sample was collected from the cuttings of the soils encountered between the depths of 0 and 5 feet in Borings B-1, B-8, B-11, and B-15.

D. On March 28 and June 24 of 2019, three Cone Penetrometer Test (CPT) soundings (CPT-1 through CPT-3) were performed to obtain information pertaining to the soil profile. The CPT soundings were performed using equipment owned and operated by Middle Earth Geo Testing. During advancement of the cone penetrometer, readings of sleeve friction (in tons per square foot), tip resistance (also in tons per square foot), and friction ratio (in percent) were recorded at 0.05-meter intervals as per ASTM D 5778 and ASTM D 3441. The approximate locations of the test soundings were determined in the field by pacing and sighting, and are shown on the Site Plan in this Appendix.

E. The final logs of the borings represent interpretations of the contents of the field logs and the results of laboratory testing performed on the samples obtained during the subsurface study. The final logs, as well as the interpretations of the CPT soundings, are included in this Appendix.

Logs of Borings

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-1
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: March 25, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0	X			2/3/5		CL	80.1	29.9	**ALLUVIUM:** Olive brown silty clay; minor sand; medium stiff; moist.
5				2/3/5		CL	77.6	28.6	Same as above.
10				2/4/5		CL	80.1	34.5	**ALLUVIUM:** Olive brown sandy silty clay; medium stiff; very moist.
15				3/5/6		CL	84.2	31.2	**ALLUVIUM:** Olive brown sandy silty clay; stiff; very moist.
20				5/9/11		CL	97.7	21.5	
						ML			**ALLUVIUM:** Olive brown clayey silt; fine gravel; stiff; moist.
25				5/9/12		ML	92.5	27.4	**ALLUVIUM:** Pale olive brown clayey silt; very stiff; moist.
30				3/5/5		CL	86.5	31.4	**ALLUVIUM:** Olive brown silty clay; mica; medium stiff; very moist.
35				9/11/11		SM	97.2	18.5	**ALLUVIUM:** Pale yellowish brown silty sand; thin gravel lenses; medium dense; damp.

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-1 (Continued)
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: March 25, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
40			■	10/18/32		SP	103.0	5.1	**ALLUVIUM:** Pale yellowish brown poorly-graded sand; medium dense; damp.
45			■	15/22/29		GM	110.0	7.8	**ALLUVIUM:** Yellowish brown silty gravel; dense; damp.
50			■	17/28/39		SP	100.3	4.9	**ALLUVIUM:** Pale yellowish fine poorly-graded sand; dense; damp to moist.
55									Total Depth: 51.5 feet. No Groundwater Encountered.
60									
65									
70									
75									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-2
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: March 25, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
			■	2/4/2		CL	76.8	29.2	**ALLUVIUM:** Olive brown silty clay; minor sand; medium stiff; moist.
5			■	3/4/5		CL	78.0	26.4	**ALLUVIUM:** Olive brown silty clay; minor sand; medium stiff; moist.
10			■	3/3/5		CL	81.4	32.1	**ALLUVIUM:** Olive brown sandy silty clay; medium stiff; moist.
15			■	3/4/6		CL	88.0	26.7	**ALLUVIUM:** Olive brown sandy silty clay; medium stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-3
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: March 25, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0	X								
			■	3/3/4		CL	85.5	30.3	**ALLUVIUM:** Olive brown silty clay; minor sand; medium stiff; moist.
5			■	3/6/7		CL	87.4	27.0	**ALLUVIUM:** Olive brown silty clay; minor sand; stiff; moist.
10			■	2/3/6		CL	96.8	22.4	**ALLUVIUM:** Olive brown sandy silty clay; medium stiff; moist.
15			■	3/6/6		CL	92.3	25.1	**ALLUVIUM:** Olive brown sandy silty clay; stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-4
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: March 26, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
			■	3/3/4		CL	77.1	27.5	**ALLUVIUM:** Olive brown silty clay; minor sand; medium stiff; moist.
5			■	2/3/6		CL	83.5	30.1	**ALLUVIUM:** Olive brown silty clay; minor sand; medium stiff; moist.
10			■	4/7/12		CL	111.8	13.1	**ALLUVIUM:** Olive brown sandy silty clay; stiff; moist.
15			■	3/5/7		CL	88.2	24.9	**ALLUVIUM:** Dark olive brown sandy silty clay; stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-5
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: March 26, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
			■	2/3/5		CL	75.9	32.7	**ALLUVIUM:** Olive brown silty clay; minor sand; medium stiff; moist.
5			■	2/4/6		CL	69.7	35.3	**ALLUVIUM:** Olive brown silty clay; minor sand; medium stiff; moist.
10			■	2/4/5		CL	76.8	36.3	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist.
15			■	3/6/8		CL	97.1	30.7	**ALLUVIUM:** Olive brown silty clay; minor caliche; stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-6
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 27, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
			■	3/4/5		CL	78.0	30.2	**ALLUVIUM**: Olive brown silty clay with minor sand; medium stiff; moist.
5			■	3/3/4		CL	78.7	29.1	**ALLUVIUM**: Olive brown silty clay with minor sand; medium stiff; moist.
10			■	2/2/4		CL	82.4	31.5	**ALLUVIUM**: Olive brown silty clay; medium stiff; moist.
15		■		2/2/3		CL			**ALLUVIUM**: Olive brown silty clay with some caliche; medium stiff; moist
20			■	4/5/7		CL			**ALLUVIUM:** Olive brown silty clay with sand and some caliche; medium stiff; moist.
25		■		2/3/3		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand; medium stiff; moist.
30			■	10/10/10		SM			**ALLUVIUM:** Dark yellow brown silty fine sand; medium dense; moist.
35		■		3/6/8		SM/ ML			**ALLUVIUM:** Interbedded dark yellow brown silty fine sand and sandy silt; medium dense; moist.

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-6 (Continued)
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 27, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
40			■	10/9/14		SM			**ALLUVIUM:** Yellow silty fine sand; medium dense; damp.
45		■		3/4/2		SM/ ML			**ALLUVIUM:** Highly interbeded yellow brown silty fine sand and sandy silt; loose; moist; 2-3 inch lenses.
50			■	10/10/12		SM/ ML			**ALLUVIUM:** Highly interbedded yellow brown silty fine sand and sandy silt; thicker sand lenses (approximatley 6"); medium dense; moist.
55									Total Depth: 51.5 feet. No Groundwater Encountered.
60									
65									
70									
75									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-7
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 27, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
			■	3/4/4		CL	77.6	30.4	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist.
5			■	3/4/5		CL	82.4	27.5	**ALLUVIUM:** Dark yellow brown; silty clay with sand; medium stiff; moist.
10			■	2/3/3		CL	80.4	32.0	**ALLUVIUM:** Olive brown silty clay with sand; medium stiff; moist.
15		■		1/3/3		CL			**ALLUVIUM:** Olive brown silty clay with sand; medium stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-8
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 27, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0	X			2/2/3		CL	80.0	27.6	**ALLUVIUM:** Olive brown; silty clay with sand; soft; moist.
5	X			2/3/5		CL	80.2	29.0	**ALLUVIUM:** Dark yellow brown; silty clay with sand; medium stiff; moist.
10				2/4/4		CL	80.2	32.2	**ALLUVIUM:** Dark yellow brown silty clay with sand; medium stiff; moist.
15				1/1/3		CL			**ALLUVIUM:** Dark yellow silty clay with sand with some caliche; soft; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-9
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 27, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
			■	3/3/4		CL	77.9	31.8	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist.
5			■	3/4/6		CL	79.5	27.5	**ALLUVIUM:** Dark yellow brown silty clay with sand, medium stiff; moist.
10			■	3/4/4		CL	85.3	27.0	**ALLUVIUM:** Olive brown silty clay with sand; medium stiff; moist.
15		■		2/2/3		CL			**ALLUVIUM:** Dark yellow brown silty clay with some caliche; medium stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-10
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 27, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
			■	2/3/5		CL	76.5	28.9	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist.
5			■	2/4/6		CL	84.0	28.2	**ALLUVIUM:** Dark olive brown silty clay; medium stiff, moist.
10			■	2/4/5		CL	86.7	27.8	**ALLUVIUM:** Yellow brown silty clay; medium stiff; moist.
15		■		3/6/8		CL			**ALLUVIUM:** Yellow brown silty clay with sand and some caliche; stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-11
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 27, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						CL			**ALLUVIUM:** Olive brown silty clay; dry.
				2/4/4		CL	77.4	32.3	**ALLUVIUM:** Olive brown, silty clay; medium stiff; moist.
5				2/4/6		CL	82.4	30.6	**ALLUVIUM:** Dark yellow brown silty clay with minor caliche; medium stiff; moist.
10				2/4/4		CL	78.7	36.6	**ALLUVIUM:** Dark yellow brown silty clay with sand and minor caliche; medium stiff; moist.
15				1/2/3		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand and minor caliche; medium stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-12
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 28, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						CL			**ALLUVIUM:** Olive brown silty clay**.**
			■	3/3/5		CL	78.4	33.9	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist.
5			■	2/5/6		CL	83.6	28.2	**ALLUVIUM:** Dark yellow brown silty clay; stiff; moist.
10			■	3/4/6		CL	79.1	35.7	**ALLUVIUM:** Dark yellow brown silty clay; medium stiff; moist.
15		■		2/3/4		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand and some caliche; medium stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-13
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 28, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
			■	3/4/5		CL	74.9	33.7	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist.
5			■	3/5/6		CL	83.4	31.8	**ALLUVIUM:** Olive brown silty clay; stiff; moist.
10			■	1/4/6		CL	79.3	33.3	**ALLUVIUM:** Yellow brown silty clay with sand; medium stiff; moist.
15			■	3/3/5		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand; medium stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-14
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 28, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
			■	3/3/4		CL	71.3	30.6	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist**.**
5			■	2/3/6		CL	79.0	34.3	**ALLUVIUM**: Olive brown silty clay; medium stiff; moist.
10			■	4/7/12		CL	81.4	32.2	**ALLUVIUM:** Dark yellow brown silty clay with sand; stiff; moist.
15		■		3/5/7		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand; stiff; moist**.**
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-15
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 28, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
	X			2/4/5		CL	75.2	29.6	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist.
5	X			3/5/7		CL	82.2	29.8	**ALLUVIUM:** Olive brown silty clay with minor sand; stiff; moist.
10				3/3/5		CL	78.5	35.2	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist.
15				2/2/4		CL			**ALLUVIUM:** Dark yellow brown silty clay with some caliche; medium stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-16
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 28, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
			■	3/3/3		CL	71.3	32.3	**ALLUVIUM:** Mottled yellow brown and olive brown silty clay; medium stiff; moist.
5			■	2/5/6		CL	78.9	31.8	**ALLUVIUM:** Olive brown silty clay; stiff; moist
10			■	3/4/5		CL	81.3	32.0	**ALLUVIUM:** Dark yellow brown silty clay with sand; medium stiff; moist.
15		■		2/3/3		CL			**ALLUVIUM:** Dark yellow brown silty clay with some caliche; medium stiff; moist.
20			■	3/4/7		CL			**ALLUVIUM:** Dark yellow brown silty clay with some caliche; stiff; moist.
25		■		1/2/5		ML			**ALLUVIUM:** Dark yellow brown sandy silt; medium stiff; moist.
30			■	4/6/10		SM			**ALLUVIUM**: Yellow brown silty fine sand; medium dense; moist.
35		■		2/3/4		ML			**ALLUVIUM:** Dark brown silt; medium stiff; moist.

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-16 (Continued)
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 28, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
40			■	5/8/12		ML/ SM			**ALLUVIUM:** Dark yellow brown interbedded sandy silt and silty fine sand; stiff; moist.
45		■		4/6/6		ML/ SM			**ALLUVIUM:** Interbedded yellow brown sandy silt and silty fine sand; stiff; moist.
50			■	6/9/13		ML			**ALLUVIUM**: Dark yellow brown sandy silt; very stiff; very moist.
55									Total Depth: 51.5 feet. No Groundwater Encountered.
60									
65									
70									
75									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-17
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 28, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									**ALLUVIUM:** Olive brown silty clay; dry.
			■	2/3/3		CL	78.6	31.8	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist.
5			■	2/4/6		CL	76.7	34.4	**ALLUVIUM**: Olive brown silty clay; medium stiff; moist.
10			■	2/4/4		CL	81.7	32.1	**ALLUVIUM:** Dark yellow brown silty clay with sand; medium stiff; moist.
15			■	2/2/3		CL			**ALLUVIUM:** Dark yellow brown silty clay; soft; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-18
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: June 28, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									**ALLUVIUM**: Olive brown silty clay.
			■	2/3/4		CL	74.5	33.7	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist.
5			■	2/4/4		CL	77.6	34.7	**ALLUVIUM:** Olive brown silty clay; medium stiff; moist.
10			■	3/4/5		CL	84.3	30.1	**ALLUVIUM:** Dark yellow brown silty clay with some caliche; medium stiff; moist.
15			■	3/3/5		CL			**ALLUVIUM:** Dark yellow brown silty clay with some caliche; medium stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: B-19
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 1, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6")	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									**ALLUVIUM:** Olive brown silty clay.
			■	2/3/5		CL	76.0	36.4	**ALLUVIUM:** Olive brown silty clay with sand; medium stiff; moist.
5			■	2/4/6		CL	79.1	31.0	**ALLUVIUM**: Olive brown silty clay with sand; medium stiff; moist.
10			■	2/4/5		CL	76.1	36.7	**ALLUVIUM:** Dark yellow brown silty clay with sand and some caliche; medium stiff; moist.
15			■	3/6/8		CL			**ALLUVIUM:** Dark yellow brown silty clay with sand and some caliche; stiff; moist.
20									Total Depth: 16.5 feet. No Groundwater Encountered.
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: IT-1
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 2, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						CL			**ALLUVIUM:** Olive brown silty clay.
						CL			**ALLUVIUM:** Dark yellow brown silty clay.
5									Total Depth: 4.0 feet. No Groundwater Encountered. Installed 4.0 feet of 3" perforated pipe and gravel pack
10									
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: IT-2
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 2, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0									
						CL			**ALLUVIUM:** Olive brown silty clay.
5						CL			**ALLUVIUM:** Dark yellow brown silty clay.
10									
15									Total Depth: 15.0 feet. No Groundwater Encountered. Installed 15.0 feet of 3" perforated pipe and gravel pack
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: IT-3
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 3, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						CL			**ALLUVIUM:** Olive brown silty clay.
5						CL			**ALLUVIUM:** Yellow brown silty clay.
10									Total Depth: 7.0 feet. No Groundwater Encountered. Installed 7.0 feet of 3" perforated pipe and gravel pack
15									
20									
25									
30									
35									

Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Earth Systems
1731-A Walter Street, Ventura, California 93003
PHONE: (805) 642-6727 FAX: (805) 642-1325

BORING NO: IT-4
PROJECT NAME: Somis Ranch Farmworker Housing
PROJECT NUMBER: 302947-001
BORING LOCATION: Per Plan

DRILLING DATE: July 3, 2019
DRILL RIG: CME-85
DRILLING METHOD: Eight-Inch Hollow Stem Auger
LOGGED BY: SC

Vertical Depth	Sample Type: Bulk	Sample Type: SPT	Sample Type: Mod. Calif.	PENETRATION RESISTANCE (BLOWS/6"	SYMBOL	USCS CLASS	UNIT DRY WT. (pcf)	MOISTURE CONTENT (%)	DESCRIPTION OF UNITS
0						CL			**ALLUVIUM:** Olive brown silty clay.
5									
10						CL			**ALLUVIUM:** Yellow brown silty clay.
15									
20									Total Depth: 18.0 feet. No Groundwater Encountered. Installed 18 feet of 3" perforated pipe and gravel pack
25									
30									
35									

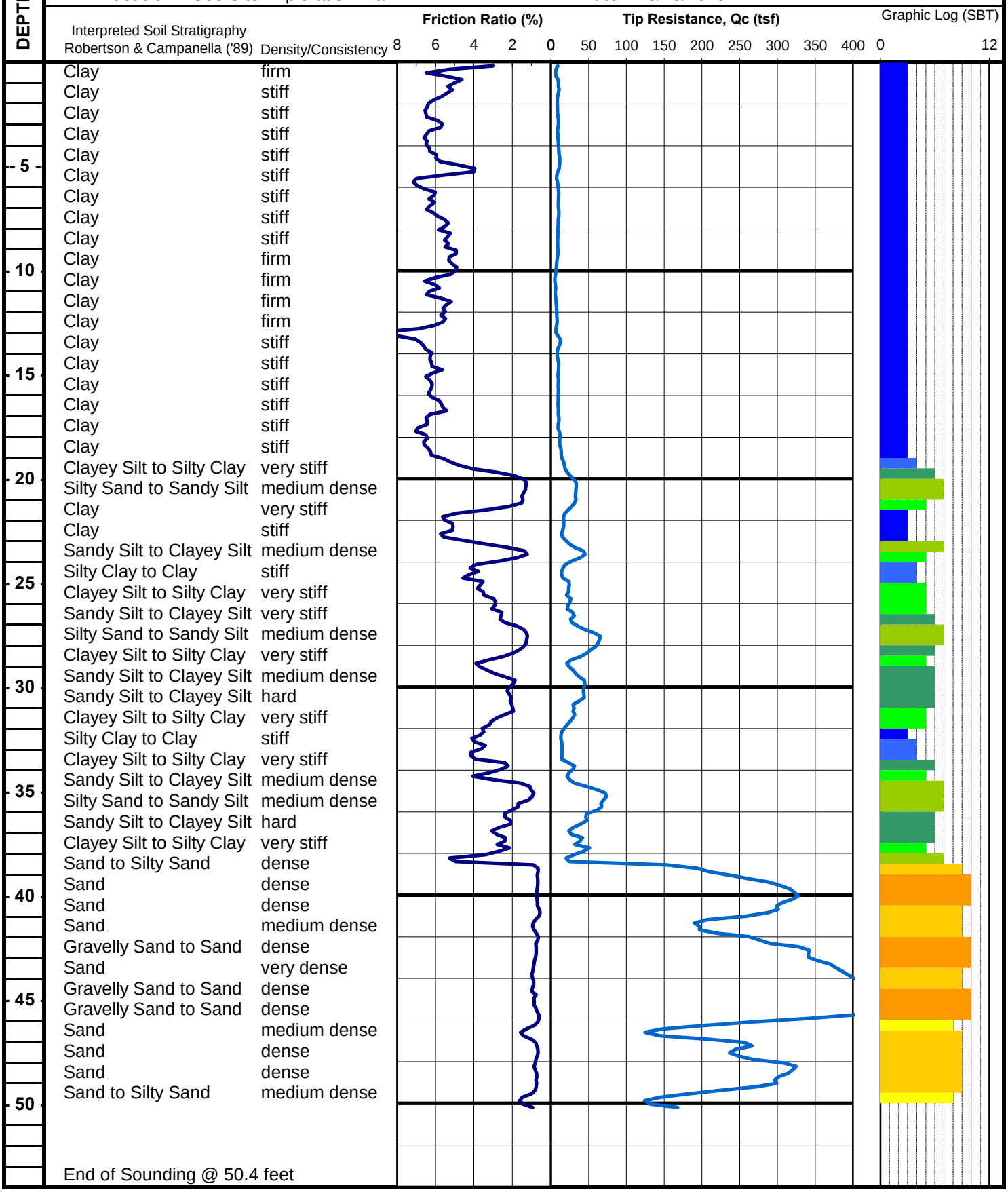
Note: The stratification lines shown represent the approximate boundaries between soil and/or rock types and the transitions may be gradual.

Logs of CPT Soundings and Interpretations

Earth Systems

CPT No: CPT-1
Project Name: Somis Ranch Farmworker Housing
Project No.: 302947-001
Location: See Site Exploration Plan

CPT Vendor: **Middle Earth GeoTesting**
Truck Mounted Electric
Cone with 23-ton reaction
Date: 3/28/2019



End of Sounding @ 50.4 feet

Earth Systems

CONE PENETROMETER INTERPRETATION (based on Robertson & Campanella, 1989)

Project: Somis Ranch Farmworker Housing Project No: 302947-001 Date: 03/28/19

CPT SOUNDING: CPT-1 Plot: 1 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Est. GWT (feet): **50.0** Dr correlation: 0 Baldi Qc/N: 1 Robertson Phi Correlation: 4 SPT N

Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	2.6 Ic	Clean Sand Qc1n	Clean Sand $N_{1(60)}$	Rel. Dens. Dr (%)	Phi (deg.)	Nk: 17 Su (tsf)	OCR
0.15	0.5	6.49	5.75	Clay	CL/CH	firm	110	1.0	6	0.014	0.014	5.76	0.95	1.70	10.4	3.15		6			0.38	141.2
0.30	1.0	9.90	5.00	Clay	CL/CH	stiff	110	1.0	10	0.041	0.041	5.02	0.90	1.70	15.9	2.97		10			0.58	71.7
0.46	1.5	9.83	5.41	Clay	CL/CH	stiff	110	1.0	10	0.069	0.069	5.45	0.91	1.70	15.8	3.00		10			0.57	42.6
0.61	2.0	8.54	6.30	Clay	CL/CH	firm	110	1.0	9	0.096	0.096	6.37	0.94	1.70	13.7	3.09		9			0.50	26.3
0.76	2.5	9.03	6.50	Clay	CL/CH	stiff	110	1.0	9	0.124	0.124	6.59	0.93	1.70	14.5	3.08		9			0.52	21.6
0.91	3.0	9.75	5.76	Clay	CL/CH	stiff	110	1.0	10	0.151	0.151	5.85	0.92	1.70	15.7	3.02		10			0.56	19.0
1.07	3.5	8.98	6.46	Clay	CL/CH	stiff	110	1.0	9	0.179	0.179	6.59	0.93	1.70	14.4	3.08		9			0.52	14.8
1.22	4.0	9.98	6.42	Clay	CL/CH	stiff	110	1.0	10	0.206	0.206	6.55	0.92	1.70	16.0	3.05		10			0.58	14.2
1.37	4.5	11.01	6.07	Clay	CL/CH	stiff	110	1.0	11	0.234	0.234	6.20	0.91	1.70	17.7	3.00		11			0.63	13.8
1.52	5.0	11.31	4.84	Clay	CL/CH	stiff	110	1.0	11	0.261	0.261	4.96	0.89	1.70	18.2	2.92		11			0.65	12.7
1.68	5.5	8.29	5.94	Clay	CL/CH	firm	110	1.0	8	0.289	0.289	6.15	0.94	1.70	13.3	3.09		8			0.47	8.3
1.83	6.0	9.86	6.53	Clay	CL/CH	stiff	110	1.0	10	0.316	0.316	6.74	0.93	1.70	15.8	3.06		10			0.56	9.1
1.98	6.5	10.10	6.16	Clay	CL/CH	stiff	110	1.0	10	0.344	0.344	6.38	0.92	1.70	16.2	3.03		10			0.57	8.5
2.13	7.0	10.30	6.29	Clay	CL/CH	stiff	110	1.0	10	0.371	0.371	6.53	0.92	1.70	16.6	3.03		10			0.58	8.0
2.29	7.5	9.94	5.58	Clay	CL/CH	stiff	110	1.0	10	0.399	0.399	5.82	0.92	1.70	16.0	3.01		10			0.56	7.2
2.44	8.0	9.23	5.53	Clay	CL/CH	stiff	110	1.0	9	0.426	0.426	5.80	0.92	1.70	14.8	3.04		9			0.52	6.2
2.59	8.5	8.90	5.40	Clay	CL/CH	firm	110	1.0	9	0.454	0.454	5.69	0.93	1.70	14.3	3.04		9			0.50	5.6
2.74	9.0	9.29	5.12	Clay	CL/CH	stiff	110	1.0	9	0.481	0.481	5.40	0.92	1.70	14.9	3.01		9			0.52	5.5
2.90	9.5	8.02	5.24	Clay	CL/CH	firm	110	1.0	8	0.509	0.509	5.59	0.94	1.70	12.9	3.07		8			0.44	4.4
3.05	10.0	6.64	5.02	Clay	CL/CH	firm	110	1.0	7	0.536	0.536	5.46	0.96	1.70	10.7	3.13		7			0.36	3.4
3.20	10.5	5.44	6.21	Clay	CL/CH	firm	110	1.0	5	0.564	0.564	6.93	1.00	1.70	8.7	3.26		5			0.29	2.6
3.35	11.0	6.05	6.20	Clay	CL/CH	firm	110	1.0	6	0.591	0.591	6.87	0.99	1.70	9.7	3.22		6			0.32	2.8
3.51	11.5	6.85	5.45	Clay	CL/CH	firm	110	1.0	7	0.619	0.619	5.99	0.96	1.68	10.8	3.15		7			0.37	3.0
3.66	12.0	7.63	5.61	Clay	CL/CH	firm	110	1.0	8	0.646	0.646	6.13	0.96	1.60	11.6	3.13		8			0.41	3.2
3.81	12.5	8.01	5.72	Clay	CL/CH	firm	110	1.0	8	0.674	0.674	6.25	0.96	1.54	11.7	3.14		8			0.43	3.3
3.96	13.0	7.52	7.95	Clay	CL/CH	firm	110	1.0	8	0.701	0.701	8.77	1.00	1.51	10.7	3.26		8			0.40	2.9
4.11	13.5	11.96	6.81	Clay	CL/CH	stiff	110	1.0	12	0.729	0.729	7.25	0.94	1.42	16.0	3.08		12			0.66	4.6
4.27	14.0	8.57	6.32	Clay	CL/CH	firm	110	1.0	9	0.756	0.756	6.94	0.97	1.39	11.2	3.18		9			0.46	3.1
4.42	14.5	9.93	6.23	Clay	CL/CH	stiff	110	1.0	10	0.784	0.784	6.76	0.96	1.33	12.5	3.14		10			0.54	3.5
4.57	15.0	9.68	6.11	Clay	CL/CH	stiff	110	1.0	10	0.811	0.811	6.66	0.96	1.29	11.8	3.15		10			0.52	3.3
4.72	15.5	9.85	6.22	Clay	CL/CH	stiff	110	1.0	10	0.839	0.839	6.80	0.97	1.25	11.6	3.16		10			0.53	3.2
4.88	16.0	9.84	6.16	Clay	CL/CH	stiff	110	1.0	10	0.866	0.866	6.76	0.97	1.21	11.3	3.17		10			0.53	3.1
5.03	16.5	9.71	5.58	Clay	CL/CH	stiff	110	1.0	10	0.894	0.894	6.15	0.97	1.18	10.8	3.16		10			0.52	3.0
5.18	17.0	10.28	6.40	Clay	CL/CH	stiff	110	1.0	10	0.921	0.921	7.03	0.97	1.14	11.1	3.19		10			0.55	3.0
5.33	17.5	10.07	6.79	Clay	CL/CH	stiff	110	1.0	10	0.949	0.949	7.50	0.98	1.11	10.6	3.22		10			0.54	2.9
5.49	18.0	11.83	6.51	Clay	CL/CH	stiff	110	1.0	12	0.976	0.976	7.10	0.96	1.08	12.1	3.16		12			0.64	3.3
5.64	18.5	12.78	6.42	Clay	CL/CH	stiff	110	1.0	13	1.004	1.004	6.96	0.96	1.05	12.7	3.14		13			0.69	3.5
5.79	19.0	15.03	5.67	Clay	CL/CH	stiff	110	1.0	15	1.031	1.031	6.09	0.93	1.02	14.5	3.06		15			0.82	4.1
5.94	19.5	19.38	3.90	Silty Clay to Clay	CL	very stiff	110	1.5	13	1.059	1.059	4.12	0.87	1.00	18.3	2.87		13			1.08	5.2
6.10	20.0	29.63	1.53	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	12	1.086	1.086	1.58	0.76	0.98	27.5	2.48	73.1	11	15	23	30		
6.25	20.5	33.21	1.34	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	11	1.114	1.114	1.39	0.73	0.96	30.2	2.41	71.3	10	14	27	30		
6.40	21.0	32.31	1.49	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	11	1.141	1.141	1.54	0.75	0.94	28.9	2.45	73.4	10	15	25	30		
6.55	21.5	22.98	3.46	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	11	1.169	1.169	3.65	0.86	0.92	19.9	2.81		11			1.28	5.6
6.71	22.0	16.97	5.42	Clay	CL/CH	stiff	110	1.0	17	1.196	1.196	5.83	0.93	0.89	14.3	3.05		17			0.93	4.0
6.86	22.5	15.42	5.31	Clay	CL/CH	stiff	110	1.0	15	1.224	1.224	5.77	0.94	0.87	12.7	3.09		15			0.84	3.5
7.01	23.0	19.80	4.53	Clay	CL/CH	very stiff	110	1.0	20	1.251	1.251	4.83	0.90	0.86	16.1	2.96		20			1.09	4.4
7.16	23.5	39.98	1.61	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	13	1.279	1.279	1.66	0.74	0.87	32.8	2.43	79.7	12	16	31	31		
7.32	24.0	28.62	2.77	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	14	1.306	1.306	2.90	0.82	0.84	22.7	2.70		14			1.61	6.3
7.47	24.5	14.77	4.08	Silty Clay to Clay	CL	stiff	110	1.5	10	1.334	1.334	4.48	0.94	0.81	11.2	3.06		10			0.79	3.0
7.62	25.0	21.34	3.92	Silty Clay to Clay	CL	very stiff	110	1.5	14	1.361	1.361	4.19	0.89	0.80	16.1	2.92		14			1.18	4.4
7.77	25.5	22.52	3.60	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	11	1.389	1.389	3.84	0.88	0.79	16.8	2.88		11			1.24	4.6
7.92	26.0	24.76	2.92	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	12	1.416	1.416	3.10	0.85	0.78	18.3	2.79		12			1.37	4.9
8.08	26.5	26.76	2.71	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	13	1.444	1.444	2.86	0.84	0.77	19.5	2.75		13			1.49	5.3
8.23	27.0	35.87	1.86	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	14	1.471	1.471	1.94	0.78	0.77	26.3	2.55	78.9	12	16	21	31		
8.38	27.5	62.22	1.25	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	21	1.499	1.499	1.28	0.68	0.79	46.4	2.24	81.9	17	16	45	32		
8.53	28.0	58.12	1.44	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	19	1.526	1.526	1.47	0.70	0.77	42.5	2.31	83.7	16	17	41	32		
8.69	28.5	37.74	2.57	Sandy Silt to Clayey Silt	ML	hard	110	2.5	15	1.554	1.554	2.68	0.80	0.73	26.2	2.63		15			2.13	7.0
8.84	29.0	25.03	3.62	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	13	1.581	1.581	3.86	0.88	0.70	16.6	2.89		13			1.38	4.4
8.99	29.5	38.40	2.37	Sandy Silt to Clayey Silt	ML	hard	110	2.5	15	1.609	1.609	2.48	0.80	0.72	26.0	2.61		15			2.16	6.9
9.14	30.0	43.94	2.13	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	18	1.636	1.636	2.21	0.77	0.71	29.6	2.54	88.0	14	18	26	31		
9.30	30.5	41.67	2.10	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	17	1.664	1.664	2.19	0.78	0.70	27.7	2.56	85.3	13	17	24	31		
9.45	31.0	29.94	1.99	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	12	1.691	1.691	2.11	0.82	0.68	19.3	2.67		12			1.66	5.0
9.60	31.5	28.53	2.78	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	14	1.719	1.719	2.96	0.85	0.66	17.8	2.79		14			1.58	4.7
9.75	32.0	17.82	3.42	Clayey Silt to Silty Clay	ML/CL	stiff	110	2.0	9	1.746	1.746	3.79	0.93	0.63	10.6	3.04		9			0.95	2.8
9.91	32.5	13.56	3.91	Clay	CL/CH	stiff	110	1.0	14	1.774	1.774	4.50	0.98	0.60	7.7	3.19		14			0.69	2.0
10.06	33.0	14.71	3.72	Silty Clay to Clay	CL	stiff	110	1.5	10	1.801	1.801	4.24	0.97	0.60	8.3	3.15		10			0.76	2.2
10.21	33.5	17.42	3.49	Silty Clay to Clay	CL	stiff	110	1.5	12	1.829	1.829	3.90	0.94	0.60	9.8	3.07		12			0.92	2.6
10.36	34.0	28.09	2.66	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	11	1.856	1.856	2.85	0.86	0.62	16.4	2.81		11			1.54	4.2
10.52	34.5	25.77	2.88	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	13	1.884	1.884	3.11	0.88	0.60	14.7	2.87		13			1.41	3.8
10.67	35.0	60.26	1.00	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	20	1.911	1.911	1.03	0.69	0.66	37.9	2.26	69.0	15	14	37	32		
10.82	35.5	69.77	1.27	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	23	1.939	1.939	1.30	0.69	0.66	43.4	2.27	80.2	17	16	42	32		
10.97	36.0	58.59	2.05	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	20	1.966	1.966	2.12	0.75	0.63	34.7	2.47	91.4	14	18	33	31		
11.13	36.5	40.66	2.31	Sandy Silt to Clayey Silt	ML	hard	110	2.5	16	1.994	1.994	2.43	0.81	0.60	23.0	2.65		16			2.27	5.8
11.28	37.0	30.89	2.76	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	12	2.021	2.021	2.95	0.86	0.57	16.7	2.81		12			1.70	4.3
11.43	37.5	40.39	2.44	Sandy Silt to Clayey Silt	ML	hard	110	2.5	16	2.049	2.049	2.57	0.82	0.58	22.2	2.68		16			2.26	5.6

Earth Systems

CONE PENETROMETER INTERPRETATION (based on Robertson & Campanella, 1989)

Project: Somis Ranch Farmworker Housing Project No: 302947-001 Date: 03/28/19

CPT SOUNDING: CPT-1 Plot: 1 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Est. GWT (feet): **50.0** Dr correlation: 0 Baldi Qc/N: 1 Robertson Phi Correlation: 4 SPT N

Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	2.6 Ic	Clean Sand Qc1n	$N_{1(60)}$	Clean Sand $N_{1(60)}$	Rel. Dens. Dr (%)	Phi (deg.)	Nk: 17 Su (tsf)	OCR
11.58	38.0	31.48	3.79	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	16	2.076	2.076	4.05	0.89	0.55	16.4	2.90		16				1.73	4.2
11.73	38.5	124.12	2.18	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	41	2.104	2.104	2.21	0.68	0.63	73.3	2.24	130.1	29	26	64	36		
11.89	39.0	235.45	0.68	Sand	SP	dense	100	5.0	47	2.130	2.130	0.69	0.51	0.70	155.9	1.66	157.3	32	31	95	37		
12.04	39.5	302.33	0.68	Gravelly Sand to Sand	SW	dense	110	6.0	50	2.156	2.156	0.69	0.50	0.70	200.2	1.58	200.2	34	40	100	37		
12.19	40.0	323.40	0.73	Gravelly Sand to Sand	SW	dense	110	6.0	54	2.184	2.184	0.73	0.50	0.70	212.8	1.58	212.8	36	43	100	38		
12.34	40.5	302.34	0.66	Gravelly Sand to Sand	SW	dense	110	6.0	50	2.211	2.211	0.66	0.50	0.69	197.7	1.57	197.7	34	40	100	37		
12.50	41.0	250.89	0.66	Sand	SP	dense	100	5.0	50	2.238	2.238	0.66	0.50	0.69	162.9	1.63	162.9	34	33	97	37		
12.65	41.5	194.67	0.91	Sand	SP	medium dense	100	5.0	39	2.263	2.263	0.92	0.56	0.65	120.3	1.83	135.5	26	27	84	35		
12.80	42.0	252.65	0.69	Sand	SP	dense	100	5.0	51	2.288	2.288	0.69	0.51	0.68	161.6	1.65	162.0	33	32	97	37		
12.95	42.5	319.95	0.76	Gravelly Sand to Sand	SW	dense	110	6.0	53	2.314	2.314	0.77	0.50	0.68	204.5	1.60	204.5	35	41	100	37		
13.11	43.0	345.30	0.80	Gravelly Sand to Sand	SW	dense	110	6.0	58	2.341	2.341	0.80	0.50	0.67	219.4	1.59	219.4	38	44	100	38		
13.26	43.5	377.24	0.90	Gravelly Sand to Sand	SW	dense	110	6.0	63	2.369	2.369	0.90	0.50	0.67	238.3	1.60	238.3	41	48	100	39		
13.41	44.0	400.62	0.94	Sand	SP	very dense	100	5.0	80	2.395	2.395	0.95	0.50	0.66	251.7	1.60	251.7	52	50	100	41		
13.56	44.5	413.72	0.94	Sand	SP	very dense	100	5.0	83	2.420	2.420	0.95	0.50	0.66	258.6	1.60	258.6	53	52	100	41		
13.72	45.0	503.18	0.83	Gravelly Sand to Sand	SW	very dense	110	6.0	84	2.446	2.446	0.83	0.50	0.66	312.8	1.50	312.8	54	63	100	41		
13.87	45.5	481.80	0.78	Gravelly Sand to Sand	SW	very dense	110	6.0	80	2.474	2.474	0.78	0.50	0.65	297.8	1.49	297.8	51	60	100	41		
14.02	46.0	335.21	0.63	Gravelly Sand to Sand	SW	dense	110	6.0	56	2.501	2.501	0.63	0.50	0.65	206.1	1.54	206.1	35	41	100	37		
14.17	46.5	158.67	1.23	Sand to Silty Sand	SP/SM	medium dense	100	4.0	40	2.528	2.528	1.25	0.62	0.58	87.6	2.02	115.8	25	23	71	35		
14.33	47.0	218.73	0.99	Sand	SP	medium dense	120	5.0	44	2.555	2.555	1.00	0.56	0.61	125.9	1.83	142.6	27	29	86	35		
14.48	47.5	243.51	0.68	Sand	SP	dense	120	5.0	49	2.585	2.585	0.68	0.52	0.63	145.0	1.68	148.6	30	30	92	36		
14.63	48.0	300.49	0.81	Sand	SP	dense	120	5.0	60	2.615	2.615	0.82	0.51	0.63	178.8	1.66	181.1	37	36	100	38		
14.78	48.5	312.06	0.75	Sand	SP	dense	120	5.0	62	2.645	2.645	0.76	0.50	0.63	186.4	1.63	186.4	38	37	100	38		
14.94	49.0	288.85	0.75	Sand	SP	dense	120	5.0	58	2.675	2.675	0.76	0.51	0.62	170.1	1.66	171.6	35	34	99	37		
15.09	49.5	184.42	1.09	Sand	SP	medium dense	120	5.0	37	2.705	2.705	1.11	0.59	0.57	99.7	1.94	122.6	22	25	77	34		
15.24	50.0	141.23	1.33	Sand to Silty Sand	SP/SM	medium dense	120	4.0	35	2.735	2.735	1.36	0.64	0.54	72.4	2.10	105.7	21	21	63	34		

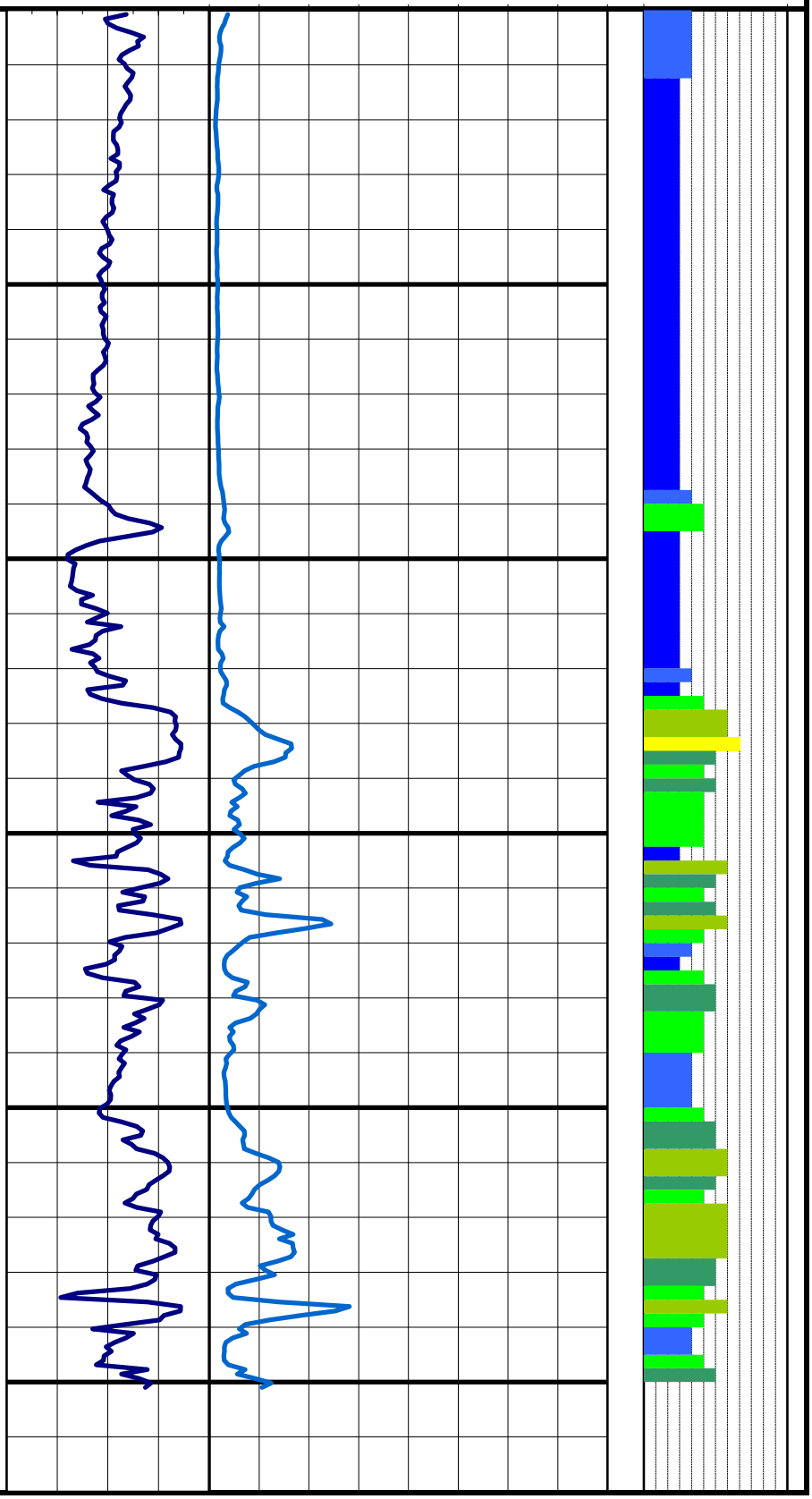
Earth Systems

CPT No: CPT-2
Project Name: Somis Ranch Farmworker Housing
Project No.: 302947-001
Location: See Site Exploration Plan

CPT Vendor: **Middle Earth GeoTesting**
Truck Mounted Electric
Cone with 23-ton reaction
Date: 6/24/2019

DEPTH (FEET)	Interpreted Soil Stratigraphy Robertson & Campanella ('89)	Density/Consistency
	Silty Clay to Clay	stiff
	Silty Clay to Clay	stiff
	Silty Clay to Clay	firm
	Clay	firm
	Clay	firm
5	Clay	stiff
	Clay	firm
	Clay	firm
	Clay	firm
10	Clay	firm
	Clay	firm
	Clay	firm
	Clay	firm
	Clay	firm
15	Clay	firm
	Clay	stiff
	Clay	stiff
	Clayey Silt to Silty Clay	stiff
20	Clay	stiff
	Clay	stiff
	Clay	stiff
	Clay	stiff
	Clay	stiff
25	Silty Clay to Clay	stiff
	Sandy Silt to Clayey Silt	medium dense
	Silty Sand to Sandy Silt	medium dense
	Sandy Silt to Clayey Silt	hard
	Clayey Silt to Silty Clay	very stiff
30	Clayey Silt to Silty Clay	very stiff
	Silty Clay to Clay	very stiff
	Sandy Silt to Clayey Silt	medium dense
	Sandy Silt to Clayey Silt	medium dense
	Sandy Silt to Clayey Silt	medium dense
35	Silty Clay to Clay	stiff
	Clayey Silt to Silty Clay	very stiff
	Sandy Silt to Clayey Silt	hard
	Clayey Silt to Silty Clay	very stiff
	Silty Clay to Clay	stiff
40	Silty Clay to Clay	stiff
	Clayey Silt to Silty Clay	very stiff
	Sandy Silt to Clayey Silt	medium dense
	Sandy Silt to Clayey Silt	medium dense
	Sandy Silt to Clayey Silt	hard
45	Silty Sand to Sandy Silt	medium dense
	Silty Sand to Sandy Silt	medium dense
	Sandy Silt to Clayey Silt	hard
	Sandy Silt to Clayey Silt	medium dense
	Silty Clay to Clay	stiff
50	Sandy Silt to Clayey Silt	hard

End of Sounding @ 50.4 feet



Earth Systems

CONE PENETROMETER INTERPRETATION (based on Robertson & Campanella, 1989)

Project: Somis Ranch Farmworker Housing Project No: 302947-001 Date: 06/24/19

CPT SOUNDING: CPT-2 Plot: 1 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Est. GWT (feet): **55.0** Dr correlation: 0 Baldi Qc/N: 1 Robertson Phi Correlation: 4 SPT N

Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	2.6 Ic	Clean Sand Qc1n	$N_{1(60)}$	Clean Sand $N_{1(60)}$	Rel. Dens. Dr (%)	Phi (deg.)	Nk: 17 Su (tsf)	OCR
0.15	0.5	14.79	3.92	Silty Clay to Clay	CL	stiff	110	1.5	10	0.014	0.014	3.92	0.84	1.70	23.8	2.77		10				0.87	####
0.30	1.0	10.44	2.83	Silty Clay to Clay	CL	stiff	110	1.5	7	0.041	0.041	2.84	0.85	1.70	16.8	2.80		7				0.61	75.6
0.46	1.5	11.49	3.13	Silty Clay to Clay	CL	stiff	110	1.5	8	0.069	0.069	3.15	0.85	1.70	18.5	2.79		8				0.67	49.9
0.61	2.0	9.62	3.38	Silty Clay to Clay	CL	stiff	110	1.5	6	0.096	0.096	3.42	0.87	1.70	15.5	2.88		6				0.56	29.7
0.76	2.5	8.30	3.08	Silty Clay to Clay	CL	firm	110	1.5	6	0.124	0.124	3.13	0.88	1.70	13.3	2.91		6				0.48	19.8
0.91	3.0	7.98	3.21	Clay	CL/CH	firm	110	1.0	8	0.151	0.151	3.28	0.89	1.70	12.8	2.93		8				0.46	15.5
1.07	3.5	7.45	3.26	Clay	CL/CH	firm	110	1.0	7	0.179	0.179	3.34	0.90	1.70	12.0	2.96		7				0.43	12.2
1.22	4.0	6.33	3.49	Clay	CL/CH	firm	110	1.0	6	0.206	0.206	3.61	0.92	1.70	10.2	3.04		6				0.36	8.9
1.37	4.5	6.56	3.70	Clay	CL/CH	firm	110	1.0	7	0.234	0.234	3.84	0.92	1.70	10.5	3.04		7				0.37	8.1
1.52	5.0	7.67	3.68	Clay	CL/CH	firm	110	1.0	8	0.261	0.261	3.81	0.91	1.70	12.3	2.98		8				0.44	8.5
1.68	5.5	8.76	3.64	Clay	CL/CH	firm	110	1.0	9	0.289	0.289	3.77	0.89	1.70	14.1	2.94		9				0.50	8.8
1.83	6.0	9.02	3.67	Clay	CL/CH	stiff	110	1.0	9	0.316	0.316	3.80	0.89	1.70	14.5	2.93		9				0.51	8.3
1.98	6.5	7.82	3.97	Clay	CL/CH	firm	110	1.0	8	0.344	0.344	4.15	0.91	1.70	12.6	3.00		8				0.44	6.5
2.13	7.0	8.53	3.82	Clay	CL/CH	firm	110	1.0	9	0.371	0.371	3.99	0.90	1.70	13.7	2.96		9				0.48	6.6
2.29	7.5	7.52	4.03	Clay	CL/CH	firm	110	1.0	8	0.399	0.399	4.26	0.92	1.70	12.1	3.02		8				0.42	5.4
2.44	8.0	7.59	4.02	Clay	CL/CH	firm	110	1.0	8	0.426	0.426	4.25	0.92	1.70	12.2	3.02		8				0.42	5.0
2.59	8.5	7.55	4.00	Clay	CL/CH	firm	110	1.0	8	0.454	0.454	4.26	0.92	1.70	12.1	3.02		8				0.42	4.7
2.74	9.0	7.49	4.14	Clay	CL/CH	firm	110	1.0	7	0.481	0.481	4.43	0.92	1.70	12.0	3.03		7				0.41	4.4
2.90	9.5	7.90	4.20	Clay	CL/CH	firm	110	1.0	8	0.509	0.509	4.49	0.92	1.70	12.7	3.02		8				0.43	4.4
3.05	10.0	8.40	4.20	Clay	CL/CH	firm	110	1.0	8	0.536	0.536	4.49	0.91	1.70	13.5	3.00		8				0.46	4.4
3.20	10.5	7.93	4.19	Clay	CL/CH	firm	110	1.0	8	0.564	0.564	4.51	0.92	1.70	12.7	3.02		8				0.43	3.9
3.35	11.0	8.07	4.22	Clay	CL/CH	firm	110	1.0	8	0.591	0.591	4.55	0.92	1.70	13.0	3.01		8				0.44	3.8
3.51	11.5	8.49	4.19	Clay	CL/CH	firm	110	1.0	8	0.619	0.619	4.52	0.92	1.64	13.1	3.01		8				0.46	3.8
3.66	12.0	8.41	4.09	Clay	CL/CH	firm	110	1.0	8	0.646	0.646	4.43	0.92	1.58	12.5	3.02		8				0.46	3.6
3.81	12.5	7.76	4.11	Clay	CL/CH	firm	110	1.0	8	0.674	0.674	4.50	0.94	1.53	11.2	3.06		8				0.42	3.2
3.96	13.0	7.63	4.21	Clay	CL/CH	firm	110	1.0	8	0.701	0.701	4.64	0.94	1.47	10.6	3.09		8				0.41	3.0
4.11	13.5	8.38	4.57	Clay	CL/CH	firm	110	1.0	8	0.729	0.729	5.00	0.94	1.42	11.3	3.09		8				0.45	3.1
4.27	14.0	9.56	4.48	Clay	CL/CH	stiff	110	1.0	10	0.756	0.756	4.86	0.93	1.37	12.4	3.05		10				0.52	3.5
4.42	14.5	8.74	4.61	Clay	CL/CH	firm	110	1.0	9	0.784	0.784	5.06	0.95	1.33	11.0	3.10		9				0.47	3.0
4.57	15.0	8.16	4.67	Clay	CL/CH	firm	110	1.0	8	0.811	0.811	5.19	0.96	1.29	10.0	3.14		8				0.43	2.7
4.72	15.5	8.39	4.92	Clay	CL/CH	firm	110	1.0	8	0.839	0.839	5.46	0.97	1.25	9.9	3.15		8				0.44	2.7
4.88	16.0	9.05	4.70	Clay	CL/CH	firm	110	1.0	9	0.866	0.866	5.20	0.96	1.21	10.4	3.13		9				0.48	2.8
5.03	16.5	9.67	4.79	Clay	CL/CH	stiff	110	1.0	10	0.894	0.894	5.27	0.95	1.17	10.7	3.12		10				0.52	2.9
5.18	17.0	10.34	4.80	Clay	CL/CH	stiff	110	1.0	10	0.921	0.921	5.27	0.95	1.14	11.1	3.11		10				0.55	3.1
5.33	17.5	12.81	4.70	Clay	CL/CH	stiff	110	1.0	13	0.949	0.949	5.08	0.93	1.11	13.4	3.03		13				0.70	3.8
5.49	18.0	14.78	4.04	Silty Clay to Clay	CL	stiff	110	1.5	10	0.976	0.976	4.33	0.90	1.08	15.0	2.95		10				0.81	4.2
5.64	18.5	14.92	3.08	Clayey Silt to Silty Clay	ML/CL	stiff	110	2.0	7	1.004	1.004	3.30	0.88	1.05	14.8	2.88		7				0.82	4.2
5.79	19.0	18.12	2.46	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	9	1.031	1.031	2.61	0.84	1.02	17.5	2.76		9				1.01	5.0
5.94	19.5	10.32	4.82	Clay	CL/CH	stiff	110	1.0	10	1.059	1.059	5.37	0.97	1.00	9.8	3.16		10				0.54	2.6
6.10	20.0	9.94	5.49	Clay	CL/CH	stiff	110	1.0	10	1.086	1.086	6.16	0.98	0.97	9.2	3.21		10				0.52	2.4
6.25	20.5	10.12	5.38	Clay	CL/CH	stiff	110	1.0	10	1.114	1.114	6.05	0.98	0.95	9.1	3.21		10				0.53	2.4
6.40	21.0	10.10	5.38	Clay	CL/CH	stiff	110	1.0	10	1.141	1.141	6.07	0.99	0.93	8.9	3.22		10				0.53	2.4
6.55	21.5	11.02	4.90	Clay	CL/CH	stiff	110	1.0	11	1.169	1.169	5.48	0.97	0.91	9.5	3.17		11				0.58	2.5
6.71	22.0	11.22	4.30	Clay	CL/CH	stiff	110	1.0	11	1.196	1.196	4.81	0.96	0.89	9.4	3.14		11				0.59	2.5
6.86	22.5	12.09	4.17	Clay	CL/CH	stiff	110	1.0	12	1.224	1.224	4.64	0.95	0.87	9.9	3.11		12				0.64	2.7
7.01	23.0	8.73	4.56	Clay	CL/CH	firm	110	1.0	9	1.251	1.251	5.33	1.00	0.85	7.0	3.27		9				0.44	1.8
7.16	23.5	11.81	4.79	Clay	CL/CH	stiff	110	1.0	12	1.279	1.279	5.37	0.97	0.83	9.3	3.17		12				0.62	2.5
7.32	24.0	11.20	4.54	Clay	CL/CH	stiff	110	1.0	11	1.306	1.306	5.14	0.98	0.81	8.6	3.19		11				0.58	2.3
7.47	24.5	16.24	3.55	Silty Clay to Clay	CL	stiff	110	1.5	11	1.334	1.334	3.87	0.91	0.81	12.4	2.98		11				0.88	3.4
7.62	25.0	14.35	4.58	Clay	CL/CH	stiff	110	1.0	14	1.361	1.361	5.06	0.95	0.79	10.7	3.11		14				0.76	2.9
7.77	25.5	20.98	2.40	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	10	1.389	1.389	2.57	0.85	0.79	15.7	2.80		10				1.15	4.2
7.92	26.0	40.66	1.32	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	14	1.416	1.416	1.37	0.73	0.81	31.0	2.40	71.6	11	14	28	30		
8.08	26.5	64.49	1.31	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	21	1.444	1.444	1.34	0.68	0.81	49.3	2.23	85.9	18	17	48	33		
8.23	27.0	78.58	1.17	Sand to Silty Sand	SP/SM	medium dense	100	4.0	20	1.470	1.470	1.19	0.65	0.81	60.0	2.13	90.8	16	18	56	32		
8.38	27.5	48.46	2.58	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	19	1.496	1.496	2.66	0.77	0.77	35.1	2.53	103.0	16	21	33	32		
8.53	28.0	26.91	2.85	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	13	1.524	1.524	3.02	0.85	0.73	18.7	2.78		13				1.49	5.0
8.69	28.5	33.08	2.46	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	13	1.551	1.551	2.58	0.81	0.73	22.9	2.67		13				1.85	6.1
8.84	29.0	24.07	3.52	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	12	1.579	1.579	3.76	0.88	0.70	16.0	2.89		12				1.32	4.3
8.99	29.5	26.52	2.98	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	13	1.606	1.606	3.17	0.86	0.70	17.5	2.81		13				1.47	4.7
9.14	30.0	30.25	2.88	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	15	1.634	1.634	3.05	0.84	0.69	19.8	2.76		15				1.68	5.3
9.30	30.5	24.40	3.24	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	12	1.661	1.661	3.48	0.88	0.67	15.5	2.88		12				1.34	4.1
9.45	31.0	17.97	4.58	Clay	CL/CH	stiff	110	1.0	18	1.689	1.689	5.05	0.95	0.64	10.9	3.10		18				0.96	2.9
9.60	31.5	51.33	1.98	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	17	1.716	1.716	2.05	0.75	0.69	33.7	2.47	88.8	13	18	32	31		
9.75	32.0	35.19	2.69	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	14	1.744	1.744	2.83	0.83	0.66	22.0	2.71		14				1.97	5.8
9.91	32.5	33.34	2.91	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	17	1.771	1.771	3.08	0.84	0.65	20.4	2.75		17				1.86	5.3
10.06	33.0	67.29	2.32	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	27	1.799	1.799	2.38	0.74	0.67	42.9	2.43	105.5	20	21	42	33		
10.21	33.5	95.36	1.59	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	32	1.826	1.826	1.62	0.67	0.69	62.5	2.20	104.4	24	21	57	34		
10.36	34.0	34.36	3.57	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	17	1.854	1.854	3.77	0.86	0.62	20.1	2.82		17				1.91	5.3
10.52	34.5	18.98	3.67	Silty Clay to Clay	CL	very stiff	110	1.5	13	1.881	1.881	4.08	0.94	0.58	10.5	3.06		13				1.01	2.7
10.67	35.0	15.60	4.60	Clay	CL/CH	stiff	110	1.0	16	1.909	1.909	5.24	0.98	0.56	8.3	3.21		16				0.81	2.2
10.82	35.5	32.42	3.30	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	16	1.936	1.936	3.51	0.86	0.59	18.2	2.83		16				1.79	4.7
10.97	36.0	32.87	2.83	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	13	1.964	1.964	3.01	0.85	0.59	18.4	2.78		13				1.82	4.7
11.13	36.5	48.55	2.49	Sandy Silt to Clayey Silt	ML	hard	110	2.5	19	1.991	1.991	2.59	0.79	0.61	27.8	2.60		19				2.74	7.0
11.28	37.0	23.62	3.02	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	12	2.019	2.019	3.30	0.90	0.56	12.5	2.94		12				1.27	3.2
11.43	37.5	21.65	3.40	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	11	2.046	2.046	3.76	0.92	0.54	11.1	3.02		11				1.15	2.9

Project: Somis Ranch Farmworker Housing Project No: 302947-001 Date: 06/24/19

CPT SOUNDING: CPT-2 Plot: 1 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

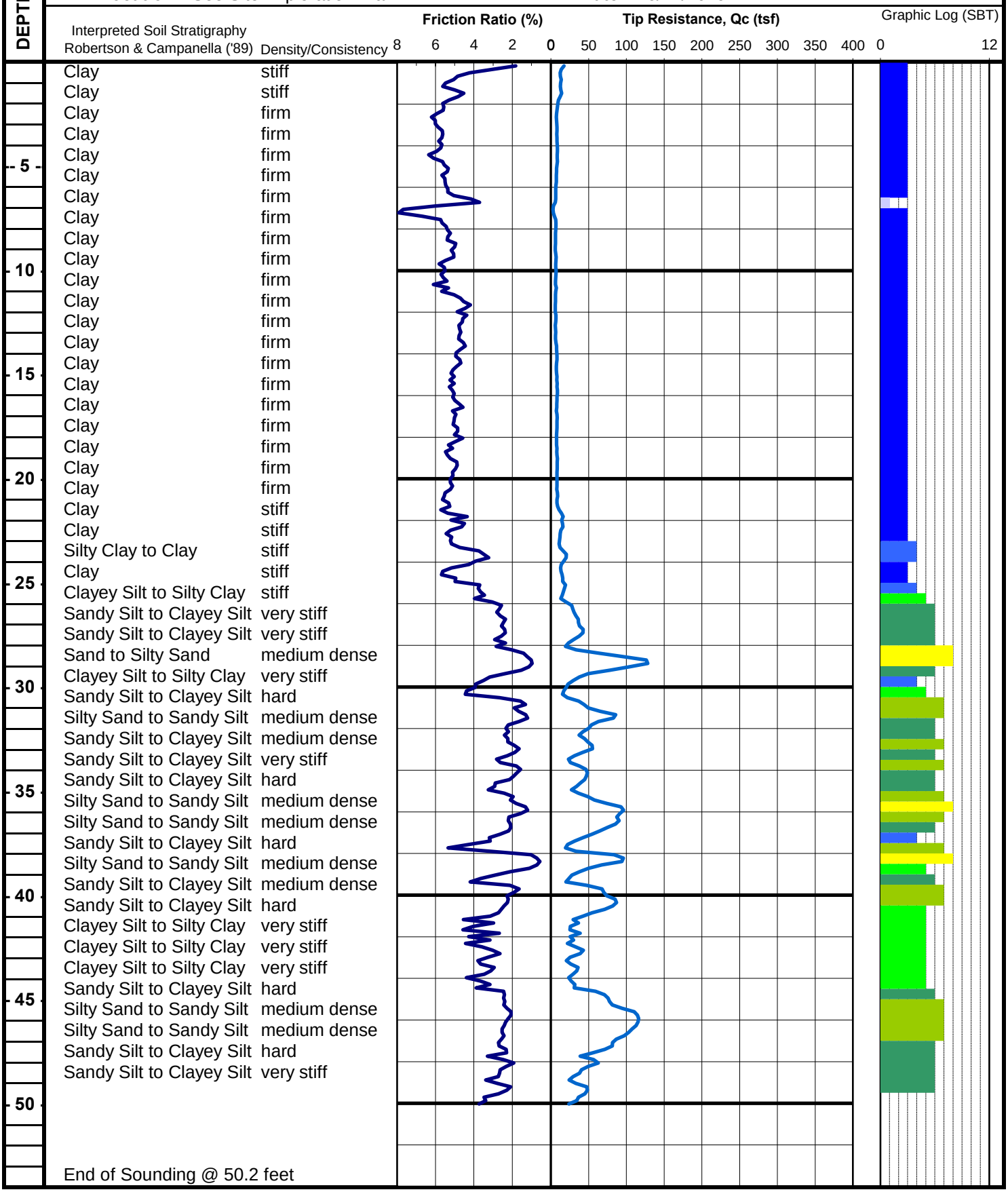
Est. GWT (feet): **55.0** Dr correlation: 0 Baldi Qc/N: 1 Robertson Phi Correlation: 4 SPT N

Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	2.6 Ic	Clean Sand Qc1n	$N_{1(60)}$	Clean Sand $N_{1(60)}$	Rel. Dens. Dr (%)	Phi (deg.)	Nk: 17 Su (tsf)	OCR
11.58	38.0	20.51	3.43	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	10	2.074	2.074	3.81	0.93	0.53	10.3	3.05		10				1.08	2.7
11.73	38.5	16.06	3.46	Silty Clay to Clay	CL	stiff	110	1.5	11	2.101	2.101	3.98	0.97	0.51	7.8	3.16		11				0.82	2.0
11.89	39.0	15.67	3.72	Silty Clay to Clay	CL	stiff	110	1.5	10	2.129	2.129	4.31	0.98	0.50	7.5	3.19		10				0.80	1.9
12.04	39.5	16.62	3.91	Silty Clay to Clay	CL	stiff	110	1.5	11	2.156	2.156	4.49	0.98	0.50	7.8	3.18		11				0.85	2.0
12.19	40.0	18.46	4.23	Silty Clay to Clay	CL	stiff	110	1.5	12	2.184	2.184	4.80	0.97	0.49	8.6	3.17		12				0.96	2.2
12.34	40.5	26.27	3.50	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	13	2.211	2.211	3.82	0.91	0.51	12.7	2.97		13				1.42	3.3
12.50	41.0	34.61	2.91	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	14	2.239	2.239	3.11	0.86	0.52	17.2	2.82		14				1.90	4.3
12.65	41.5	38.74	2.70	Sandy Silt to Clayey Silt	ML	hard	110	2.5	15	2.266	2.266	2.86	0.84	0.53	19.3	2.75		15				2.15	4.8
12.80	42.0	66.71	1.67	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	22	2.294	2.294	1.73	0.74	0.57	35.7	2.41	83.9	15	17	34	32		
12.95	42.5	64.66	1.84	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	22	2.321	2.321	1.91	0.75	0.56	33.9	2.45	86.1	14	17	32	31		
13.11	43.0	46.22	2.57	Sandy Silt to Clayey Silt	ML	hard	110	2.5	18	2.349	2.349	2.71	0.82	0.52	22.7	2.68		18				2.58	5.6
13.26	43.5	36.85	3.06	Clayey Silt to Silty Clay	ML/CL	hard	110	2.0	18	2.376	2.376	3.28	0.86	0.50	17.3	2.83		18				2.03	4.4
13.41	44.0	61.01	2.05	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	20	2.404	2.404	2.13	0.77	0.53	30.7	2.52	87.5	13	18	28	31		
13.56	44.5	73.64	2.22	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	25	2.431	2.431	2.29	0.75	0.53	37.2	2.47	97.6	16	20	36	32		
13.72	45.0	79.36	1.67	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	26	2.459	2.459	1.73	0.72	0.54	40.8	2.36	88.3	17	18	40	32		
13.87	45.5	78.50	1.78	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	26	2.486	2.486	1.84	0.73	0.54	39.8	2.39	90.1	17	18	39	32		
14.02	46.0	57.57	2.60	Sandy Silt to Clayey Silt	ML	hard	110	2.5	23	2.514	2.514	2.72	0.80	0.50	27.2	2.62		23				3.24	6.6
14.17	46.5	30.58	2.57	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	12	2.541	2.541	2.80	0.88	0.46	13.4	2.88		12				1.65	3.3
14.33	47.0	63.37	3.65	Clayey Silt to Silty Clay	ML/CL	hard	110	2.0	32	2.569	2.569	3.81	0.82	0.48	28.9	2.70		32				3.58	7.1
14.48	47.5	92.91	1.63	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	31	2.596	2.596	1.67	0.71	0.53	46.6	2.31	92.1	19	18	45	33		
14.63	48.0	34.49	3.63	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	17	2.624	2.624	3.93	0.90	0.44	14.4	2.94		17				1.87	3.6
14.78	48.5	18.30	3.69	Silty Clay to Clay	CL	stiff	110	1.5	12	2.651	2.651	4.32	0.99	0.40	7.0	3.22		12				0.92	1.8
14.94	49.0	14.79	4.06	Silty Clay to Clay	CL	stiff	110	1.5	10	2.679	2.679	4.96	1.00	0.39	5.5	3.33		10				0.71	1.4
15.09	49.5	27.73	3.46	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	14	2.706	2.706	3.83	0.93	0.42	11.0	3.03		14				1.47	2.8
15.24	50.0	53.69	2.53	Sandy Silt to Clayey Silt	ML	hard	110	2.5	21	2.734	2.734	2.66	0.82	0.46	23.4	2.67		21				3.00	5.6

Earth Systems

CPT No: CPT-3
Project Name: Somis Ranch Farmworker Housing
Project No.: 302947-001
Location: See Site Exploration Plan

CPT Vendor: **Middle Earth GeoTesting**
Truck Mounted Electric
Cone with 23-ton reaction
Date: 6/24/2019



Earth Systems

CONE PENETROMETER INTERPRETATION

(based on Robertson & Campanella, 1989)

Project: Somis Ranch Farmworker Housing

Project No: 302947-001

Date: 06/24/19

CPT SOUNDING: CPT-3 Plot: 2 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Est. GWT (feet): **55.0** Dr correlation: 0 Baldi Qc/N: 1 Robertson Phi Correlation: 4 SPT N

Nk: 17

Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	2.6 Ic	Clean Sand Qc1n	$N_{1(60)}$	Clean Sand $N_{1(60)}$	Rel. Dens. Dr (%)	Phi (deg.)	Su (tsf)	OCR
0.15	0.5	12.90	4.05	Clay	CL/CH	stiff	110	1.0	13	0.014	0.014	4.05	0.86	1.70	20.7	2.82		13				0.76	####
0.30	1.0	13.05	5.39	Clay	CL/CH	stiff	110	1.0	13	0.041	0.041	5.40	0.88	1.70	21.0	2.90		13				0.77	94.6
0.46	1.5	13.26	4.79	Clay	CL/CH	stiff	110	1.0	13	0.069	0.069	4.82	0.87	1.70	21.3	2.86		13				0.78	57.6
0.61	2.0	9.25	5.49	Clay	CL/CH	stiff	110	1.0	9	0.096	0.096	5.55	0.92	1.70	14.9	3.02		9				0.54	28.5
0.76	2.5	7.56	5.91	Clay	CL/CH	firm	110	1.0	8	0.124	0.124	6.01	0.94	1.70	12.1	3.11		8				0.44	18.0
0.91	3.0	7.71	5.96	Clay	CL/CH	firm	110	1.0	8	0.151	0.151	6.08	0.94	1.70	12.4	3.11		8				0.44	15.0
1.07	3.5	7.88	5.65	Clay	CL/CH	firm	110	1.0	8	0.179	0.179	5.78	0.94	1.70	12.7	3.09		8				0.45	12.9
1.22	4.0	8.27	5.74	Clay	CL/CH	firm	110	1.0	8	0.206	0.206	5.89	0.93	1.70	13.3	3.08		8				0.47	11.7
1.37	4.5	8.43	6.14	Clay	CL/CH	firm	110	1.0	8	0.234	0.234	6.31	0.94	1.70	13.6	3.09		8				0.48	10.5
1.52	5.0	8.06	5.50	Clay	CL/CH	firm	110	1.0	8	0.261	0.261	5.69	0.93	1.70	13.0	3.08		8				0.46	9.0
1.68	5.5	7.31	5.52	Clay	CL/CH	firm	110	1.0	7	0.289	0.289	5.75	0.95	1.70	11.7	3.11		7				0.41	7.3
1.83	6.0	6.41	5.40	Clay	CL/CH	firm	110	1.0	6	0.316	0.316	5.68	0.96	1.70	10.3	3.15		6				0.36	5.8
1.98	6.5	6.15	4.30	Clay	CL/CH	firm	110	1.0	6	0.344	0.344	4.55	0.95	1.70	9.9	3.11		6				0.34	5.1
2.13	7.0	3.12	7.20	Organic Material	OL/OH	soft	110	1.0	3	0.371	0.371	8.18	1.00	1.70	5.0	3.50		3				0.16	2.2
2.29	7.5	5.84	6.03	Clay	CL/CH	firm	110	1.0	6	0.399	0.399	6.47	0.98	1.70	9.4	3.22		6				0.32	4.1
2.44	8.0	6.39	5.35	Clay	CL/CH	firm	110	1.0	6	0.426	0.426	5.73	0.96	1.70	10.3	3.16		6				0.35	4.2
2.59	8.5	6.01	5.23	Clay	CL/CH	firm	110	1.0	6	0.454	0.454	5.66	0.97	1.70	9.7	3.17		6				0.33	3.7
2.74	9.0	5.92	5.08	Clay	CL/CH	firm	110	1.0	6	0.481	0.481	5.53	0.97	1.70	9.5	3.17		6				0.32	3.4
2.90	9.5	6.54	5.44	Clay	CL/CH	firm	110	1.0	7	0.509	0.509	5.90	0.96	1.70	10.5	3.16		7				0.35	3.6
3.05	10.0	6.65	5.59	Clay	CL/CH	firm	110	1.0	7	0.536	0.536	6.08	0.96	1.70	10.7	3.16		7				0.36	3.4
3.20	10.5	6.29	5.70	Clay	CL/CH	firm	110	1.0	6	0.564	0.564	6.26	0.97	1.70	10.1	3.18		6				0.34	3.0
3.35	11.0	6.62	5.35	Clay	CL/CH	firm	110	1.0	7	0.591	0.591	5.87	0.96	1.70	10.6	3.15		7				0.35	3.1
3.51	11.5	6.03	4.47	Clay	CL/CH	firm	110	1.0	6	0.619	0.619	4.98	0.96	1.68	9.6	3.14		6				0.32	2.6
3.66	12.0	6.14	4.57	Clay	CL/CH	firm	110	1.0	6	0.646	0.646	5.10	0.97	1.61	9.4	3.16		6				0.32	2.6
3.81	12.5	6.22	4.66	Clay	CL/CH	firm	110	1.0	6	0.674	0.674	5.22	0.97	1.55	9.1	3.17		6				0.33	2.5
3.96	13.0	6.15	4.74	Clay	CL/CH	firm	110	1.0	6	0.701	0.701	5.34	0.98	1.50	8.7	3.19		6				0.32	2.3
4.11	13.5	6.75	4.60	Clay	CL/CH	firm	110	1.0	7	0.729	0.729	5.15	0.97	1.44	9.2	3.17		7				0.35	2.5
4.27	14.0	7.87	4.86	Clay	CL/CH	firm	110	1.0	8	0.756	0.756	5.37	0.96	1.38	10.3	3.14		8				0.42	2.8
4.42	14.5	7.52	4.77	Clay	CL/CH	firm	110	1.0	8	0.784	0.784	5.33	0.97	1.34	9.5	3.16		8				0.40	2.6
4.57	15.0	7.56	5.10	Clay	CL/CH	firm	110	1.0	8	0.811	0.811	5.72	0.98	1.30	9.3	3.19		8				0.40	2.5
4.72	15.5	8.07	5.19	Clay	CL/CH	firm	110	1.0	8	0.839	0.839	5.79	0.97	1.25	9.6	3.18		8				0.43	2.6
4.88	16.0	8.29	5.06	Clay	CL/CH	firm	110	1.0	8	0.866	0.866	5.65	0.97	1.21	9.5	3.18		8				0.44	2.6
5.03	16.5	7.62	4.82	Clay	CL/CH	firm	110	1.0	8	0.894	0.894	5.46	0.98	1.18	8.5	3.21		8				0.40	2.3
5.18	17.0	8.08	4.99	Clay	CL/CH	firm	110	1.0	8	0.921	0.921	5.64	0.98	1.15	8.7	3.21		8				0.42	2.3
5.33	17.5	7.93	4.92	Clay	CL/CH	firm	110	1.0	8	0.949	0.949	5.59	0.99	1.11	8.3	3.22		8				0.41	2.2
5.49	18.0	7.50	4.85	Clay	CL/CH	firm	110	1.0	7	0.976	0.976	5.58	1.00	1.08	7.7	3.25		7				0.38	2.0
5.64	18.5	7.72	5.31	Clay	CL/CH	firm	110	1.0	8	1.004	1.004	6.10	1.00	1.05	7.7	3.27		8				0.39	2.0
5.79	19.0	8.30	5.16	Clay	CL/CH	firm	110	1.0	8	1.031	1.031	5.90	1.00	1.03	8.0	3.25		8				0.43	2.1
5.94	19.5	8.17	4.98	Clay	CL/CH	firm	110	1.0	8	1.059	1.059	5.72	1.00	1.00	7.7	3.25		8				0.42	2.0
6.10	20.0	7.99	5.18	Clay	CL/CH	firm	110	1.0	8	1.086	1.086	6.00	1.00	0.97	7.4	3.28		8				0.41	1.9
6.25	20.5	8.11	5.28	Clay	CL/CH	firm	110	1.0	8	1.114	1.114	6.12	1.00	0.95	7.3	3.29		8				0.41	1.9
6.40	21.0	8.31	5.50	Clay	CL/CH	firm	110	1.0	8	1.141	1.141	6.37	1.00	0.93	7.3	3.30		8				0.42	1.9
6.55	21.5	11.32	5.45	Clay	CL/CH	stiff	110	1.0	11	1.169	1.169	6.08	0.98	0.91	9.7	3.19		11				0.60	2.6
6.71	22.0	15.26	4.68	Clay	CL/CH	stiff	110	1.0	15	1.196	1.196	5.08	0.93	0.89	12.9	3.05		15				0.83	3.5
6.86	22.5	13.70	5.10	Clay	CL/CH	stiff	110	1.0	14	1.224	1.224	5.60	0.95	0.87	11.3	3.12		14				0.73	3.1
7.01	23.0	11.44	5.18	Clay	CL/CH	stiff	110	1.0	11	1.251	1.251	5.82	0.98	0.85	9.2	3.20		11				0.60	2.4
7.16	23.5	16.18	3.99	Silty Clay to Clay	CL	stiff	110	1.5	11	1.279	1.279	4.33	0.92	0.84	12.9	3.00		11				0.88	3.5
7.32	24.0	16.93	3.80	Silty Clay to Clay	CL	stiff	110	1.5	11	1.306	1.306	4.12	0.91	0.83	13.2	2.98		11				0.92	3.6
7.47	24.5	13.78	5.49	Clay	CL/CH	stiff	110	1.0	14	1.334	1.334	6.08	0.97	0.80	10.4	3.17		14				0.73	2.8
7.62	25.0	16.95	4.54	Clay	CL/CH	stiff	110	1.0	17	1.361	1.361	4.94	0.93	0.79	12.7	3.04		17				0.92	3.4
7.77	25.5	16.53	3.63	Silty Clay to Clay	CL	stiff	110	1.5	11	1.389	1.389	3.96	0.92	0.78	12.2	3.00		11				0.89	3.3
7.92	26.0	20.15	3.20	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	10	1.416	1.416	3.44	0.88	0.77	14.7	2.90		10				1.10	4.0
8.08	26.5	32.15	2.62	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	13	1.444	1.444	2.74	0.81	0.78	23.6	2.67		13				1.81	6.4
8.23	27.0	39.04	2.47	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	16	1.471	1.471	2.57	0.79	0.77	28.4	2.59	93.4	13	19	25	31		
8.38	27.5	36.55	2.62	Sandy Silt to Clayey Silt	ML	hard	110	2.5	15	1.499	1.499	2.73	0.80	0.76	26.1	2.64		15				2.06	7.0
8.53	28.0	25.33	2.41	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	10	1.526	1.526	2.57	0.84	0.73	17.6	2.76		10				1.40	4.7
8.69	28.5	95.29	1.21	Sand to Silty Sand	SP/SM	medium dense	100	4.0	24	1.553	1.553	1.23	0.64	0.78	70.6	2.09	100.9	19	20	62	33		
8.84	29.0	103.32	1.22	Sand to Silty Sand	SP/SM	medium dense	100	4.0	26	1.578	1.578	1.24	0.63	0.78	76.0	2.06	105.5	21	21	65	33		
8.99	29.5	38.93	3.01	Sandy Silt to Clayey Silt	ML	hard	110	2.5	16	1.604	1.604	3.14	0.82	0.71	26.2	2.68		16				2.20	7.0
9.14	30.0	19.91	4.08	Silty Clay to Clay	CL	very stiff	110	1.5	13	1.631	1.631	4.44	0.92	0.67	12.6	3.02		13				1.08	3.4
9.30	30.5	24.72	2.90	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	12	1.659	1.659	3.11	0.87	0.68	15.8	2.84		12				1.36	4.2
9.45	31.0	52.95	1.63	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	18	1.686	1.686	1.68	0.73	0.71	35.6	2.40	82.6	14	17	34	31		
9.60	31.5	77.22	1.38	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	26	1.714	1.714	1.41	0.68	0.72	52.6	2.22	90.6	20	18	50	33		
9.75	32.0	48.74	2.25	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	19	1.741	1.741	2.33	0.77	0.68	31.4	2.53	92.3	15	18	29	32		
9.91	32.5	43.54	2.29	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	17	1.769	1.769	2.38	0.79	0.67	27.5	2.58	88.7	13	18	23	31		
10.06	33.0	50.67	1.80	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	17	1.796	1.796	1.87	0.75	0.67	32.2	2.47	83.6	13	17	30	31		
10.21	33.5	26.63	2.57	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	11	1.824	1.824	2.75	0.86	0.63	15.8	2.81		11				1.46	4.1
10.36	34.0	44.13	1.71	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	15	1.851	1.851	1.78	0.77	0.65	27.2	2.51	76.8	11	15	23	30		
10.52	34.5	43.54	2.32	Sandy Silt to Clayey Silt	ML	hard	110	2.5	17	1.879	1.879	2.43	0.80	0.63	26.1	2.61		17				2.45	6.7
10.67	35.0	32.61	2.86	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	13	1.906	1.906	3.04	0.85	0.61	18.7	2.78		13				1.81	4.8
10.82	35.5	60.16	1.95	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	20	1.934	1.934	2.02	0.75	0.64	36.3	2.44	90.8	14	18	35	31		
10.97	36.0	93.44	1.37	Sand to Silty Sand	SP/SM	medium dense	100	4.0	23	1.960	1.960	1.40	0.67	0.66	58.6	2.18	95.1	17	19	55	32		
11.13	36.5	84.57	2.14	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	28	1.986	1.986	2.19	0.72	0.64	50.9	2.36	108.8	20	22	49	33		
11.28	37.0	53.87	2.67	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	22	2.014	2.014	2.78	0.79	0.60	30.6	2.59	99.9	15	20	28	32		
11.43	37.5	24.26	4.26	Silty Clay to Clay	CL	very stiff	110	1.5	16	2.041	2.041	4.65	0.93	0.54	12.5	3.03		16				1.31	3.3

Earth Systems

CONE PENETROMETER INTERPRETATION

(based on Robertson & Campanella, 1989)

Project: Somis Ranch Farmworker Housing Project No: 302947-001 Date: 06/24/19

CPT SOUNDING: CPT-3 Plot: 2 Density: 1 SPT N Program developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Est. GWT (feet): **55.0** Dr correlation: 0 Baldi Qc/N: 1 Robertson Phi Correlation: 4 SPT N

Base Depth meters	Base Depth feet	Avg Tip Qc, tsf	Avg Friction Ratio, %	Soil Classification	USCS	Density or Consistency	Est. Density (pcf)	Qc to N	SPT N(60)	Total po tsf	p'o tsf	F	n	Cq	Norm. Qc1n	2.6 Ic	Clean Sand Qc1n	$N_{1(60)}$	Clean Sand $N_{1(60)}$	Rel. Dens. Dr (%)	Phi (deg.)	Nk: 17 Su (tsf)	OCR
11.58	38.0	71.02	1.63	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	24	2.069	2.069	1.68	0.72	0.62	41.5	2.35	87.8	16	18	40	32		
11.73	38.5	70.35	0.80	Sand to Silty Sand	SP/SM	medium dense	100	4.0	18	2.095	2.095	0.82	0.66	0.64	42.3	2.17	67.1	12	13	41	31		
11.89	39.0	29.88	2.89	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	15	2.121	2.121	3.11	0.87	0.55	15.4	2.85		15				1.63	3.9
12.04	39.5	45.04	2.65	Sandy Silt to Clayey Silt	ML	hard	110	2.5	18	2.149	2.149	2.79	0.82	0.56	23.9	2.67		18				2.52	6.0
12.19	40.0	76.38	2.13	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	25	2.176	2.176	2.20	0.74	0.59	42.4	2.42	100.8	17	20	41	32		
12.34	40.5	80.02	2.42	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	27	2.204	2.204	2.49	0.74	0.58	43.8	2.44	108.8	18	22	43	33		
12.50	41.0	42.19	3.47	Clayey Silt to Silty Clay	ML/CL	hard	110	2.0	21	2.231	2.231	3.67	0.85	0.53	21.1	2.79		21				2.35	5.4
12.65	41.5	29.16	3.86	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	15	2.259	2.259	4.19	0.91	0.50	13.8	2.97		15				1.58	3.6
12.80	42.0	31.42	3.37	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	16	2.286	2.286	3.63	0.89	0.50	15.0	2.90		16				1.71	3.8
12.95	42.5	32.50	3.68	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	16	2.314	2.314	3.97	0.89	0.50	15.3	2.92		16				1.78	3.9
13.11	43.0	28.23	3.23	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	14	2.341	2.341	3.53	0.90	0.49	13.0	2.94		14				1.52	3.3
13.26	43.5	32.15	3.23	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	16	2.369	2.369	3.49	0.89	0.49	14.9	2.90		16				1.75	3.8
13.41	44.0	26.56	3.83	Clayey Silt to Silty Clay	ML/CL	very stiff	110	2.0	13	2.396	2.396	4.21	0.93	0.47	11.8	3.03		13				1.42	3.0
13.56	44.5	40.54	3.17	Clayey Silt to Silty Clay	ML/CL	hard	110	2.0	20	2.424	2.424	3.37	0.86	0.49	18.8	2.81		20				2.24	4.7
13.72	45.0	74.77	2.42	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	30	2.451	2.451	2.50	0.76	0.53	37.3	2.49	102.2	19	20	36	33		
13.87	45.5	95.31	2.26	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	32	2.479	2.479	2.32	0.73	0.54	48.4	2.39	109.5	20	22	47	33		
14.02	46.0	115.50	2.20	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	38	2.506	2.506	2.25	0.71	0.54	59.4	2.31	118.3	24	24	55	34		
14.17	46.5	107.84	2.50	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	36	2.534	2.534	2.56	0.73	0.53	54.1	2.38	120.8	23	24	51	34		
14.33	47.0	86.65	2.60	Silty Sand to Sandy Silt	SM/ML	medium dense	110	3.0	29	2.561	2.561	2.68	0.76	0.51	42.0	2.47	111.1	18	22	41	33		
14.48	47.5	55.28	2.64	Sandy Silt to Clayey Silt	ML	hard	110	2.5	22	2.589	2.589	2.77	0.81	0.48	25.3	2.65		22				3.10	6.1
14.63	48.0	56.27	2.24	Sandy Silt to Clayey Silt	ML	medium dense	110	2.5	23	2.616	2.616	2.34	0.79	0.49	25.9	2.60	86.1	14	17	21	31		
14.78	48.5	35.91	2.67	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	14	2.644	2.644	2.88	0.87	0.45	15.3	2.84		14				1.96	3.8
14.94	49.0	34.92	2.75	Sandy Silt to Clayey Silt	ML	very stiff	110	2.5	14	2.671	2.671	2.98	0.88	0.44	14.7	2.86		14				1.90	3.6
15.09	49.5	43.22	2.83	Sandy Silt to Clayey Silt	ML	hard	110	2.5	17	2.699	2.699	3.01	0.85	0.45	18.4	2.78		17				2.38	4.5
15.24	50.0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	###	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

BORING LOG SYMBOLS


Modified California Split Barrel Sampler


Modified California Split Barrel Sampler - No Recovery


Standard Penetration Test (SPT) Sampler


Standard Penetration Test (SPT) Sampler - No Recovery


Perched Water Level


Water Level First Encountered


Water Level After Drilling


Pocket Penetrometer (tsf)


Vane Shear (ksf)

1. The location of borings were approximately determined by pacing and/or siting from visible features. Elevations of borings are approximately determined by interpolating between plan contours. The location and elevation of the borings should be considered.

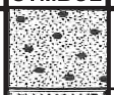
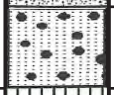
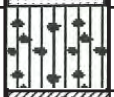
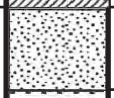
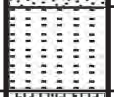
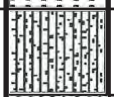
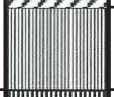
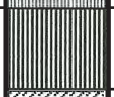
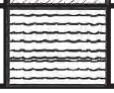
2. The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

3. Water level readings have been made in the drill holes at times and under conditions stated on the boring logs. This data has been reviewed and interpretations made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, tides, temperature, and other factors at the time measurements were made.

BORING LOG SYMBOLS

Earth Systems

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNTOF FINES)		SM	SILTY SANDS, SAND-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENT

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

UNIFIED SOIL CLASSIFICATION SYSTEM

Earth Systems

APPENDIX B

Laboratory Testing
Tabulated Laboratory Test Results
Individual Laboratory Test Results

LABORATORY TESTING

A. Samples were reviewed along with field logs to determine which would be analyzed further. Those chosen for laboratory analyses were considered representative of soils that would be exposed and/or used during grading, and those deemed to be within the influence of proposed structures. Test results are presented in graphic and tabular form in this Appendix.

B. In-situ moisture content and dry unit weight for the ring samples were determined in general accordance with ASTM D 2937.

C. Maximum density tests were performed to estimate the moisture-density relationship of typical soil materials. The tests were performed in accordance with ASTM D 1557.

D. The relative strength characteristics of soils were determined from the results of direct shear tests on two remolded samples. The specimens were placed in contact with water at least 24 hours before testing, and were then sheared under normal loads ranging from 1 to 3 ksf in general accordance with ASTM D 3080.

E. Settlement characteristics were developed from the results of one-dimensional consolidation/hydrocollapse tests performed in general accordance with ASTM D 2435. The samples were incrementally loaded to their appropriate overburden pressure and then flooded with water. After monitoring for collapse, the samples were incrementally loaded up to 8 ksf. The samples were allowed to consolidate under each load increment. Rebound was measured under reverse alternate loading. Compression was measured by dial gauges accurate to 0.0001 inch. Results of the consolidation tests are presented in this Appendix in the form of percent consolidation versus log of pressure curves.

F. Expansion index tests were performed on bulk soil samples in accordance with ASTM D 4829. The samples were surcharged under 144 pounds per square foot at moisture content of near 50 percent saturation. Samples were then submerged in water for 24 hours and the amount of expansion was recorded with a dial indicator.

G. The gradation characteristics of certain samples were evaluated by hydrometer (in accordance with ASTM D 7928) and sieve analysis procedures. The samples were soaked in water until individual soil particles were separated, then washed on the No. 200 mesh sieve, oven dried, weighed to calculate the percent passing the No. 200 sieve, and mechanically sieved. Additionally, hydrometer analyses were performed to assess the distribution of the particles that passed the No. 200 screen. The hydrometer portions of the tests were run using sodium hexametaphosphate as a dispersing agent.

LABORATORY TESTING (Continued)

H. Resistance ("R") Value tests were conducted on bulk samples secured during the field study. The tests were performed in accordance with California Method 301. Three specimens at different moisture contents were tested for each sample, and the R-Value at 300 psi exudation pressure was determined from the plotted results.

I. Portions of the bulk samples were sent to another laboratory for analyses of soil pH, resistivity, chloride contents, and sulfate contents. Soluble chloride and sulfate contents were determined on a dry weight basis. Resistivity testing was performed in accordance with California Test Method 424, wherein the ratio of soil to water was 1:3.

J. The Plasticity Indices of selected samples were evaluated in accordance with ASTM D 4318.

TABULATED LABORATORY TEST RESULTS

REMOLDED SAMPLES

BORING AND DEPTH	B-1@0'-5'	B-8@0'-5'
USCS	CL	CL
MAXIMUM DRY DENSITY (pcf)	109.5	107.0
OPTIMUM MOISTURE (%)	16.0	15.5
PEAK COHESION (psf)	400	320
PEAK FRICTION ANGLE	27°	25°
ULTIMATE COHESION (psf)	0	90
ULTIMATE FRICTION ANGLE	33°	28°
EXPANSION INDEX	72	105
pH	8.3	8.4
RESISTIVITY (ohms-cm)	1,300	1,700
SOLUBLE CHLORIDES (mg/Kg)	100	85
SOLUBLE SULFATES (mg/Kg)	710	510

ATTERBERG LIMITS AND GRADATION

BORING AND DEPTH	B-1@25'	B-1@30'
USCS	ML	CL
LIQUID LIMIT	32	31
PLASTIC LIMIT	26	22
PLASTICITY INDEX	6	9
GRAIN SIZE DISTRIBUTION (%)		
GRAVEL	0.0	0.0
SAND	4.6	13.9
SILT	69.8	67.2
CLAY (2μm to 5μm)	6.2	6.6
CLAY (≤2μm)	19.4	12.3

Individual Laboratory Test Results

File Number: 302947-001 Lab Number: 098216

MAXIMUM DENSITY / OPTIMUM MOISTURE

ASTM D 1557-12 (Modified)

Job Name: Somis Ranch
Sample ID: B 1 @ 0-5'

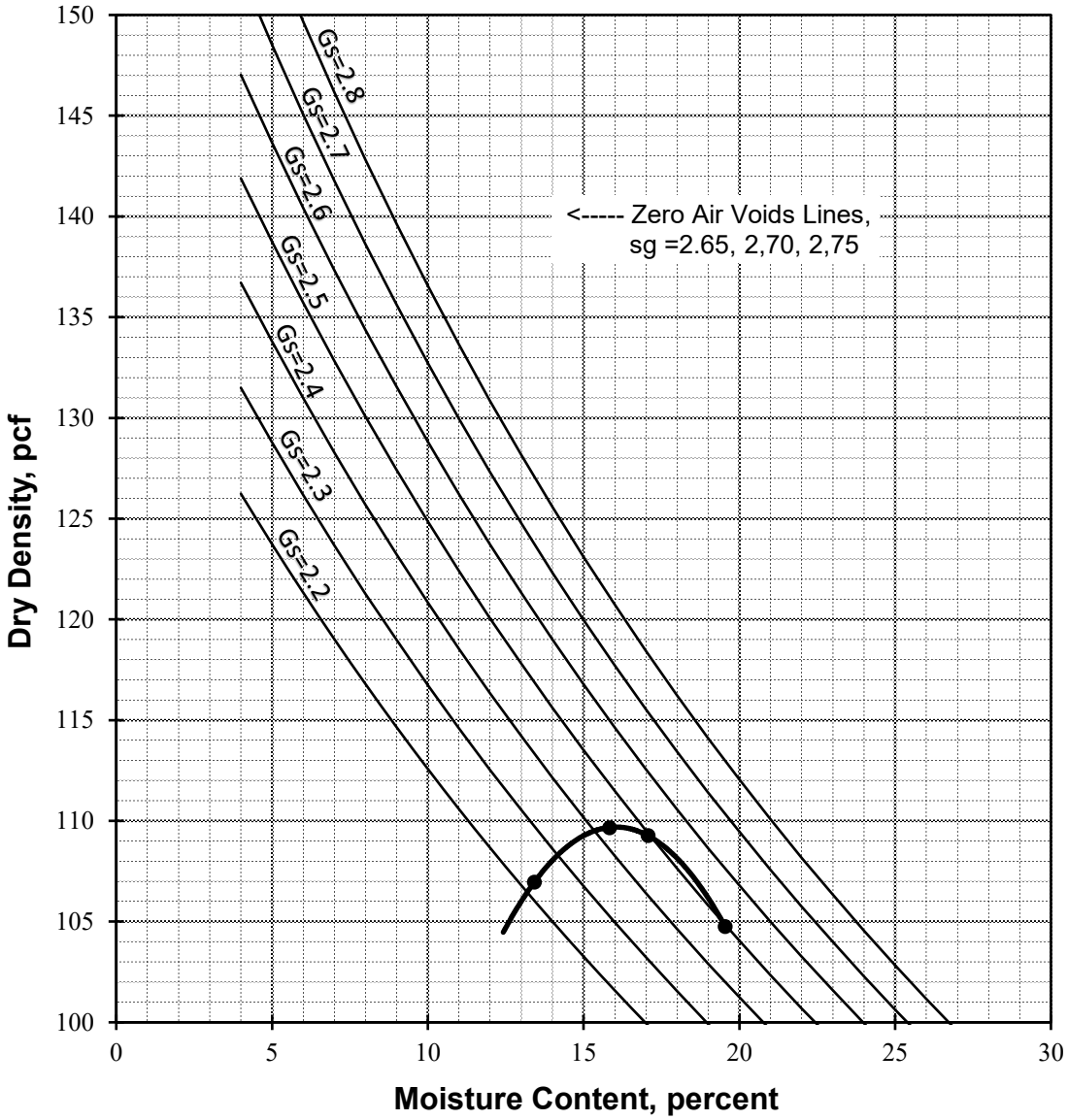
Procedure Used: B
Prep. Method: Moist

Date: 8/14/2019
Description: Olive Brown Silty Clay
SG: 2.50

Rammer Type: Automatic

Maximum Density: **109.5 pcf**
Optimum Moisture: **16%**

Sieve Size	% Retained
3/4"	0.0
3/8"	0.2
#4	0.0



File Number: 302947-001 Lab Number: 098216

MAXIMUM DENSITY / OPTIMUM MOISTURE

ASTM D 1557-12 (Modified)

Job Name: Somis Ranch
Sample ID: B 8 @ 0-5'

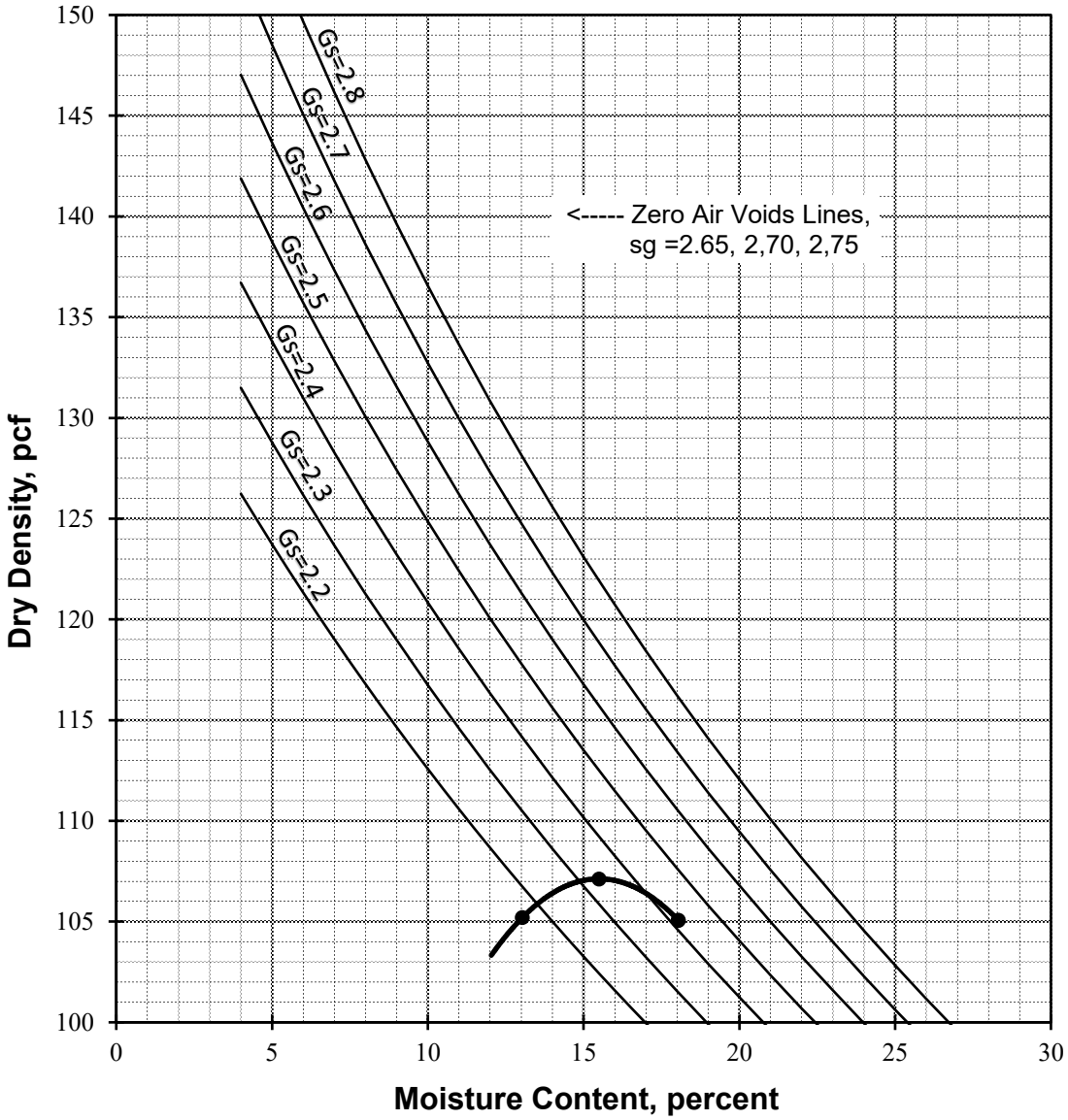
Procedure Used: A
Prep. Method: Moist

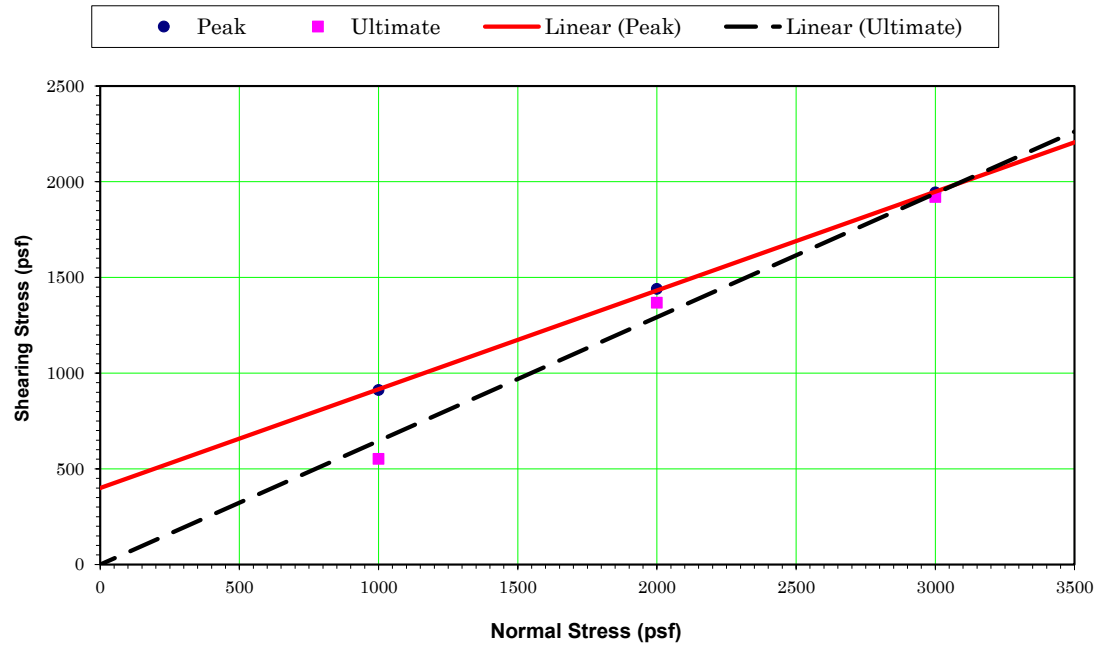
Date: 8/14/2019
Description: Dark Grayish Brown Silty Clay
SG: 2.34

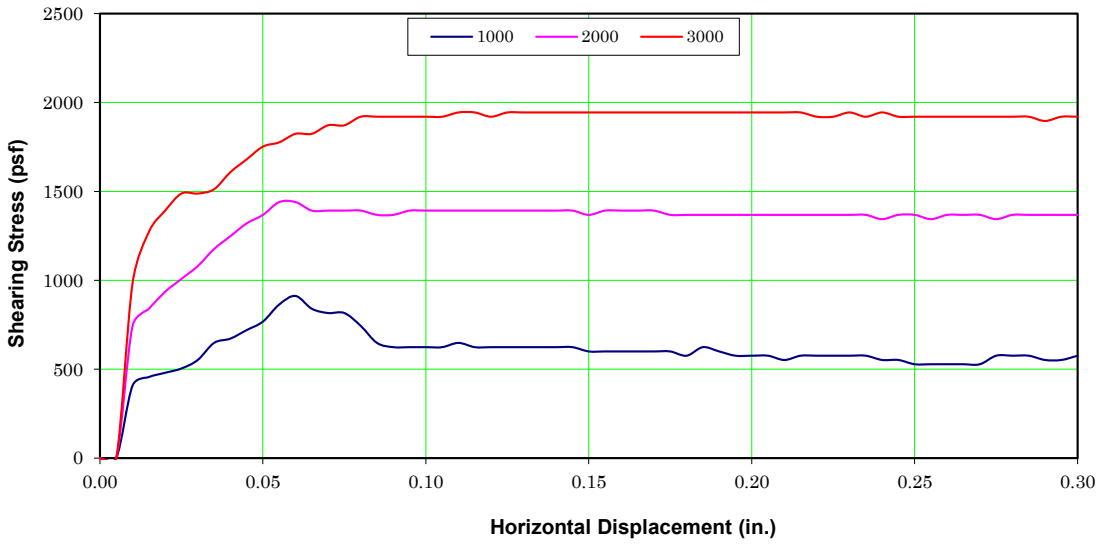
Rammer Type: Automatic

Maximum Density: **107 pcf**
Optimum Moisture: **15.5%**

Sieve Size	% Retained
3/4"	0.0
3/8"	0.0
#4	0.0







DIRECT SHEAR DATA*

Sample Location: B 1 @ 0-5'
Sample Description: Silty Clay
Dry Density (pcf): 98.7
Intial % Moisture: 16
Average Degree of Saturation: 100.0
Shear Rate (in/min): 0.005 in/min

Normal stress (psf)	1000	2000	3000
Peak stress (psf)	912	1440	1944
Ultimate stress (psf)	552	1368	1920

	Peak	Ultimate
ϕ Angle of Friction (degrees):	27	33
c Cohesive Strength (psf):	400	0

Test Type: Peak & Ultimate

* Test Method: ASTM D-3080

DIRECT SHEAR TEST

Somis Ranch Farmworker Housing

Earth Systems

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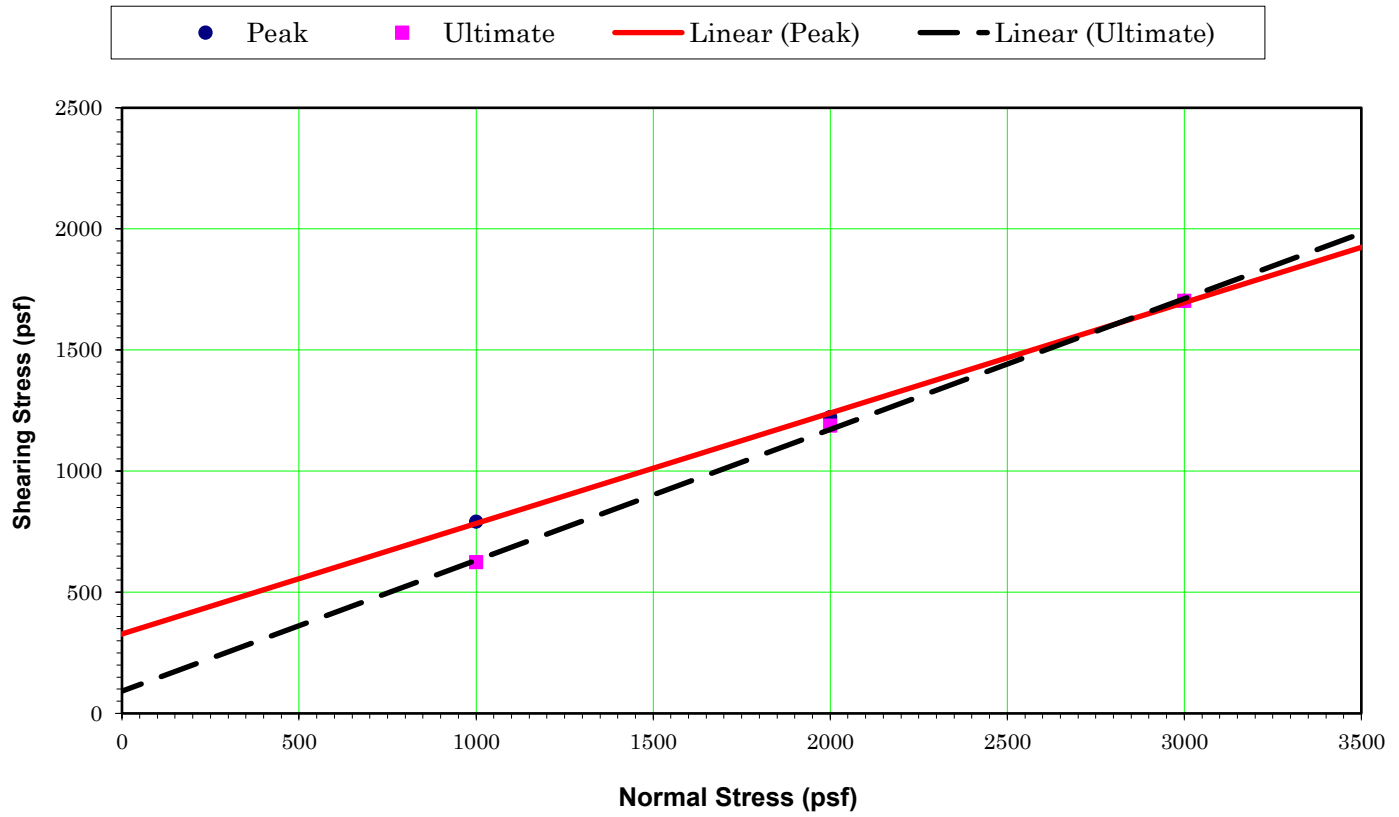
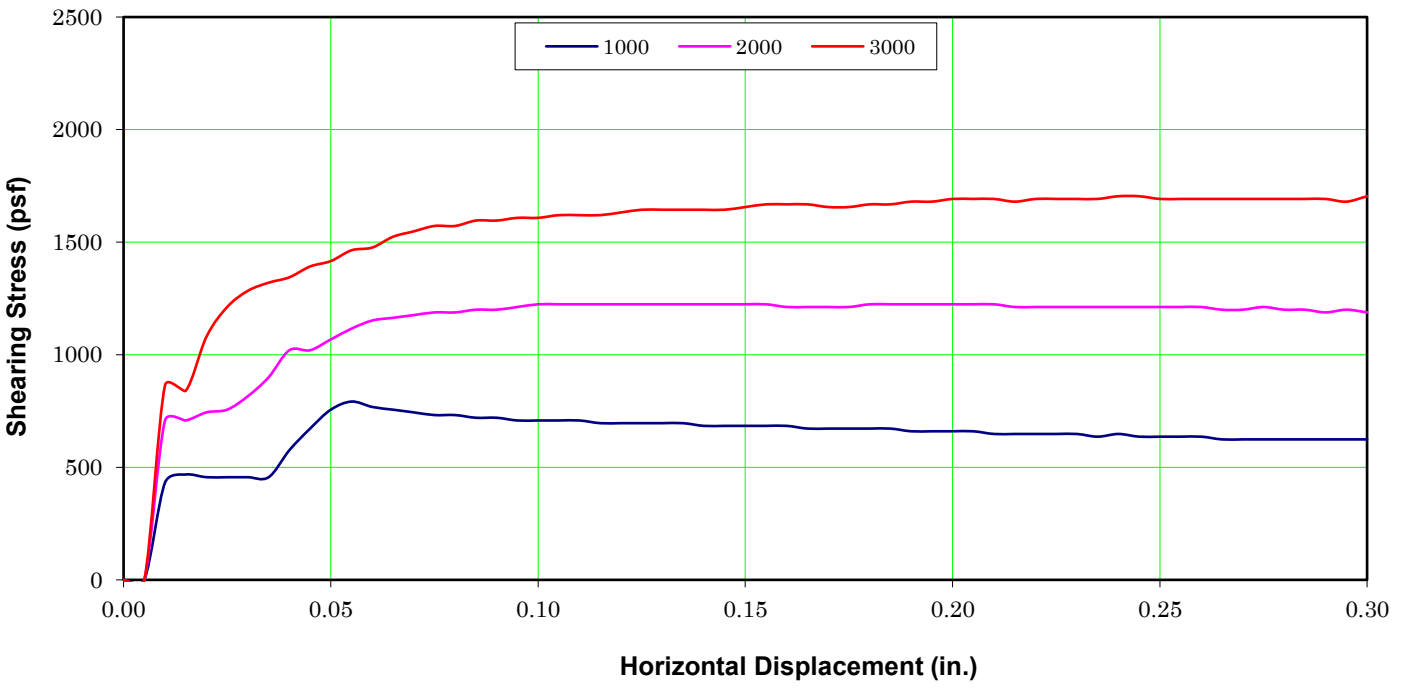




DIRECT SHEAR DATA*

Sample Location: B 8 @ 0-5'
Sample Description: Silty Clay with Sand
Dry Density (pcf): 96.5
Intial % Moisture: 15.5
Average Degree of Saturation: 100.0
Shear Rate (in/min): 0.005 in/min

Normal stress (psf)	1000	2000	3000
Peak stress (psf)	792	1224	1704
Ultimate stress (psf)	624	1188	1704

	Peak	Ultimate
ϕ Angle of Friction (degrees):	25	28
c Cohesive Strength (psf):	320	90

Test Type: Peak & Ultimate

* Test Method: ASTM D-3080

DIRECT SHEAR TEST

Somis Ranch Farmworker Housing

Earth Systems

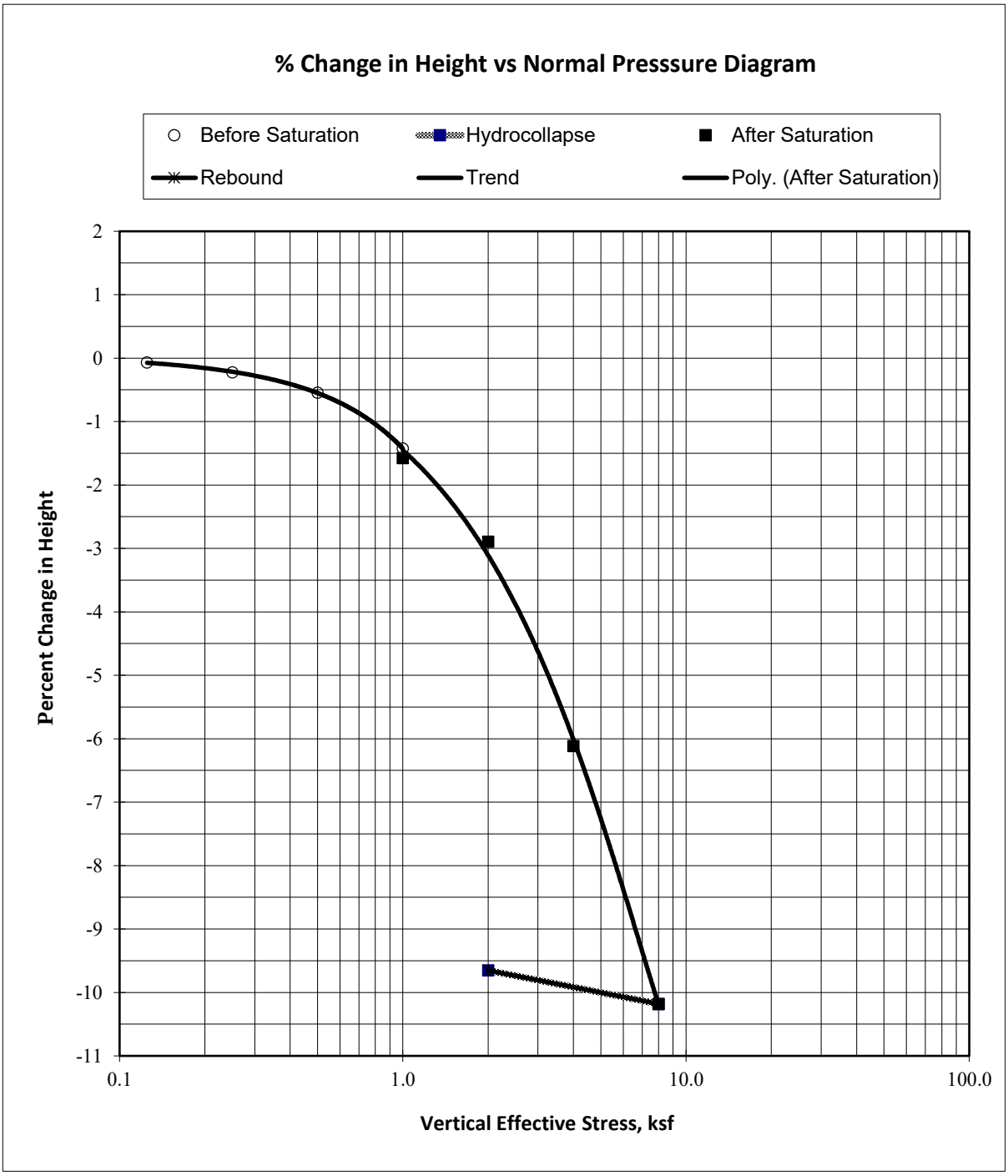
9/19/2019 | 302947-001

CONSOLIDATION TEST

ASTM D 2435-90 & D5333

Somis Ranch Farmworkers Housing
B 1 @ 10'
CL
Ring Sample

Initial Dry Density: 80.1 pcf
Initial Moisture, %: 34.5%
Specific Gravity: 2.67 (assume
Initial Void Ratio: 1.082

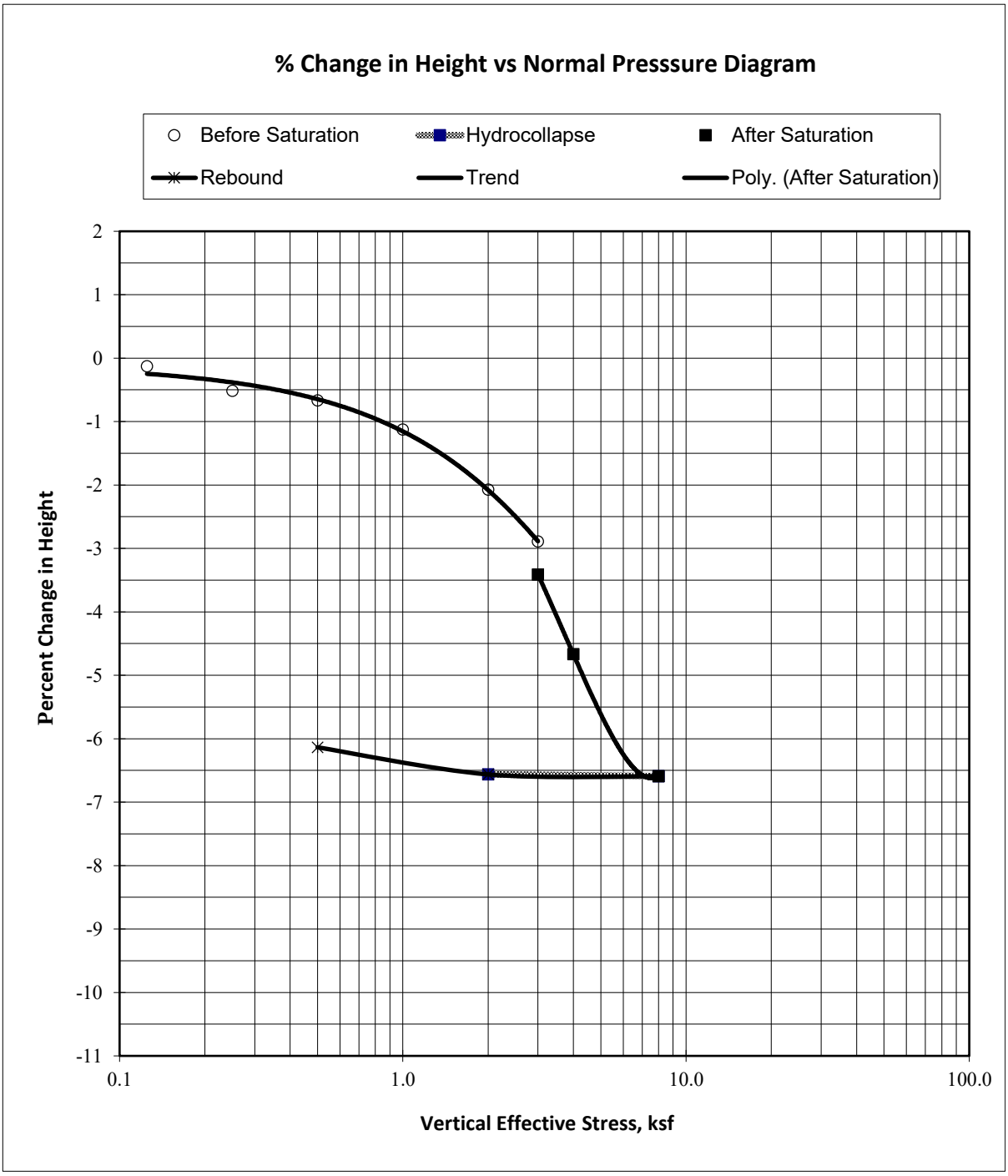


CONSOLIDATION TEST

ASTM D 2435-90 & D5333

Somis Ranch Farmworkers Housing
B 1 @ 30'
CL
Ring Sample

Initial Dry Density: 86.5 pcf
Initial Moisture, %: 31.4%
Specific Gravity: 2.67 (assume
Initial Void Ratio: 0.928

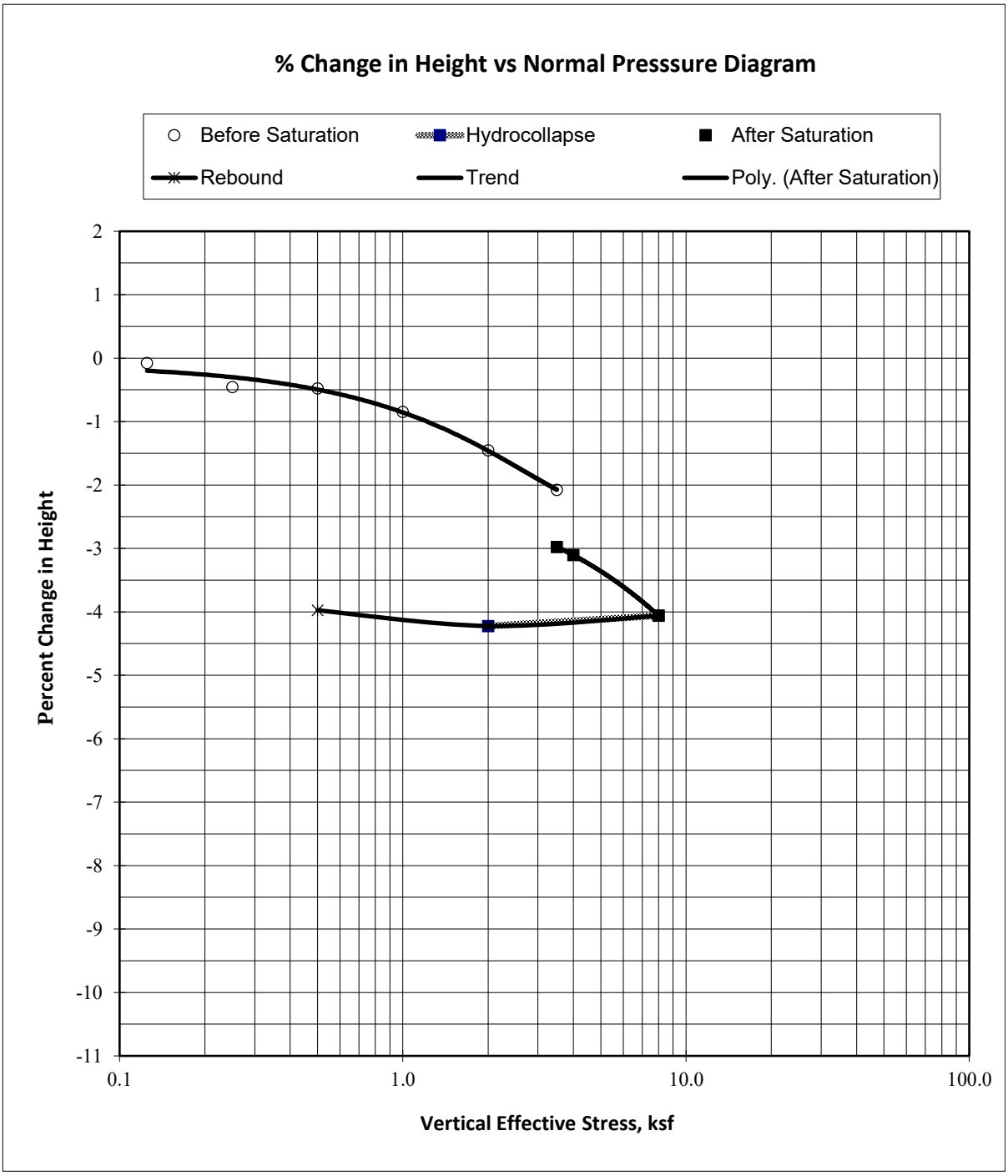


CONSOLIDATION TEST

ASTM D 2435-90 & D5333

Somis Ranch Farmworkers Housing
B 1 @ 35'
SM
Ring Sample

Initial Dry Density: 97.2 pcf
Initial Moisture, %: 18.5%
Specific Gravity: 2.67 (assume
Initial Void Ratio: 0.715

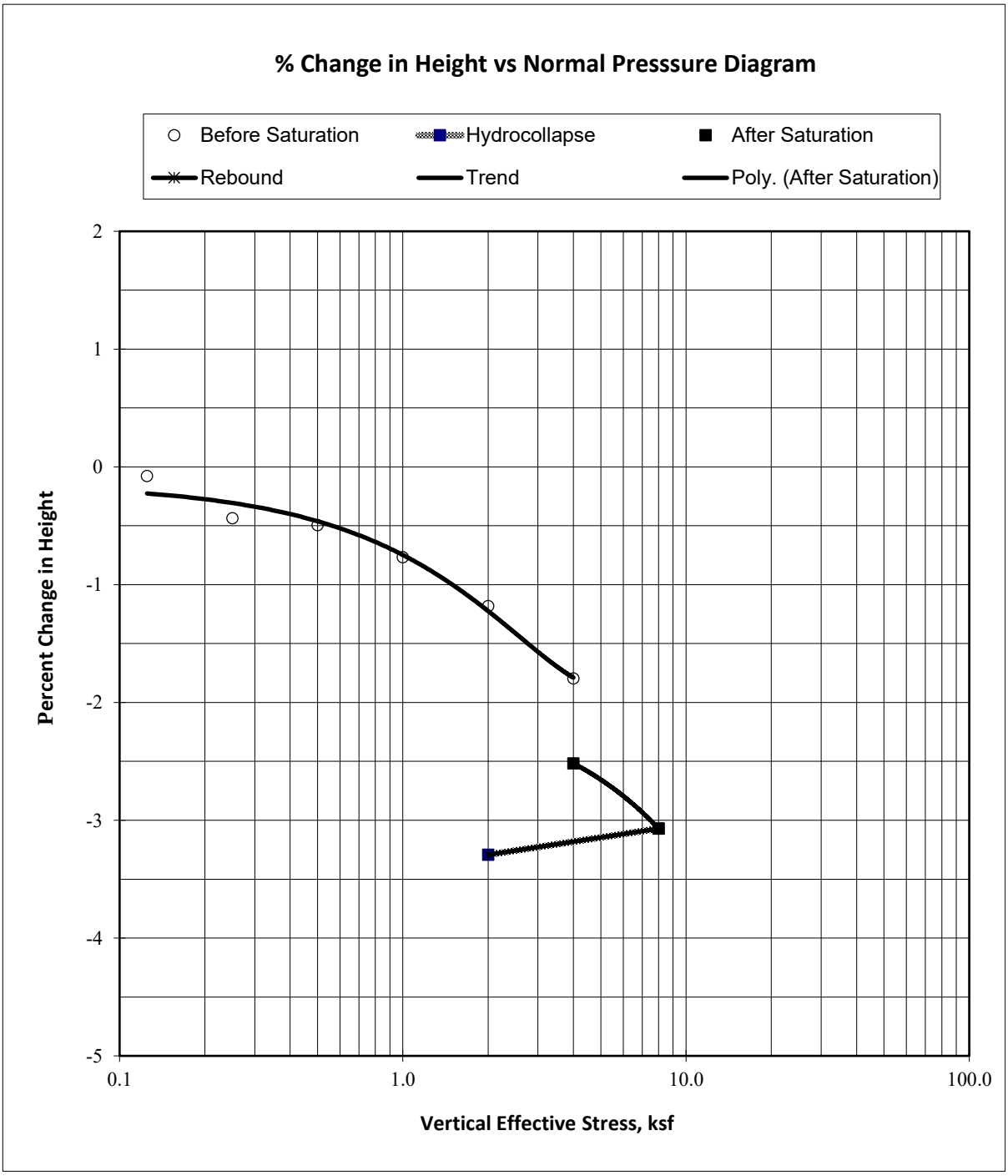


CONSOLIDATION TEST

ASTM D 2435-90 & D5333

Somis Ranch Farmworkers Housing
B 1 @ 40'
SP
Ring Sample

Initial Dry Density: 103.1 pcf
Initial Moisture, %: 5.1%
Specific Gravity: 2.67 (assume
Initial Void Ratio: 0.617



File No.: 302947-001

EXPANSION INDEX

ASTM D-4829, UBC 18-2

Job Name: Somis Ranch Farmworker Housing
Sample ID: B 1 @ 0-5'
Soil Description: CL

Initial Moisture, %:	13.2
Initial Compacted Dry Density, pcf:	99.1
Initial Saturation, %:	51
Final Moisture, %:	35.8
Volumetric Swell, %:	7.2
Expansion Index:	**72** **Medium**

EI	UBC Classification
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
130+	Very High

File No.: 302947-001

EXPANSION INDEX

ASTM D-4829, UBC 18-2

Job Name: Somis Ranch Farmworker Housing
Sample ID: B 8 @ 0-5'
Soil Description: CL

Initial Moisture, %:	12.4
Initial Compacted Dry Density, pcf:	101.6
Initial Saturation, %:	51
Final Moisture, %:	29.4
Volumetric Swell, %:	10.5
Expansion Index:	**105** **High**

EI	UBC Classification
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
130+	Very High

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 1 @ 25'**
Soil Description: **ML**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	672.4
Corrected Wt., g:	672.4

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.9	0.13	99.87
#10	2.7	0.40	99.60

Air Dry Hydro Sample Wt., g:	64.2
Corrected Wt., g:	64.2
Calculation Factor	0.6446

Hydrometer Analysis for <#10 Material

Start time: 1:23:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	1:23:20 AM	66	24	4.5	61.5
1 hour	2:23:00 AM	21	24	4.5	16.5
6 hour	7:23:00 AM	17	24	4.5	12.5

% Gravel:	0.0
% Sand(2mm - 74µm):	4.6
% Silt(74µm- 5µm):	69.8
% Clay(5µm - 2µm):	6.2
% Clay(≤2µm):	19.4

MECHANICAL ANALYSIS

CTM 203-08

Job Name: Somis Ranch Farmworker Housing
Job No.: 302947-001
Sample ID: **B 1 @ 30'**
Soil Description: **CL**
Hydrometer ID: 504229

Hydroscopic Moisture

Air Dry Wt, g:	100.0
Oven Dry Wt, g	100.0
% Moisture:	0.0

Air Dry Sample Wt., g:	540.6
Corrected Wt., g:	540.6

Sieve Analysis for +#10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.2	0.04	99.96
#10	0.5	0.09	99.91

Air Dry Hydro Sample Wt., g:	60.9
Corrected Wt., g:	60.9
Calculation Factor	0.6095

Hydrometer Analysis for <#10 Material

Start time: 3:02:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	3:02:20 AM	57	24	4.5	52.5
1 hour	4:02:00 AM	16	24	4.5	11.5
6 hour	9:02:00 AM	12	24	4.5	7.5

% Gravel:	0.0
% Sand(2mm - 74µm):	13.9
% Silt(74µm- 5µm):	67.2
% Clay(5µm - 2µm):	6.6
% Clay(≤2µm):	12.3

Somis Ranch Farmworker Housing 302947-001

RESISTANCE '*R* ' VALUE AND EXPANSION PRESSURE

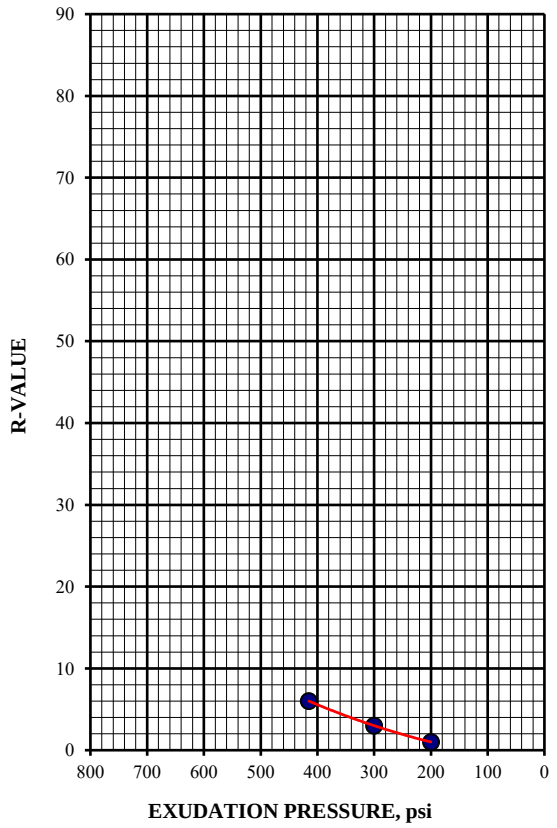
ASTM D 2844/D2844M-13

August 7, 2019

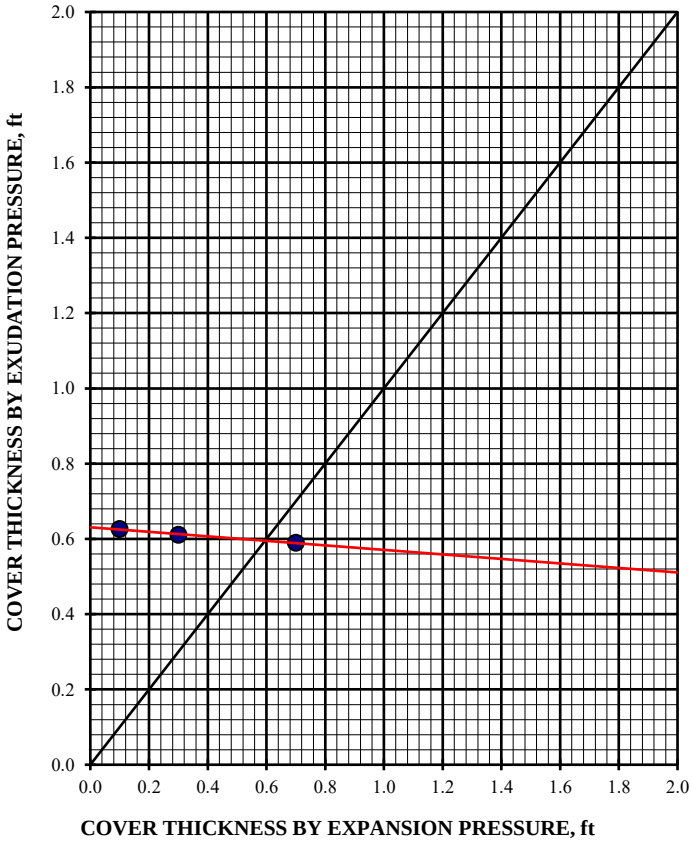
Boring #3 @ 0.0 - 3.0'
Dark Brown Lean Clay with Sand (CL)
Specified Traffic Index: 5.0

Dry Density @ 300 psi Exudation Pressure: 108.6-pcf
%Moisture @ 300 psi Exudation Pressure: 26.0%
R-Value - Exudation Pressure: 3
R-Value - Expansion Pressure: 6
R-Value @ Equilibrium: 3

EXUDATION PRESSURE CHART



EXPANSION PRESSURE CHART



Somis Ranch Farmworker Housing 302947-001

RESISTANCE '*R* ' VALUE AND EXPANSION PRESSURE

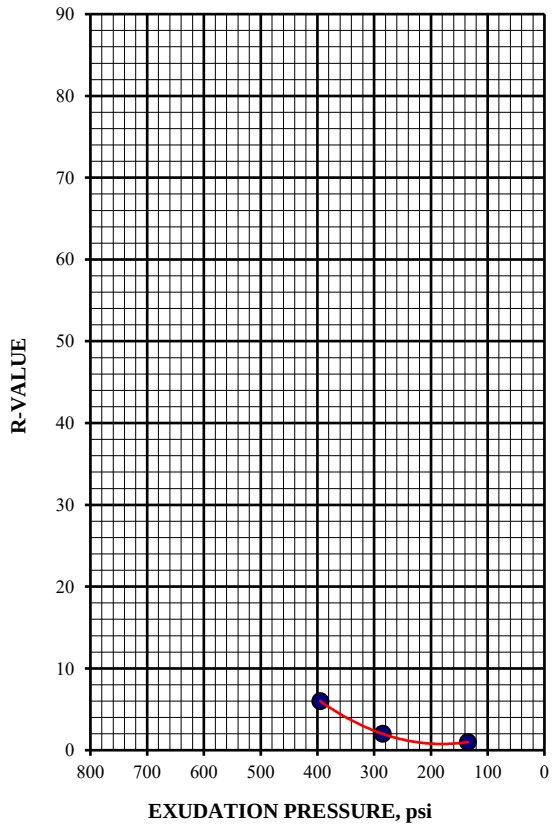
ASTM D 2844/D2844M-13

August 7, 2019

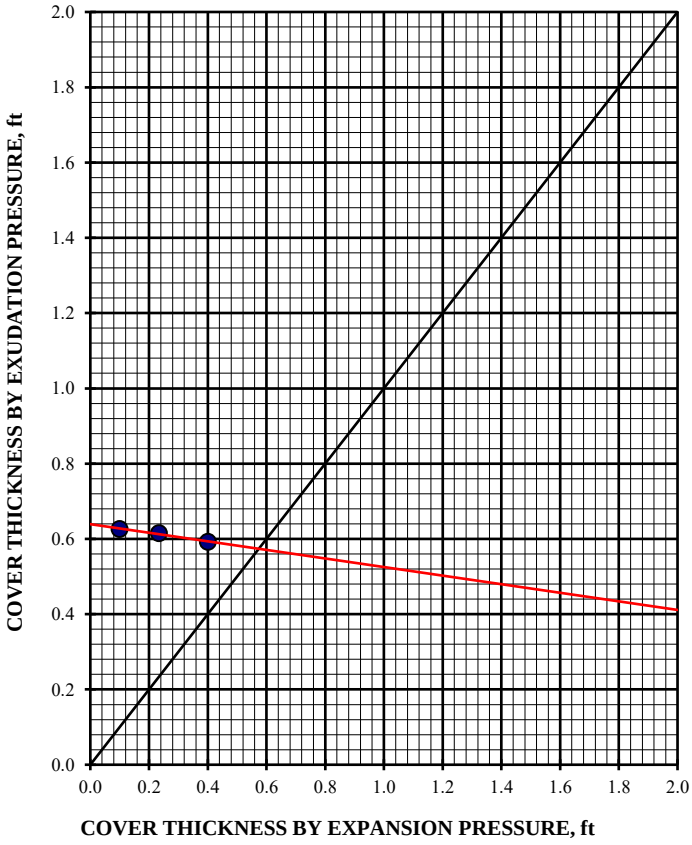
R-Value #2
Dark Brown Lean Clay with Sand (CL)
Specified Traffic Index: 5.0

Dry Density @ 300 psi Exudation Pressure: 106.1-pcf
%Moisture @ 300 psi Exudation Pressure: 28.3%
R-Value - Exudation Pressure: 2
R-Value - Expansion Pressure: 9
R-Value @ Equilibrium: 2

EXUDATION PRESSURE CHART



EXPANSION PRESSURE CHART



CAPCO
Analytical Services, Inc.

Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Earth Systems Pacific
1731 A Walter Street
Ventura, CA 93003
Attn: Todd Tranby

Report Date: July 25, 2019
Laboratory Number: 191286
Project Name: Somis Ranch
Project No: 302947-001
Sampled by: Stephen DeBolt

Enclosed are the analysis results for samples received July 17, 2019 with the Chain of Custody document. The samples were received in good condition, at 27.9°C, and they were identified and assigned the laboratory ID numbers listed below:

SAMPLE DESCRIPTION	CAS LAB NUMBER ID
B1@0-5′	191286-01
B8@0-5′	191286-02

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Lance Lewy-Laboratory Director

If you have any further questions or concerns, please contact me at your convenience. This report consists of 3 pages excluding the cover letter and the Chain of Custody.

CAPCO
Analytical Services, Inc.

Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Earth Systems Pacific
CAS LAB NO: 191286-01
Sample ID: B1@0-5'
Analyst: GP

Date Sampled: 07/15/19
Date Received: 07/17/19
Sample Matrix: Soil

WET CHEMISTRY SUMMARY

COMPOUND	RESULTS	UNITS	DF	PQL	METHOD	ANALYZED
pH (Corrosivity)	8.3	S.U.	1	---	9045	07/24/19
Resistivity*	1300	Ohms-cm	1	---	SM 120.1M	07/24/19
Chloride	100	mg/Kg	1	0.3	300.0M	07/24/19
Sulfate	710	mg/Kg	2	0.6	300.0M	07/24/19

*Sample was extracted using a 1:3 ratio of soil and DI water.

DF: Dilution Factor
PQL: Practical Quantitation Limit
BQL: Below Quantitation Limit
mg/Kg: Milligrams/Kilograms(ppm)

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CERTIFICATE OF ANALYSIS

Client: Earth Systems Pacific
CAS LAB NO: 191286-02
Sample ID: B8@0-5'
Analyst: GP

Date Sampled: 07/15/19
Date Received: 07/17/19
Sample Matrix: Soil

WET CHEMISTRY SUMMARY

COMPOUND	RESULTS	UNITS	DF	PQL	METHOD	ANALYZED
pH (Corrosivity)	8.4	S.U.	1	---	9045	07/24/19
Resistivity*	1700	Ohms-cm	1	---	SM 120.1M	07/24/19
Chloride	85	mg/Kg	1	0.3	300.0M	07/24/19
Sulfate	510	mg/Kg	1	0.3	300.0M	07/24/19

*Sample was extracted using a 1:3 ratio of soil and DI water.

DF: Dilution Factor
PQL: Practical Quantitation Limit
BQL: Below Quantitation Limit
mg/Kg: Milligrams/Kilograms(ppm)

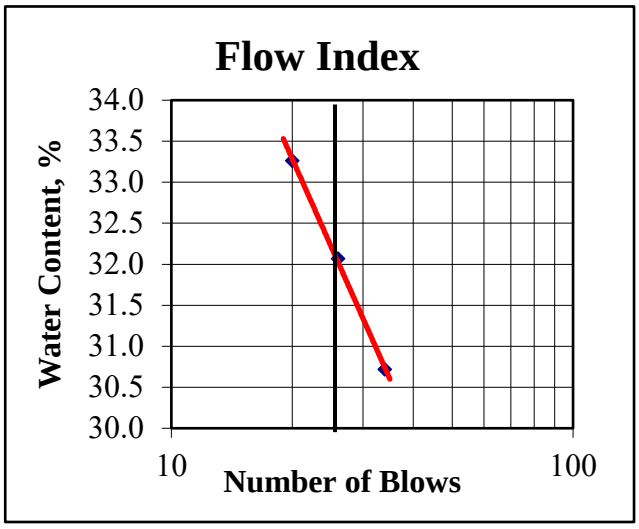
File No.: 302947-001 September 13, 2019

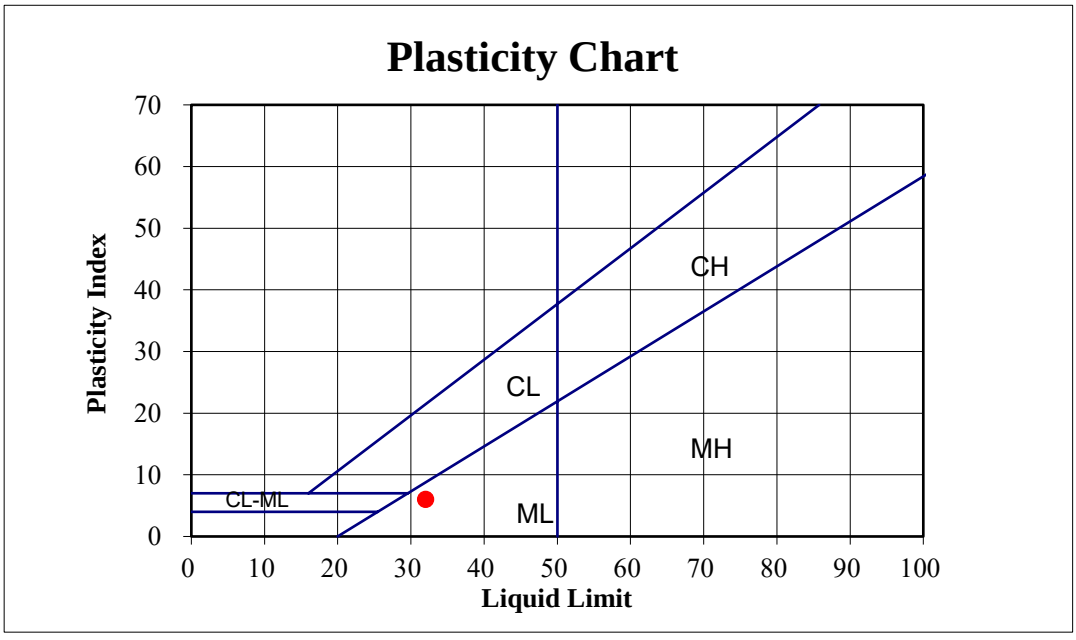
PLASTICITY INDEX

ASTM D-4318

Job Name: Somis Ranch Farmworker Housing
Sample ID: B 1 @ 25'
Soil Description: ML

DATA SUMMARY				TEST RESULTS	
Number of Blows:	20	26	34	**LIQUID LIMIT**	**32**
Water Content, %	33.3	32.1	30.7	**PLASTIC LIMIT**	**26**
Plastic Limit:	26.1	26.0		**PLASTICITY INDEX**	**6**





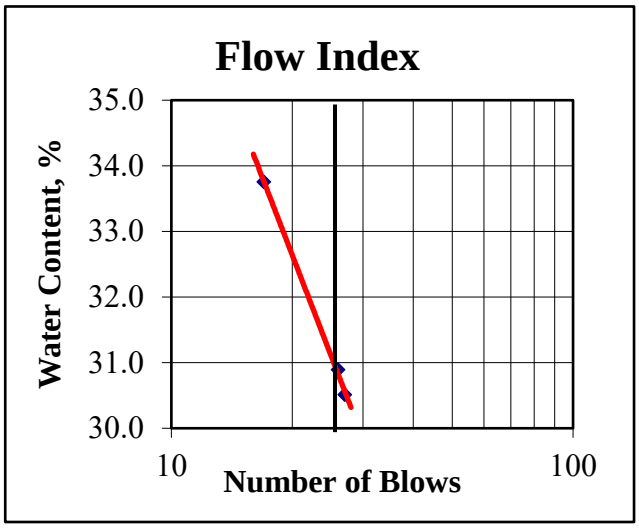
File No.: 302947-001 September 13, 2019

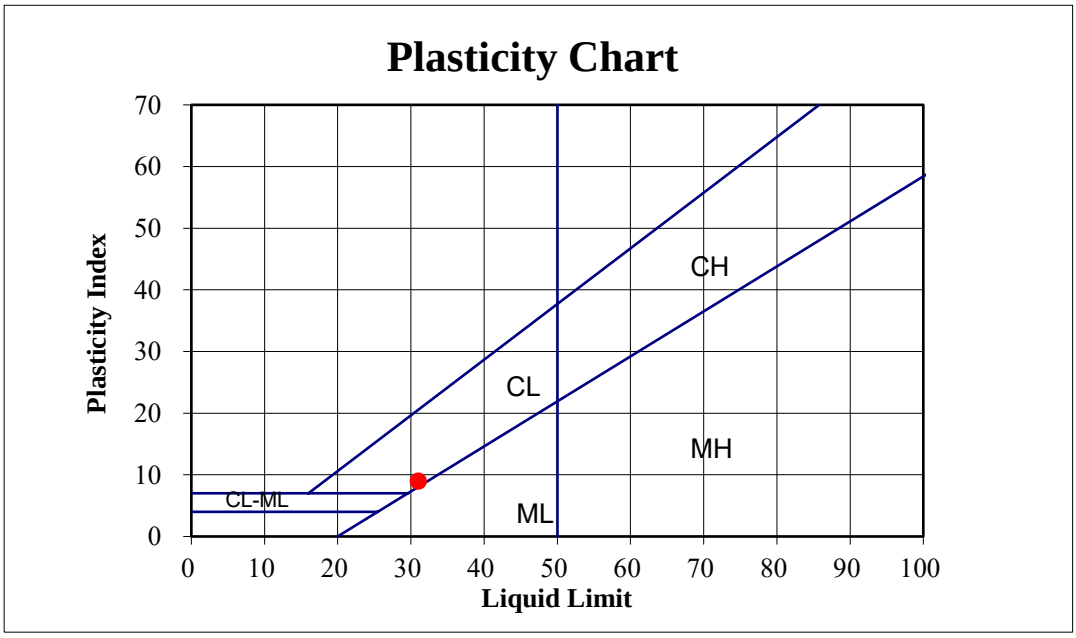
PLASTICITY INDEX

ASTM D-4318

Job Name: Somis Ranch Farmworker Housing
Sample ID: B 1 @ 30'
Soil Description: CL

DATA SUMMARY				TEST RESULTS	
Number of Blows:	17	26	27	**LIQUID LIMIT**	**31**
Water Content, %	33.8	30.9	30.5	**PLASTIC LIMIT**	**22**
Plastic Limit:	22.1	22.2		**PLASTICITY INDEX**	**9**





APPENDIX C

Table 1809.7 Minimum Foundation Design Table

TABLE 1809.7
PRESCRIPTIVE FOOTINGS FOR SUPPORTING WALLS OF LIGHT FRAME CONSTRUCTION*

WEIGHTED EXPANSION INDEX (13)	FOUNDATION FOR SLAB & RAISED FLOOR SYSTEM (4) (8)							CONCRETE SLABS (8) (12)		PREMOISTENING OF SOILS UNDER FOOTINGS, PIERS AND SLABS (4) (5)	RESTRICTION ON PIERS UNDER RAISED FLOORS
	NUMBER OF STORIES	STEM THICKNESS	FOOTING WIDTH	FOOTING THICKNESS	ALL PERIMETER FOOTINGS (5)	INTERIOR FOOTINGS FOR SLAB AND RAISED FLOORS (5)	REINFORCEMENT FOR CONTINUOUS FOUNDATIONS (2) (6)	3-1/2" MINIMUM THICKNESS			
					DEPTH BELOW NATURAL SURFACE OF GROUND AND FINISH GRADE			REINFORCEMENT (3)	TOTAL THICKNESS OF SAND (10)		
		(INCHES)									
0 - 20 Very Low (non-expansive)	1 2 3	6 8 10	12 15 18	6 6 8	12 18 24	12 18 24	1-#4 top and bottom	#4 @ 48" o.c. each way, or #3 @ 36" o.c. each way	2"	Moistening of ground recommended prior to placing concrete	Piers allowed for single floor loads only
21-50 Low	1 2 3	6 8 10	12 15 18	6 6 8	15 18 24	12 18 24	1-#4 top and bottom	#4 @ 48" o.c. each way, or #3 @ 36" o.c. each way	4"	120% of optimum moisture required to a depth of 21" below lowest adjacent grade. Testing required.	Piers allowed for single floor loads only
51-90 Medium	1 2	6 8	12 15	6 6	21 21	12 18	1-#4 top and bottom	#3 @ 24" o.c. each way	4"	130% of optimum moisture required to a depth of 27" below lowest adjacent grade. Testing required	Piers not allowed
	3	10	18	8	24	24	#3 bars @ 24" in ext. footing Bend 3' into slab (7)				
91-130 High	1 2	6 8	12 15	6 6	27 27	12 18	2-#4 Top and Bottom	#3 @ 24" o.c. each way	4"	140% of optimum moisture required to a depth of 33" below lowest adjacent grade. Testing required.	Piers not allowed
	3	10	18	8	27	24	#3 bars @ 24" in ext. footing Bend 3' into slab (7)				
Above 130 Very High	Special design by licensed engineer/architect										

*Refer to next page for footnotes (1) through (14).

FOOTNOTES TO TABLE 1809.7

1. Premoistening is required where specified in Table 1809.7 in order to achieve maximum and uniform expansion of the soil prior to construction and thus limit structural distress caused by uneven expansion and shrinkage. Other systems which do not include premoistening may be approved by the Building Official when such alternatives are shown to provide equivalent safeguards against the adverse effects of expansive soil.

2. Reinforcement for continuous foundations shall be placed not less than 3" above the bottom of the footing and not less than 3" below the top of the stem.

3. Reinforcement shall be placed at mid-depth of slab.

4. After premoistening, the specified moisture content of soils shall be maintained until concrete is placed. Required moisture content shall be verified by an approved testing laboratory not more than 24 hours prior to placement of concrete.

5. Crawl spaces under raised floors need not be pre-moistened except under interior footings. Interior footings which are not enclosed by a continuous perimeter foundation system or equivalent concrete or masonry moisture barrier complying with Footnote # 12 of Table 1809.7 shall be designed and constructed as specified for perimeter footings in Table 1809.7.

6. Foundation stem walls which exceed a height of three times the stem thickness above lowest adjacent grade shall be reinforced in accordance with Chapter 21 and Section 1914 in the IBC, or as required by engineering design, whichever is more restrictive.

7. Bent reinforcing bars between exterior footing and slab shall be omitted when floor is designed as an independent, "floating' slab.

8. Where frost conditions or unusual conditions beyond the scope of this table are found, design shall be in accordance with recommendations of a foundation investigation. Concrete slabs shall have a minimum thickness of 4 inches when the expansion index exceeds 50.

9. The ground under a raised floor system may be excavated to the elevation of the top of the perimeter footing, except where otherwise required by engineering design or to mitigate groundwater conditions.

10. GRADE BEAM, GARAGE OPENING. A grade beam not less than 12" x 12" in cross section, or 12" x depth required by Table 1809.7, whichever is deeper, reinforced as specified for continuous foundations in Table 1809.7, shall be provided at garage door openings..

11. Where a post-tensioning slab system is used, the width and depth of the perimeter footings shall meet the requirements of this table.

12. An approved vapor barrier shall be installed below concrete slab-on-grade floors of all residential occupancies in such a manner as to form an effective barrier against the migration of moisture into the slab. When sheet plastic material is employed for this purpose it shall be not less than 6 mils (.006 inch) in thickness. The installation of a vapor barrier shall not impair the effectiveness of required anchor bolts or other structural parts of a building. Foundations at the perimeter of concrete floor slabs shall form a continuous moisture barrier of Portland cement concrete or solid grouted masonry to the depths required by Table 1809.7.

13. When buildings are located on expansive soil having an expansion index greater than 50, gutters, downspouts, piping, and/or other non-erosive devices shall be provided to collect and conduct rainwater to a street, storm drain, or other approved watercourse or disposal area.

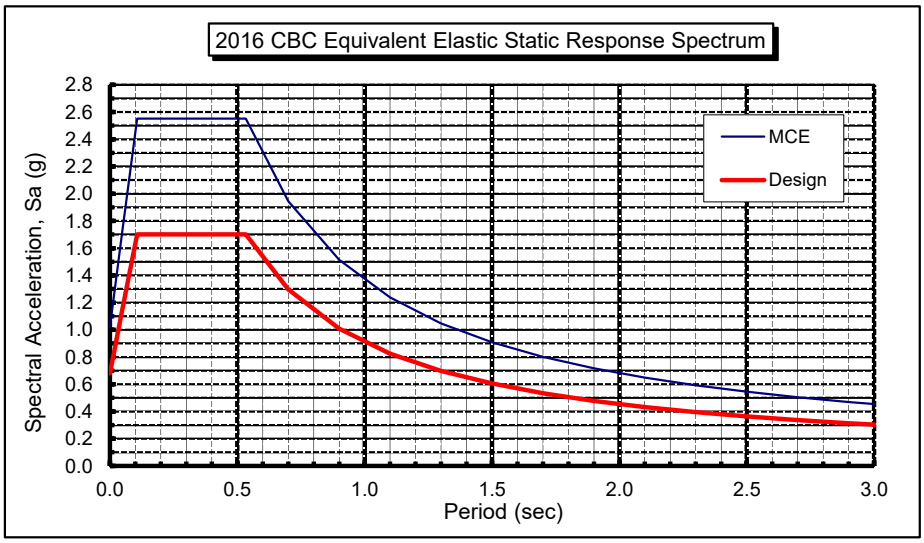
14. Fireplace footings shall be reinforced with a horizontal grid located 3" above the bottom of the footing and consisting of not less than No. 4 Bars at 12" on center each way. Vertical chimney reinforcing bars shall be hooked under the grid. Depth of fireplace chimney footings shall be no less than that required by Table 1809.7.

APPENDIX D

2016 CBC & ASCE 7-10 Seismic Parameters
Fault Parameters
SEAOC/OSHPD Seismic Design Maps

2016 California Building Code (CBC) (ASCE 7-10) Seismic Design Parameters

				CBC Reference	ASCE 7-10 Reference
Seismic Design Category		**E**		Table 1613.5.6	Table 11.6-2
Site Class		**D**		Table 1613.5.2	Table 20.3-1
Latitude:		34.247	N		
Longitude:		-119.011	W		
Maximum Considered Earthquake (MCE) Ground Motion					
Short Period Spectral Reponse	S_S	**2.552**	**g**	Figure 1613.5	Figure 22-3
1 second Spectral Response	S_1	**0.908**	**g**	Figure 1613.5	Figure 22.4
Site Coefficient	F_a	1.00		Table 1613.5.3(1)	Table 11.4-1
Site Coefficient	F_v	1.50		Table 1613.5.3(2)	Table 11-4.2
	S_{MS}	2.552	g	$= F_a*S_S$	
	S_{M1}	1.362	g	$= F_v*S_1$	
Design Earthquake Ground Motion					
Short Period Spectral Reponse	S_{DS}	**1.701**	**g**	$= 2/3*S_{MS}$	
1 second Spectral Response	S_{D1}	**0.908**	**g**	$= 2/3*S_{M1}$	
	To	0.11	sec	$= 0.2*S_{D1}/S_{DS}$	
	Ts	0.53	sec	$= S_{D1}/S_{DS}$	
Seismic Importance Factor	I	1.00		Table 1604.5	Table 11.5-1
	F_{PGA}	1.00			



Period T (sec)	Design Sa (g)
0.00	0.681
0.05	1.159
0.11	1.701
0.53	1.701
0.70	1.297
0.90	1.009
1.10	0.825
1.30	0.698
1.50	0.605
1.70	0.534
1.90	0.478
2.10	0.432
2.30	0.395
2.50	0.363
2.70	0.336
2.90	0.313

Table 1
Fault Parameters

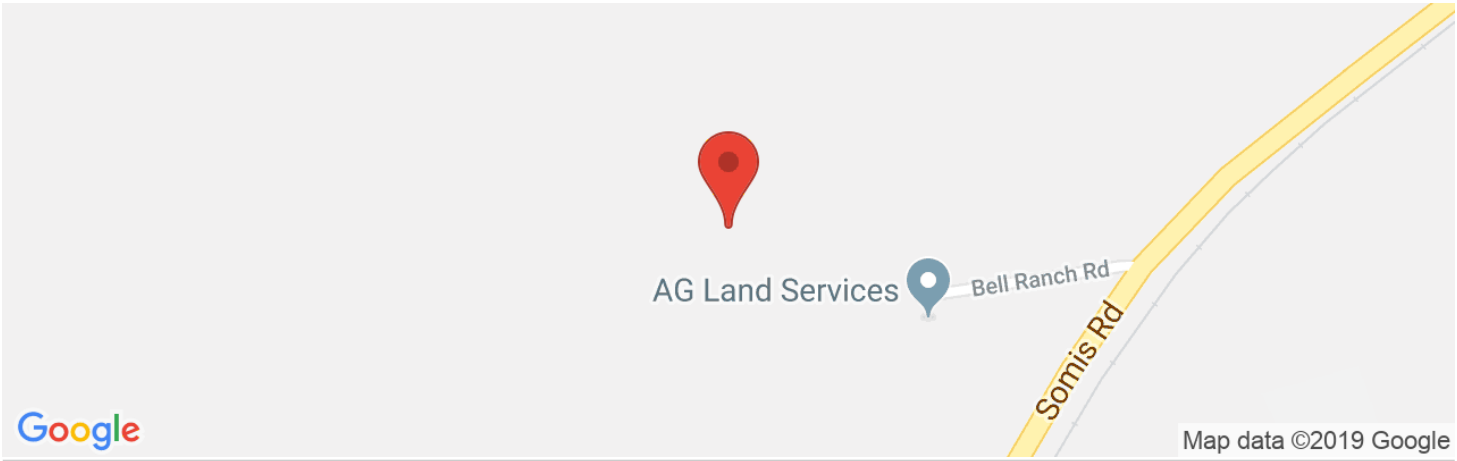
Fault Section Name	Distance (miles)	Distance (km)	Avg Dip Angle (deg.)	Avg Dip Direction (deg.)	Avg Rake (deg.)	Trace Length (km)	Fault Type	**Mean Mag**	Mean Return Interval (years)	Slip Rate (mm/yr)
Simi-Santa Rosa	0.7	1.1	60	346	30	39	B	**6.8**		1
Oak Ridge (Onshore)	6.9	11.1	65	159	90	49	B	**7.2**		4
Ventura-Pitas Point	10.0	16.0	64	353	60	44	B	**6.9**		1
San Cayetano	12.1	19.4	42	3	90	42	B	**7.2**		6
Malibu Coast (Extension), alt 1	13.3	21.4	74	4	30	35	B'	**6.5**		
Malibu Coast (Extension), alt 2	13.3	21.4	74	4	30	35	B'	**6.9**		
Sisar	13.5	21.8	29	168	na	20	B'	**7.0**		
Malibu Coast, alt 1	14.5	23.4	75	3	30	38	B	**6.6**		0.3
Malibu Coast, alt 2	14.5	23.4	74	3	30	38	B	**6.9**		0.3
Oak Ridge (Offshore)	14.9	24.1	32	180	90	38	B	**6.9**		3
Santa Susana, alt 1	15.9	25.7	55	9	90	27	B	**6.8**		5
Santa Susana, alt 2	16.2	26.1	53	10	90	43	B'	**6.8**		
Mission Ridge-Arroyo Parida-Santa Ana	17.7	28.6	70	176	90	69	B	**6.8**		0.4
Northridge Hills	17.8	28.7	31	19	90	25	B'	**7.0**		
Red Mountain	17.9	28.7	56	2	90	101	B	**7.4**		2
Anacapa-Dume, alt 1	19.1	30.8	45	354	60	51	B	**7.2**		3
Anacapa-Dume, alt 2	19.1	30.8	41	352	60	65	B	**7.2**		3
Del Valle	19.4	31.2	73	195	90	9	B'	**6.3**		
Holser, alt 1	19.8	31.8	58	187	90	20	B	**6.7**		0.4
Holser, alt 2	19.8	31.8	58	182	90	17	B'	**6.7**		
Northridge	20.7	33.3	35	201	90	33	B	**6.8**		1.5
Channel Islands Thrust	21.0	33.8	20	354	90	59	B	**7.3**		1.5
Santa Ynez (East)	21.1	34.0	70	172	0	68	B	**7.2**		2
Pine Mtn	22.9	36.9	45	5	na	62	B'	**7.3**		
Santa Cruz Island	23.1	37.2	90	188	30	69	B	**7.1**		1
Shelf (Projection)	23.9	38.5	17	21	na	70	B'	**7.8**		
North Channel	24.1	38.8	26	10	90	51	B	**6.7**		1
San Pedro Basin	24.4	39.3	88	51	na	69	B'	**7.0**		
Channel Islands Western Deep Ramp	25.7	41.4	21	204	90	62	B'	**7.3**		
Santa Monica Bay	26.3	42.4	20	44	na	17	B'	**7.0**		
Pitas Point (Lower)-Montalvo	27.1	43.7	16	359	90	30	B	**7.3**		2.5
Compton	27.8	44.8	20	34	90	65	B'	**7.5**		
San Gabriel	27.9	44.9	61	39	180	71	B	**7.3**		1
Santa Monica, alt 1	30.0	48.3	75	343	30	14	B	**6.5**		1
Santa Monica, alt 2	30.6	49.2	50	338	30	28	B	**6.7**		1
Sierra Madre (San Fernando)	30.7	49.4	45	9	90	18	B	**6.6**		2
San Pedro Escarpment	31.3	50.4	17	38	na	27	B'	**7.3**		
Santa Cruz Catalina Ridge	31.7	51.1	90	38	na	137	B'	**7.3**		
Palos Verdes	32.2	51.9	90	53	180	99	B	**7.3**		3
Big Pine (Central)	32.6	52.5	76	167	na	23	B'	**6.3**		

Reference: USGS OFR 2007-1437 (CGS SP 203) Based on Site Coordinates of 34.2469 Latitude, -119.0112 Longitude

Mean Magnitude for Type A Faults based on 0.1 weight for unsegmented section, 0.9 weight for segmented model (weighted by probability of each scenario with section listed as given on Table 3 of Appendix G in OFR 2007-1437). Mean magntude is average of Ellworths-B and Hanks & Bakun moment area relationship.

Somis Ranch Farmworkers Housing

Latitude, Longitude: 34.2469, -119.0112

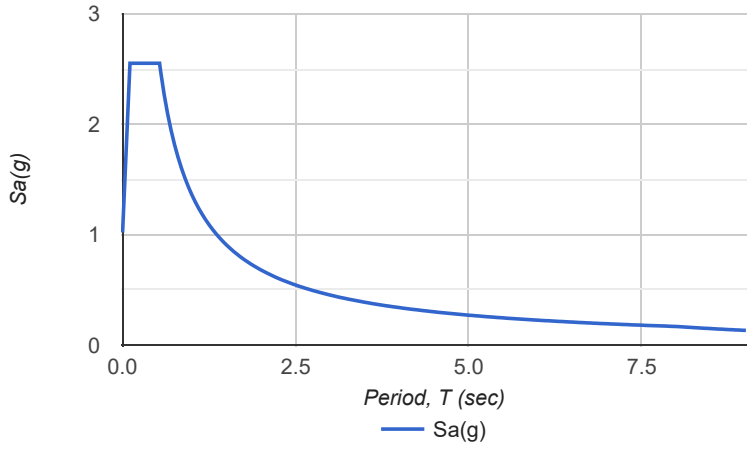


Date	4/25/2019, 5:00:13 PM
Design Code Reference Document	ASCE7-10
Risk Category	II
Site Class	D - Stiff Soil

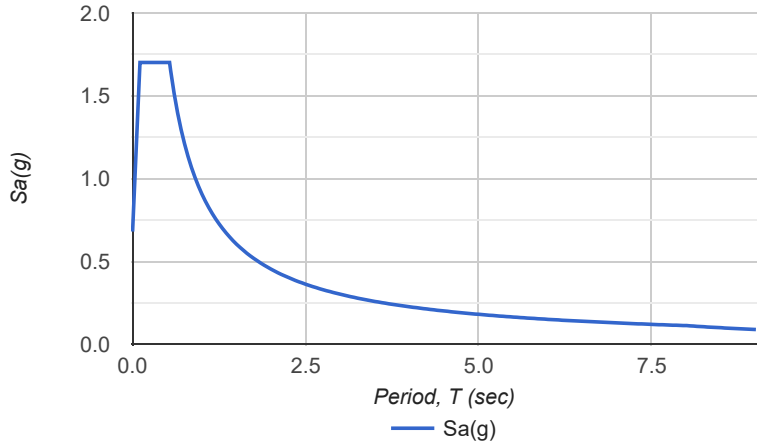
Type	Value	Description
S_S	2.552	MCE_R ground motion. (for 0.2 second period)
S_1	0.908	MCE_R ground motion. (for 1.0s period)
S_{MS}	2.552	Site-modified spectral acceleration value
S_{M1}	1.362	Site-modified spectral acceleration value
S_{DS}	1.701	Numeric seismic design value at 0.2 second SA
S_{D1}	0.908	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	E	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	1.5	Site amplification factor at 1.0 second
PGA	0.981	MCE_G peak ground acceleration
F_{PGA}	1	Site amplification factor at PGA
PGA_M	0.981	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	2.552	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	2.757	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2.821	Factored deterministic acceleration value. (0.2 second)
S1RT	0.908	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.98	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	1.074	Factored deterministic acceleration value. (1.0 second)
PGAd	1.101	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.925	Mapped value of the risk coefficient at short periods
C_{R1}	0.927	Mapped value of the risk coefficient at a period of 1 s

MCER Response Spectrum



Design Response Spectrum



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APPENDIX E

CPT-Based Dry Sand Seismic Settlement Analyses

CPT-LIQUEFY.XLS - A SPREADSHEET FOR EMPIRICAL ESTIMATION OF LIQUEFACTION POTENTIAL USING CPT DATA

Developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Project: Somis Ranch Farmworker Housing

Job No: 302947-001

Date: 9/4/2019

Sounding: CPT-1

Plot: 1

Liquefaction Analysis using 1998 NCEER (Robertson & Wride) method

Settlement Analysis using Tokimatsu & Seed (1987), clean sand Qc1n/N1(60) ratio =5

Total Liquefied Thickness (feet)
0.0
Total Induced Subsidence (inches)
0.2

EARTHQUAKE INFORMATION:

Magnitude: 7.2 (7.5)

PGA, g: 0.98 (0.88)

MSF: 1.11

GWT, feet: 50.0

Calc GWT, feet: 50.0

Method Used: 1 — 1998 NCEER (Robertson & Wride)

Averaging Increment: 3 — 0.15 m

Induced CSR (M=7.5) = 0.65*PGA*(po/p'o)*rd/MSF

Clean Sand Qc1n = C_Q*K_C*K_H*Qc

SF = $CRR_{7.5}$*Kσ/CSR

Ignore 1st/last increment into sand/silt soils: 1 yes

Ignore/remediate upper: 1.0 m

Unit Weight of unsaturated soils: 115 pcf

Unit Weight of saturated soils: 130 pcf

Limiting Ic for liquefiable soils: 2.60 — Limiting Ic for K_H: 2.6

Use Moss @ P_L: 15%

Use Tokimatsu & Seed (0) or Ishihara &Yoshmine (1): 0

Required SF: 1.50 — Max $\Delta N_{1(60)}$ - post liquefied: 5.5

Min SF of Liquefiable Layers: 0.00 — Max $\Delta N_{1(60)}$ - non liquefied: 5.0

Avg SF of Liquefiable Layers: #DIV/0!

Depth (feet)	(m)	Tip Qc (tsf)	Friction Fs (tsf)	Friction Ratio Rf %	qc MPa	Total Unit Wt. (pcf)	Total Stress po (tsf)	Eff. Stress p'o (tsf)	rd	F %	n	Max 1.70 Cq	Q	Moss qc1 MPa	Moss Δqc MPa	Moss qc_{1mod} MPa	Moss eff K_C	Qc1n	Ic	Override	Liquef. Suscept. (0 or 1)	Rel. Dens. Dr (%)	K_C	K_H	Clean Sand Qc1n	1.0 Kσ	CRR	Induced M=7.5 CSR	**Liquefac. Safety Factor**	Qc1n $N_{1(60)}$ Ratio	Equiv. $N_{1(60)}$	FC Adj. $\Delta N_{1(60)}$	Equiv. $N_{1(60)cs}$	***Volumetric Strain (%)***
0.49	0.15	7.35	0.34	4.66	0.70	115	0.028	0.028	1.000	4.67	0.92	1.70	11.76	1.20	4.55	5.75		11.80	3.05		0			1.00	1.00		0.383	**Non-Liq.**	3.0	3.9			**0.00**
0.98	0.30	8.76	0.23	2.67	0.84	115	0.057	0.057	1.000	2.69	0.86	1.70	13.98	1.43	2.37	3.80		14.07	2.85		0			1.00	1.00		0.383	**Non-Liq.**	3.4	4.1			**0.00**
1.48	0.45	10.35	0.49	4.74	0.99	115	0.085	0.085	0.999	4.78	0.89	1.70	16.50	1.69	4.64	6.33		16.64	2.95		0			1.00	1.00		0.382	**Non-Liq.**	3.2	5.1			**0.00**
1.97	0.60	9.08	0.54	5.90	0.87	115	0.113	0.113	0.997	5.98	0.92	1.70	14.41	1.48	4.92	6.40		14.60	3.05		0			1.00	1.00		0.382	**Non-Liq.**	3.0	4.8			**0.00**
2.46	0.75	8.77	0.55	6.25	0.84	115	0.141	0.141	0.996	6.35	0.93	1.70	13.86	1.43	4.92	6.35		14.09	3.08		0			1.00	1.00		0.382	**Non-Liq.**	3.0	4.8			**0.00**
2.95	0.90	9.77	0.58	5.91	0.94	115	0.170	0.170	0.995	6.02	0.92	1.70	15.43	1.59	4.92	6.51		15.70	3.03		0			1.00	1.00		0.381	**Non-Liq.**	3.1	5.1			**0.00**
3.44	1.05	9.05	0.57	6.32	0.87	115	0.198	0.198	0.994	6.46	0.93	1.70	14.22	1.47	4.92	6.39		14.54	3.08		0			1.00	1.00		0.381	**Non-Liq.**	3.0	4.9			**0.00**
3.94	1.20	9.58	0.59	6.17	0.92	115	0.226	0.226	0.993	6.32	0.92	1.70	15.02	1.56	4.92	6.48		15.39	3.06		0			1.00	1.00		0.380	**Non-Liq.**	3.0	5.1			**0.00**
4.43	1.35	10.60	0.64	6.03	1.01	115	0.255	0.255	0.992	6.18	0.91	1.70	16.62	1.73	4.91	6.64		17.03	3.02		0			1.00	1.00		0.380	**Non-Liq.**	3.1	5.5			**0.00**
4.92	1.50	11.59	0.65	5.58	1.11	115	0.283	0.283	0.990	5.72	0.90	1.70	18.17	1.89	4.91	6.80		18.63	2.97		0			1.00	1.00		0.379	**Non-Liq.**	3.2	5.8			**0.00**
5.41	1.65	9.23	0.52	5.68	0.88	115	0.311	0.311	0.989	5.88	0.92	1.70	14.33	1.50	4.91	6.41		14.83	3.05		0			1.00	1.00		0.379	**Non-Liq.**	3.0	4.9			**0.00**
5.91	1.80	8.52	0.50	5.93	0.82	115	0.340	0.340	0.988	6.17	0.94	1.70	13.14	1.39	4.91	6.30		13.68	3.09		0			1.00	1.00		0.379	**Non-Liq.**	2.9	4.6			**0.00**
6.40	1.95	10.17	0.62	6.06	0.97	115	0.368	0.368	0.987	6.29	0.92	1.70	15.75	1.66	4.91	6.56		16.34	3.04		0			1.00	1.00		0.378	**Non-Liq.**	3.1	5.4			**0.00**
6.89	2.10	9.96	0.63	6.29	0.95	115	0.396	0.396	0.986	6.55	0.93	1.70	15.36	1.62	4.90	6.53		16.00	3.06		0			1.00	1.00		0.378	**Non-Liq.**	3.0	5.3			**0.00**
7.38	2.25	10.46	0.63	6.04	1.00	115	0.424	0.424	0.985	6.30	0.92	1.70	16.13	1.70	4.90	6.60		16.81	3.03		0			1.00	1.00		0.377	**Non-Liq.**	3.1	5.5			**0.00**
7.87	2.40	9.76	0.59	6.03	0.93	115	0.453	0.453	0.984	6.32	0.94	1.70	14.95	1.56	4.90	6.46		15.68	3.06		0			1.00	1.00		0.377	**Non-Liq.**	3.0	5.2			**0.00**
8.37	2.55	9.23	0.52	5.65	0.88	115	0.481	0.481	0.983	5.96	0.94	1.70	14.06	1.45	4.90	6.35		14.84	3.06		0			1.00	1.00		0.376	**Non-Liq.**	3.0	4.9			**0.00**
8.86	2.70	8.90	0.50	5.57	0.85	115	0.509	0.509	0.982	5.91	0.95	1.70	13.48	1.36	4.90	6.26		14.30	3.07		0			1.00	1.00		0.376	**Non-Liq.**	3.0	4.8			**0.00**
9.35	2.85	9.29	0.48	5.14	0.89	115	0.538	0.538	0.981	5.46	0.94	1.70	14.06	1.36	4.90	6.26		14.92	3.04		0			1.00	1.00		0.376	**Non-Liq.**	3.1	4.9			**0.00**
9.84	3.00	8.02	0.45	5.58	0.77	115	0.566	0.566	0.979	6.00	0.96	1.70	11.98	1.17	4.89	6.06		12.89	3.12		0			1.00	1.00		0.375	**Non-Liq.**	2.9	4.4			**0.00**
10.33	3.15	6.64	0.38	5.67	0.64	115	0.594	0.594	0.978	6.23	0.99	1.70	9.71	0.98	4.89	5.87		10.66	3.20		0			1.00	1.00		0.375	**Non-Liq.**	2.7	3.9			**0.00**
10.83	3.30	5.44	0.34	6.16	0.52	115	0.623	0.623	0.977	6.95	1.00	1.70	7.74	0.81	4.89	5.70		8.74	3.30		0			1.00	1.00		0.374	**Non-Liq.**	2.5	3.4			**0.00**
11.32	3.45	6.05	0.36	5.88	0.58	115	0.651	0.651	0.976	6.59	1.00	1.63	8.30	0.85	4.89	5.74		9.30	3.27		0			1.00	1.00		0.374	**Non-Liq.**	2.6	3.6			**0.00**
11.81	3.60	6.85	0.37	5.45	0.66	115	0.679	0.679	0.975	6.06	0.99	1.55	9.06	0.91	4.89	5.80		10.06	3.21		0			1.00	1.00		0.374	**Non-Liq.**	2.7	3.7			**0.00**
12.30	3.75	7.63	0.40	5.25	0.73	115	0.707	0.707	0.974	5.79	0.98	1.48	9.71	0.97	4.88	5.85		10.70	3.18		0			1.00	1.00		0.373	**Non-Liq.**	2.8	3.8			**0.00**
12.80	3.90	8.01	0.44	5.53	0.77	115	0.736	0.736	0.973	6.09	0.98	1.43	9.82	0.98	4.88	5.86		10.81	3.19		0			1.00	1.00		0.373	**Non-Liq.**	2.8	3.9			**0.00**
13.29	4.05	7.52	0.53	7.02	0.72	115	0.764	0.764	0.972	7.81	1.00	1.38	8.84	0.90	4.88	5.78		9.84	3.29		0			1.00	1.00		0.372	**Non-Liq.**	2.6	3.8			**0.00**
13.78	4.20	11.96	0.71	5.91	1.15	115	0.792	0.792	0.971	6.33	0.95	1.31	13.88	1.34	4.88	6.22		14.86	3.08		0			1.00	1.00		0.372	**Non-Liq.**	3.0	5.0			**0.00**
14.27	4.35	8.57	0.68	7.92	0.82	115	0.821	0.821	0.970	8.76	1.00	1.29	9.45	0.96	4.88	5.84		10.45	3.30		0			1.00	1.00		0.372	**Non-Liq.**	2.5	4.1			**0.00**
14.76	4.50	9.93	0.58	5.84	0.95	115	0.849	0.849	0.969	6.39	0.97	1.24	10.63	1.08	4.88	5.96		11.62	3.17		0			1.00	1.00		0.371	**Non-Liq.**	2.8	4.2			**0.00**
15.26	4.65	9.68	0.60	6.24	0.93	115	0.877	0.877	0.968	6.86	0.98	1.20	10.00	1.04	4.87	5.91		11.00	3.21		0			1.00	1.00		0.371	**Non-Liq.**	2.7	4.1			**0.00**
15.75	4.80	9.85	0.60	6.11	0.94	115	0.906	0.906	0.967	6.73	0.98	1.16	9.84	1.03	4.87	5.91		10.84	3.21		0			1.00	1.00		0.370	**Non-Liq.**	2.7	4.0			**0.00**
16.24	4.95	9.88	0.62	6.24	0.95	115	0.934	0.934	0.966	6.89	0.98	1.13	9.56	1.02	4.87	5.89		10.56	3.23		0			1.00	1.00		0.370	**Non-Liq.**	2.7	3.9			**0.00**
16.73	5.10	9.65	0.59	6.07	0.92	115	0.962	0.962	0.965	6.75	0.99	1.10	9.01	0.98	4.87	5.85		10.01	3.24		0			1.00	1.00		0.370	**Non-Liq.**	2.7	3.8			**0.00**
17.22	5.25	10.04	0.58	5.78	0.96	115	0.990	0.990	0.964	6.41	0.98	1.07	9.13	1.00	4.87	5.87		10.13	3.23		0			1.00	1.00		0.369	**Non-Liq.**	2.7	3.8			**0.00**
17.72	5.40	9.96	0.63	6.35	0.95	115	1.019	1.019	0.962	7.08	0.99	1.04	8.78	0.98	4.86	5.84		9.78	3.27		0			1.00	1.00		0.369	**Non-Liq.**	2.6	3.7			**0.00**
18.21	5.55	11.70	0.72	6.12	1.12	115	1.047	1.047	0.961	6.73	0.97	1.01	10.17	1.13	4.86	5.99		11.17	3.20		0			1.00	1.00		0.368	**Non-Liq.**	2.7	4.1			**0.00**
18.70	5.70	12.00	0.78	6.50	1.15	115	1.075	1.075	0.960	7.14	0.97	0.98	10.16	1.14	4.86	6.00		11.16	3.22		0			1.00	1.00		0.368	**Non-Liq.**	2.7	4.1			**0.00**
19.19	5.85	14.02	0.81	5.80	1.34	115	1.104	1.104	0.959	6.29	0.95	0.96	11.73	1.31	4.86	6.17		12.73	3.14		0			1.00	0.99		0.367	**Non-Liq.**	2.9	4.5			**0.00**
19.69	6.00	17.77	0.84	4.71	1.70	115	1.132	1.132	0.958	5.03	0.90	0.94	14.79	1.65	4.54	6.19		15.80	3.00		0			1.00	0.99		0.367	**Non-Liq.**	3.1	5.0			**0.00**
20.18	6.15	25.68	0.67	2.60	2.46	115	1.160	1.160	0.956	2.72	0.82	0.93	21.49	2.36	2.27	4.62		22.51	2.70		0			1.00	0.98		0.366	**Non-Liq.**	3.7	6.1			**0.00**
20.67	6.30	33.39	0.47	1.40	3.20	115	1.188	1.188	0.955	1.45	0.74	0.92	27.93	4.24	0.97	5.21		40.74	2.45		0			1.41	0.98		0.366	**Non-Liq.**	4.2	9.7			**0.00**
21.16	6.45	32.81	0.45	1.38	3.14	115	1.217	1.217	0.954	1.44	0.74	0.90	26.92	4.12	0.95	5.07		39.32	2.46		0			1.41	0.97		0.365	**Non-Liq.**	4.2	9.4			**0.00**
21.65	6.60	27.28	0.54	1.99	2.61	115	1.245	1.245	0.952	2.09	0.79	0.88	21.63	2.41	1.61	4.02		22.66	2.63		0			1.00	0.97		0.365	**Non-Liq.**	3.8	5.9			**0.00**
22.15	6.75	17.39	0.77	4.42	1.67	115	1.273	1.273	0.951	4.77	0.91	0.84	12.87	1.52	4.22	5.75		13.89	3.03		0			1.00	0.96		0.364	**Non-Liq.**	3.1	4.5			**0.00**
22.64	6.90	16.50	0.89	5.37	1.58	115	1.302	1.302	0.950	5.83	0.93	0.82	11.84	1.43	4.84	6.27		12.85	3.11		0			1.00	0.96		0.364	**Non-Liq.**	2.9	4.4			**0.00**
23.13	7.05	16.36	0.85	5.18	1.57	115	1.330	1.330	0.948	5.63	0.93	0.81	11.48	1.40	4.84	6.24		12.49	3.11		0			1.00	0.96		0.363	**Non-Liq.**	2.9	4.3			**0.00**

Depth		Tip Qc	Friction Fs	Friction Ratio	qc	Total Unit Wt.	Total Stress	Eff. Stress				Max 1.70		Moss qc1	Moss Δqc	Moss qc_{1mod}	Moss eff			Overide	Liquef. Suscept.	Rel. Dens.			Clean Sand	1.0		Induced M=7.5	Liquefac. Safety	Qc1n $N_{1(60)}$	Equiv.	FC Adj.	Equiv.	Volumetric Strain
(feet)	(m)	(tsf)	(tsf)	Rf %	MPa	(pcf)	po (tsf)	p'o (tsf)	rd	%	n	Cq	Q	MPa	MPa	MPa	K_C	Qc1n	Ic		(0 or 1)	Dr (%)	K_C	K_H	Qc1n	Kσ	CRR	CSR	Factor	Ratio	$N_{1(60)}$	$ΔN_{1(60)}$	$N_{1(60)cs}$	(%)
23.62	7.20	32.89	0.78	2.37	3.15	115	1.358	1.358	0.946	2.48	0.79	0.82	24.46	2.82	2.01	4.84		25.52	2.63		0			1.00		0.95		0.363	**Non-Liq.**	3.8	6.6			**0.00**
24.11	7.35	37.36	0.69	1.84	3.58	115	1.387	1.387	0.945	1.91	0.76	0.81	27.70	5.00	1.43	6.44		45.45	2.52		0			1.58		0.95		0.362	**Non-Liq.**	4.1	11.2			**0.00**
24.61	7.50	16.51	0.66	3.97	1.58	115	1.415	1.415	0.943	4.35	0.91	0.77	10.94	1.36	3.73	5.09		11.96	3.06		0			1.00		0.94		0.361	**Non-Liq.**	3.0	4.0			**0.00**
25.10	7.65	17.93	0.69	3.83	1.72	115	1.443	1.443	0.941	4.17	0.90	0.76	11.78	1.47	3.57	5.05		12.81	3.02		0			1.00		0.94		0.361	**Non-Liq.**	3.1	4.2			**0.00**
25.59	7.80	23.71	0.80	3.36	2.27	115	1.471	1.471	0.940	3.58	0.86	0.75	15.83	1.96	3.06	5.02		16.88	2.88		0			1.00		0.94		0.360	**Non-Liq.**	3.4	5.0			**0.00**
26.08	7.95	24.10	0.81	3.35	2.31	115	1.500	1.500	0.938	3.57	0.86	0.74	15.83	1.97	3.05	5.02		16.88	2.88		0			1.00		0.93		0.359	**Non-Liq.**	3.4	5.0			**0.00**
26.57	8.10	24.29	0.71	2.93	2.33	115	1.528	1.528	0.936	3.13	0.85	0.73	15.74	1.96	2.60	4.57		16.80	2.85		0			1.00		0.93		0.359	**Non-Liq.**	3.4	4.9			**0.00**
27.07	8.25	28.19	0.70	2.48	2.70	115	1.556	1.556	0.934	2.62	0.82	0.73	18.34	2.26	2.12	4.38		19.42	2.75		0			1.00		0.93		0.358	**Non-Liq.**	3.6	5.4			**0.00**
27.56	8.40	45.66	0.69	1.51	4.37	115	1.585	1.585	0.932	1.56	0.73	0.75	31.05	4.61	1.08	5.69		40.67	2.43		0			1.26		0.92		0.357	**Non-Liq.**	4.2	9.6			**0.00**
28.05	8.55	64.03	0.73	1.14	6.13	115	1.613	1.613	0.930	1.17	0.67	0.75	44.48	6.43	0.68	7.12	1.11	57.69	2.23		1	54	1.75	1.26	100.8	0.88	0.175	0.356	**Non-Liq.**	4.6	12.5	5.0	17.5	**0.51**
28.54	8.70	53.09	0.84	1.58	5.08	115	1.641	1.641	0.928	1.63	0.72	0.73	35.51	5.34	1.15	6.49		46.33	2.39		0			1.26		0.92		0.355	**Non-Liq.**	4.3	10.7			**0.00**
29.04	8.85	29.01	0.88	3.04	2.78	115	1.670	1.670	0.925	3.23	0.84	0.68	17.64	2.29	2.71	4.99		18.71	2.82		0			1.00		0.91		0.354	**Non-Liq.**	3.5	5.4			**0.00**
29.53	9.00	28.90	0.91	3.17	2.77	115	1.698	1.698	0.923	3.36	0.84	0.67	17.26	2.26	2.84	5.10		18.34	2.83		0			1.00		0.91		0.354	**Non-Liq.**	3.5	5.3			**0.00**
30.02	9.15	42.51	0.91	2.13	4.07	115	1.726	1.726	0.920	2.22	0.77	0.69	26.47	4.68	1.73	6.41		38.81	2.58		0			1.41		0.91		0.353	**Non-Liq.**	4.0	9.8			**0.00**
30.51	9.30	43.43	0.91	2.10	4.16	115	1.754	1.754	0.918	2.19	0.77	0.68	26.75	4.75	1.70	6.45		39.21	2.57		0			1.41		0.90		0.352	**Non-Liq.**	4.0	9.9			**0.00**
31.00	9.45	37.40	0.86	2.30	3.58	115	1.783	1.783	0.915	2.41	0.79	0.66	22.29	2.87	1.91	4.78		23.41	2.66		0			1.00		0.90		0.351	**Non-Liq.**	3.8	6.2			**0.00**
31.50	9.60	29.98	0.74	2.47	2.87	115	1.811	1.811	0.913	2.63	0.82	0.64	17.12	2.26	2.09	4.35		18.22	2.77		0			1.00		0.90		0.350	**Non-Liq.**	3.6	5.1			**0.00**
31.99	9.75	21.44	0.71	3.30	2.05	115	1.839	1.839	0.910	3.61	0.89	0.61	11.36	1.58	2.97	4.55		12.42	3.00		0			1.00		0.90		0.349	**Non-Liq.**	3.1	4.0			**0.00**
32.48	9.90	13.60	0.60	4.44	1.30	115	1.868	1.868	0.907	5.15	0.97	0.58	6.40	0.96	4.17	5.13		7.42	3.29		0			1.00		0.89		0.347	**Non-Liq.**	2.6	2.9			**0.00**
32.97	10.05	14.56	0.52	3.57	1.39	115	1.896	1.896	0.904	4.11	0.94	0.58	6.91	1.01	3.25	4.26		7.94	3.21		0			1.00		0.89		0.346	**Non-Liq.**	2.7	2.9			**0.00**
33.46	10.20	14.55	0.56	3.87	1.39	115	1.924	1.924	0.901	4.46	0.95	0.57	6.76	1.01	3.55	4.56		7.79	3.23		0			1.00		0.89		0.345	**Non-Liq.**	2.7	2.9			**0.00**
33.96	10.35	27.90	0.63	2.26	2.67	115	1.953	1.953	0.898	2.43	0.83	0.60	14.76	2.00	1.86	3.86		15.87	2.81		0			1.00		0.88		0.344	**Non-Liq.**	3.5	4.5			**0.00**
34.45	10.50	23.34	0.73	3.13	2.24	115	1.981	1.981	0.894	3.42	0.88	0.58	11.66	1.67	2.77	4.44		12.74	2.98		0			1.00		0.88		0.343	**Non-Liq.**	3.2	4.0			**0.00**
34.94	10.65	46.54	0.67	1.44	4.46	115	2.009	2.009	0.891	1.50	0.74	0.62	26.25	4.22	0.99	5.21		34.69	2.48		0			1.26		0.88		0.341	**Non-Liq.**	4.1	8.4			**0.00**
35.43	10.80	71.70	0.63	0.88	6.87	115	2.037	2.037	0.888	0.91	0.65	0.65	42.96	6.39	0.40	6.79	1.06	55.91	2.18		1	53	1.62	1.26	90.7	0.82	0.149	0.340	**Non-Liq.**	4.7	11.8	5.0	16.8	**0.52**
35.93	10.95	65.06	0.95	1.45	6.23	115	2.066	2.066	0.884	1.50	0.70	0.63	37.25	6.00	1.00	7.00		48.64	2.36		0			1.26		0.87		0.339	**Non-Liq.**	4.4	11.1			**0.00**
36.42	11.10	46.94	1.12	2.39	4.50	115	2.094	2.094	0.880	2.50	0.78	0.59	24.93	3.45	1.98	5.44		26.09	2.63		0			1.00		0.87		0.337	**Non-Liq.**	3.9	6.8			**0.00**
36.91	11.25	30.95	0.93	3.00	2.96	115	2.122	2.122	0.877	3.22	0.84	0.56	15.14	2.21	2.61	4.83		16.26	2.87		0			1.00		0.87		0.336	**Non-Liq.**	3.4	4.8			**0.00**
37.40	11.40	35.72	0.84	2.34	3.42	115	2.151	2.151	0.873	2.49	0.81	0.56	17.88	2.53	1.92	4.45		19.03	2.74		0			1.00		0.87		0.334	**Non-Liq.**	3.6	5.2			**0.00**
37.89	11.55	42.06	0.97	2.30	4.03	115	2.179	2.179	0.869	2.43	0.79	0.57	21.31	3.01	1.88	4.89		22.48	2.68		0			1.00		0.87		0.333	**Non-Liq.**	3.8	6.0			**0.00**
38.39	11.70	25.17	1.08	4.29	2.41	115	2.207	2.207	0.865	4.70	0.90	0.52	11.20	1.78	3.94	5.72		12.27	3.07		0			1.00		0.86		0.331	**Non-Liq.**	3.0	4.1			**0.00**
38.88	11.85	185.77	1.23	0.66	17.79	115	2.235	2.235	0.861	0.67	0.53	0.67	116.62	13.09	0.17	13.26		118.48	1.75		0			1.00		0.86		0.330	**Non-Liq.**	5.6	21.3			**0.00**
39.37	12.00	261.43	1.57	0.60	25.03	115	2.264	2.264	0.857	0.61	0.50	0.68	167.47	18.44	0.10	18.54	1.01	168.93	1.60		1	99	1.00	1.00	168.9	0.74	Infin.	0.328	**Non-Liq.**	5.9	28.8	5.0	33.8	**0.11**
39.86	12.15	313.97	2.00	0.64	30.07	115	2.292	2.292	0.852	0.64	0.50	0.68	200.15	22.43	0.14	22.57	1.01	201.62	1.56		1	100	1.00	1.00	201.6	0.73	Infin.	0.326	**Non-Liq.**	6.0	33.9	5.0	38.9	**0.08**
40.35	12.30	318.18	2.24	0.71	30.47	115	2.320	2.320	0.848	0.71	0.50	0.68	201.59	22.91	0.21	23.12	1.01	203.07	1.58		1	100	1.00	1.00	203.1	0.73	Infin.	0.325	**Non-Liq.**	5.9	34.4	5.0	39.4	**0.08**
40.85	12.45	295.72	2.04	0.69	28.32	115	2.349	2.349	0.843	0.70	0.50	0.67	186.11	21.05	0.20	21.25	1.01	187.60	1.60		1	100	1.00	1.00	187.6	0.73	Infin.	0.323	**Non-Liq.**	5.9	32.0	5.0	37.0	**0.09**
41.34	12.60	218.61	1.74	0.79	20.93	115	2.377	2.377	0.839	0.80	0.53	0.65	132.89	15.46	0.30	15.76	1.02	134.35	1.75		1	89	1.07	1.00	144.4	0.72	0.360	0.321	**Non-Liq.**	5.6	24.2	4.7	28.9	**0.15**
41.83	12.75	204.50	1.70	0.83	19.58	115	2.405	2.405	0.834	0.84	0.54	0.64	122.28	14.41	0.34	14.75	1.02	123.73	1.80		1	86	1.10	1.00	136.5	0.72	0.317	0.320	**Non-Liq.**	5.5	22.6	4.7	27.3	**0.16**
42.32	12.90	276.11	1.84	0.67	26.44	115	2.434	2.434	0.830	0.67	0.50	0.66	170.56	19.23	0.17	19.40	1.01	172.08	1.62		1	99	1.00	1.00	172.1	0.72	Infin.	0.318	**Non-Liq.**	5.8	29.5	4.9	34.4	**0.10**
42.81	13.05	337.04	2.24	0.66	32.28	115	2.462	2.462	0.825	0.67	0.50	0.66	207.31	23.66	0.17	23.83	1.01	208.84	1.56		1	100	1.00	1.00	208.8	0.71	Infin.	0.316	**Non-Liq.**	5.9	35.1	5.0	40.1	**0.07**
43.31	13.20	354.88	2.76	0.78	33.98	115	2.490	2.490	0.820	0.78	0.50	0.65	217.11	25.36	0.28	25.64	1.01	218.64	1.59		1	100	1.00	1.00	218.6	0.71	Infin.	0.314	**Non-Liq.**	5.9	37.1	5.0	42.1	**0.07**
43.80	13.35	384.72	3.29	0.85	36.84	115	2.518	2.518	0.816	0.86	0.50	0.65	234.15	27.82	0.36	28.18	1.01	235.69	1.59		1	100	1.00	1.00	235.7	0.71	Infin.	0.312	**Non-Liq.**	5.9	40.1	5.0	45.1	**0.06**
44.29	13.50	404.66	3.64	0.90	38.75	115	2.547	2.547	0.811	0.91	0.50	0.64	244.97	29.41	0.41	29.82	1.01	246.52	1.60		1	100	1.00	1.00	246.5	0.70	Infin.	0.311	**Non-Liq.**	5.9	42.0	5.0	47.0	**0.05**
44.78	13.65	435.52	3.79	0.87	41.71	115	2.575	2.575	0.806	0.87	0.50	0.64	262.30	31.56	0.37	31.94	1.01	263.86	1.57		1	100	1.00	1.00	263.9	0.70	Infin.	0.309	**Non-Liq.**	5.9	44.5	5.0	49.5	**0.05**
45.28	13.80	522.60	4.21	0.81	50.04	115	2.603	2.603	0.801	0.81	0.50	0.64	313.32	37.81	0.31	38.12	1.01	314.89	1.49		1	100	1.00	1.00	314.9	0.70	Infin.	0.307	**Non-Liq.**	6.1	51.8	5.0	56.8	**0.04**
45.77	13.95	438.57	3.80	0.87	42.00	115	2.632	2.632	0.796	0.87	0.50	0.63	261.26	31.57	0.37	31.94	1.01	262.84	1.57		1	100	1.00	1.00	262.8	0.69	Infin.	0.305	**Non-Liq.**	5.9	44.3	5.0	49.3	**0.05**
46.26	14.10	270.12	2.47	0.91	25.87	115	2.660	2.660	0.791	0.92	0.53	0.61	155.28	18.91	0.42	19.33	1.02	156.83	1.74		1	95	1.07	1.00	167.4	0.69	Infin.	0.303	**Non-Liq.**	5.6	28.1	5.0	33.1	**0.10**
46.75	14.25	139.07	1.91	1.38	13.32	115	2.688	2.688	0.786	1.40	0.63	0.56	71.58	9.71	0.88	10.59	1.09	72.99	2.12		1	64	1.48	1.00	108.4	0.76	0.198	0.301	**Non-Liq.**	4.9	15.0	5.0	20.0	**0.28**
47.24	14.40	243.55	1.99	0.82	23.32	130	2.720	2.720	0.781	0.83	0.53	0.61	137.99	16.56	0.32	16.88	1.02	139.55	1.75		1	91	1.07	1.00	149.5	0.69	0.391	0.299	**Non-Liq.**	5.6	25.0	4.9	29.9	**0.12**
47.74	14.55	243.51	1.83	0.75	23.32	130	2.752	2.752	0.776	0.76	0.52	0.61	137.92	16.31	0.25	16.56	1.02	139.49	1.73		1	91	1.06	1.00	147.3	0.68	0.377	0.297	**Non-Liq.**	5.6	24.8	4.6	29.5	**0.13**
48.23	14.70	300.49	2.05	0.68	28.77	130	2.784	2.784	0.771	0.69	0.50	0.62	173.46	20.07	0.18	20.25	1.01	175.08	1.62		1	100	1.00	1.00	175.1	0.68	Infin.	0.295	**Non-Liq.**	5.8	30.1	4.9	35.0	**0.09**
48.72	14.85	312.06	2.41	0.77	29.88	130	2.816	2.816	0.766	0.78	0.50	0.61	178.76	21.17	0.27	21.44	1.01	180.39	1.65		1	100	1.00	1.00	180.8	0.68	Infin.	0.293	**Non-Liq.**	5.8	31.3	4.9	36.2	**0.08**
49.21	15.00	288.85	2.27	0.79	27.66	130	2.848	2.848	0.761	0.79	0.51	0.60	162.80	19.46	0.28	19.74	1.01	164.42	1.68		1	97	1.03	1.00	168.9	0.67	Infin.	0.291	**Non-Liq.**	5.7	28.8	4.9	33.8	**0.09**
49.70	15.15	184.42	2.05	1.11	17.66	130	2.880	2.880	0.756	1.13	0.59	0.56	95.26	12.53	0.61	13.13	1.05	96.77	1.96		1	75	1.25	1.00	121.2	0.67	0.245	0.289	**Non-Liq.**	5.2	18.8	5.0	23.8	**0.19**
50.20	15.30	141.23	1.88	1.33	13.52	130	2.912	2.912	0.751	1.36	0.63	0.53	69.06	9.56	0.94	10.51	1.10	70.51	2.12		1	62	1.49	1.00	105.0	0.74	0.188	0.431	**Non-Liq.**	4.9	14.5	5.0	19.5	**0.00**

CPT-LIQUEFY.XLS - A SPREADSHEET FOR EMPIRICAL ESTIMATION OF LIQUEFACTION POTENTIAL USING CPT DATA

Developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Project: Somis Ranch Farmworker Housing

Job No: 302947-001

Date: 9/4/2019

Sounding: CPT-2

Liquefaction Analysis using 1998 NCEER (Robertson & Wride) method

Settlement Analysis using Tokimatsu & Seed (1987), clean sand Qc1n/N1(60) ratio =5

Total Liquefied Thickness (feet)
0.0
Total Induced Subsidence (inches)
0.1

EARTHQUAKE INFORMATION:

Magnitude: 7.2 (7.5)

PGA, g: 0.981 (0.88)

MSF: 1.11

GWT, feet: 50.0

Calc GWT, feet: 50.0

Plot: 1

Method Used: 1 (1998 NCEER (Robertson & Wride))

Averaging Increment: 3 (0.15 m)

Ignore 1st/last increment into sand/silt soils: 1 (yes)

Use Moss @ P_L: 15%

Induced CSR (M=7.5) = 0.65*PGA*(po/p'o)*rd/MSF

Ignore/remediate upper: 1.0 m

Use Tokimatsu & Seed (0) or Ishihara &Yoshmine (1): 0

Clean Sand Qc1n = C_Q*K_C*K_H*Qc

Unit Weight of unsaturated soils: 115 pcf

Required SF: 1.50

Max $\Delta N_{1(60)}$ - post liquefied: 5.5

SF = $CRR_{7.5}$*Kσ/CSR

Unit Weight of saturated soils: 130 pcf

Min SF of Liquefiable Layers: 0.00

Max $\Delta N_{1(60)}$ - non liquefied: 5.0

Limiting Ic for liquefiable soils: 2.60

Limiting Ic for K_H: 2.6

Avg SF of Liquefiable Layers: #DIV/0!

Depth (feet)	(m)	Tip Qc (tsf)	Friction Fs (tsf)	Friction Ratio Rf %	qc MPa	Total Unit Wt. (pcf)	Total Stress po (tsf)	Eff. Stress p'o (tsf)	rd	F %	n	Max 1.70 Cq	Q	Moss qc1 MPa	Moss Δqc MPa	Moss qc_{1mod} MPa	Moss eff K_C	Qc1n	Ic	Override	Liquef. Suscept. (0 or 1)	Rel. Dens. Dr (%)	K_C	K_H	Clean Sand Qc1n	1.0 Kσ	CRR	Induced M=7.5 CSR	Liquefac. Safety Factor	Qc1n $N_{1(60)}$ Ratio	Equiv. $N_{1(60)}$	FC Adj. $\Delta N_{1(60)}$	Equiv. $N_{1(60)cs}$	*Volumetric Strain (%)*
0.49	0.15	16.70	0.63	3.77	1.60	115	0.028	0.028	1.000	3.77	0.82	1.70	26.78	2.72	3.58	6.30		26.83	2.72		0			1.00	1.00		0.383	Non-Liq.	3.7	7.3			0.00
0.98	0.30	11.17	0.29	2.63	1.07	115	0.057	0.057	1.000	2.65	0.84	1.70	17.85	1.82	2.34	4.15		17.94	2.76		0			1.00	1.00		0.383	Non-Liq.	3.6	5.0			0.00
1.48	0.45	10.85	0.33	3.03	1.04	115	0.085	0.085	0.999	3.05	0.85	1.70	17.29	1.77	2.77	4.53		17.43	2.81		0			1.00	1.00		0.382	Non-Liq.	3.5	5.0			0.00
1.97	0.60	10.80	0.33	3.07	1.03	115	0.113	0.113	0.997	3.10	0.85	1.70	17.17	1.76	2.81	4.57		17.35	2.82		0			1.00	1.00		0.382	Non-Liq.	3.5	5.0			0.00
2.46	0.75	8.67	0.31	3.61	0.83	115	0.141	0.141	0.996	3.67	0.89	1.70	13.71	1.41	3.40	4.81		13.94	2.94		0			1.00	1.00		0.382	Non-Liq.	3.3	4.3			0.00
2.95	0.90	7.91	0.26	3.32	0.76	115	0.170	0.170	0.995	3.39	0.89	1.70	12.44	1.29	3.09	4.37		12.72	2.95		0			1.00	1.00		0.381	Non-Liq.	3.2	3.9			0.00
3.44	1.05	7.86	0.25	3.21	0.75	115	0.198	0.198	0.994	3.30	0.89	1.70	12.31	1.28	2.97	4.25		12.62	2.95		0			1.00	1.00		0.381	Non-Liq.	3.2	3.9			0.00
3.94	1.20	6.59	0.24	3.62	0.63	115	0.226	0.226	0.993	3.75	0.92	1.70	10.23	1.07	3.41	4.48		10.59	3.04		0			1.00	1.00		0.380	Non-Liq.	3.0	3.5			0.00
4.43	1.35	6.28	0.23	3.62	0.60	115	0.255	0.255	0.992	3.77	0.93	1.70	9.69	1.02	3.41	4.43		10.10	3.07		0			1.00	1.00		0.380	Non-Liq.	3.0	3.4			0.00
4.92	1.50	7.31	0.25	3.42	0.70	115	0.283	0.283	0.990	3.55	0.91	1.70	11.29	1.19	3.18	4.37		11.75	3.00		0			1.00	1.00		0.379	Non-Liq.	3.1	3.7			0.00
5.41	1.65	8.27	0.29	3.50	0.79	115	0.311	0.311	0.989	3.64	0.90	1.70	12.79	1.35	3.28	4.62		13.29	2.96		0			1.00	1.00		0.379	Non-Liq.	3.2	4.1			0.00
5.91	1.80	9.21	0.32	3.46	0.88	115	0.340	0.340	0.988	3.59	0.88	1.70	14.25	1.50	3.22	4.72		14.79	2.92		0			1.00	1.00		0.379	Non-Liq.	3.3	4.5			0.00
6.40	1.95	8.43	0.32	3.83	0.81	115	0.368	0.368	0.987	4.01	0.90	1.70	12.95	1.37	3.63	5.01		13.54	2.98		0			1.00	1.00		0.378	Non-Liq.	3.2	4.3			0.00
6.89	2.10	8.18	0.32	3.89	0.78	115	0.396	0.396	0.986	4.09	0.91	1.70	12.51	1.33	3.69	5.02		13.15	3.00		0			1.00	1.00		0.378	Non-Liq.	3.1	4.2			0.00
7.38	2.25	8.32	0.32	3.83	0.80	115	0.424	0.424	0.985	4.04	0.91	1.70	12.68	1.35	3.63	4.99		13.36	2.99		0			1.00	1.00		0.377	Non-Liq.	3.1	4.2			0.00
7.87	2.40	7.34	0.31	4.22	0.70	115	0.453	0.453	0.984	4.49	0.94	1.70	11.06	1.19	4.05	5.24		11.79	3.06		0			1.00	1.00		0.377	Non-Liq.	3.0	3.9			0.00
8.37	2.55	7.59	0.30	3.99	0.73	115	0.481	0.481	0.983	4.26	0.93	1.70	11.42	1.24	3.80	5.04		12.20	3.04		0			1.00	1.00		0.376	Non-Liq.	3.1	4.0			0.00
8.86	2.70	7.55	0.30	4.02	0.72	115	0.509	0.509	0.982	4.31	0.94	1.70	11.32	1.23	3.83	5.06		12.14	3.05		0			1.00	1.00		0.376	Non-Liq.	3.0	4.0			0.00
9.35	2.85	7.49	0.31	4.08	0.72	115	0.538	0.538	0.981	4.40	0.94	1.70	11.18	1.17	3.90	5.07		12.04	3.06		0			1.00	1.00		0.376	Non-Liq.	3.0	4.0			0.00
9.84	3.00	7.90	0.32	4.06	0.76	115	0.566	0.566	0.979	4.37	0.94	1.70	11.78	1.18	3.87	5.05		12.69	3.04		0			1.00	1.00		0.375	Non-Liq.	3.1	4.1			0.00
10.33	3.15	8.40	0.34	4.07	0.80	115	0.594	0.594	0.978	4.38	0.94	1.70	12.54	1.20	3.88	5.08		13.49	3.02		0			1.00	1.00		0.375	Non-Liq.	3.1	4.4			0.00
10.83	3.30	7.93	0.34	4.32	0.76	115	0.623	0.623	0.977	4.69	0.95	1.66	11.45	1.10	4.15	5.25		12.42	3.06		0			1.00	1.00		0.374	Non-Liq.	3.0	4.1			0.00
11.32	3.45	8.07	0.34	4.17	0.77	115	0.651	0.651	0.976	4.54	0.95	1.59	11.12	1.09	3.99	5.07		12.10	3.07		0			1.00	1.00		0.374	Non-Liq.	3.0	4.0			0.00
11.81	3.60	8.49	0.35	4.10	0.81	115	0.679	0.679	0.975	4.45	0.95	1.52	11.23	1.10	3.90	5.01		12.21	3.06		0			1.00	1.00		0.374	Non-Liq.	3.0	4.0			0.00
12.30	3.75	8.41	0.35	4.16	0.81	115	0.707	0.707	0.974	4.54	0.95	1.47	10.67	1.06	3.97	5.04		11.66	3.08		0			1.00	1.00		0.373	Non-Liq.	3.0	3.9			0.00
12.80	3.90	7.76	0.33	4.27	0.74	115	0.736	0.736	0.973	4.72	0.97	1.42	9.43	0.96	4.10	5.06		10.42	3.13		0			1.00	1.00		0.373	Non-Liq.	2.9	3.6			0.00
13.29	4.05	7.63	0.32	4.20	0.73	115	0.764	0.764	0.972	4.67	0.97	1.37	8.89	0.92	4.01	4.94		9.88	3.15		0			1.00	1.00		0.372	Non-Liq.	2.8	3.5			0.00
13.78	4.20	8.38	0.35	4.20	0.80	115	0.792	0.792	0.971	4.64	0.96	1.32	9.46	0.98	4.01	4.99		10.45	3.13		0			1.00	1.00		0.372	Non-Liq.	2.9	3.6			0.00
14.27	4.35	9.56	0.41	4.24	0.92	115	0.821	0.821	0.970	4.64	0.95	1.27	10.51	1.08	4.05	5.13		11.49	3.09		0			1.00	1.00		0.372	Non-Liq.	3.0	3.9			0.00
14.76	4.50	8.74	0.42	4.75	0.84	115	0.849	0.849	0.969	5.26	0.97	1.24	9.24	0.97	4.60	5.57		10.23	3.17		0			1.00	1.00		0.371	Non-Liq.	2.8	3.7			0.00
15.26	4.65	8.16	0.39	4.80	0.78	115	0.877	0.877	0.968	5.38	0.98	1.20	8.27	0.89	4.66	5.54		9.27	3.21		0			1.00	1.00		0.371	Non-Liq.	2.7	3.4			0.00
15.75	4.80	8.39	0.40	4.73	0.80	115	0.906	0.906	0.967	5.30	0.98	1.16	8.23	0.89	4.57	5.47		9.23	3.21		0			1.00	1.00		0.370	Non-Liq.	2.7	3.4			0.00
16.24	4.95	8.98	0.42	4.64	0.86	115	0.934	0.934	0.966	5.18	0.97	1.13	8.59	0.93	4.48	5.41		9.59	3.19		0			1.00	1.00		0.370	Non-Liq.	2.8	3.5			0.00
16.73	5.10	9.50	0.44	4.62	0.91	115	0.962	0.962	0.965	5.14	0.97	1.10	8.85	0.97	4.45	5.42		9.84	3.18		0			1.00	1.00		0.370	Non-Liq.	2.8	3.5			0.00
17.22	5.25	9.96	0.46	4.66	0.95	115	0.990	0.990	0.964	5.17	0.96	1.07	9.03	0.99	4.50	5.49		10.03	3.17		0			1.00	1.00		0.369	Non-Liq.	2.8	3.6			0.00
17.72	5.40	11.88	0.52	4.40	1.14	115	1.019	1.019	0.962	4.81	0.94	1.04	10.64	1.16	4.21	5.38		11.63	3.10		0			1.00	1.00		0.369	Non-Liq.	2.9	4.0			0.00
18.21	5.55	14.20	0.59	4.13	1.36	115	1.047	1.047	0.961	4.46	0.91	1.01	12.55	1.37	3.93	5.29		13.55	3.02		0			1.00	1.00		0.368	Non-Liq.	3.1	4.4			0.00
18.70	5.70	14.88	0.57	3.82	1.42	115	1.075	1.075	0.960	4.12	0.90	0.99	12.85	1.41	3.59	5.00		13.86	2.99		0			1.00	1.00		0.368	Non-Liq.	3.1	4.4			0.00
19.19	5.85	18.04	0.46	2.56	1.73	115	1.104	1.104	0.959	2.72	0.85	0.96	15.44	1.69	2.22	3.91		16.45	2.82		0			1.00	0.99		0.367	Non-Liq.	3.5	4.7			0.00
19.69	6.00	12.53	0.45	3.55	1.20	115	1.132	1.132	0.958	3.90	0.92	0.94	10.13	1.15	3.29	4.45		11.13	3.06		0			1.00	0.99		0.367	Non-Liq.	3.0	3.7			0.00
20.18	6.15	9.61	0.52	5.36	0.92	115	1.160	1.160	0.956	6.10	0.99	0.91	7.29	0.87	4.85	5.72		8.29	3.29		0			1.00	0.98		0.366	Non-Liq.	2.6	3.2			0.00
20.67	6.30	10.16	0.53	5.26	0.97	115	1.188	1.188	0.955	5.96	0.98	0.89	7.56	0.91	4.85	5.76		8.57	3.27		0			1.00	0.98		0.366	Non-Liq.	2.6	3.3			0.00
21.16	6.45	10.03	0.54	5.43	0.96	115	1.217	1.217	0.954	6.17	0.99	0.87	7.26	0.88	4.85	5.73		8.26	3.29		0			1.00	0.97		0.365	Non-Liq.	2.6	3.2			0.00
21.65	6.60	10.65	0.54	5.04	1.02	115	1.245	1.245	0.952	5.71	0.98	0.85	7.58	0.93	4.85	5.77		8.58	3.26		0			1.00	0.97		0.365	Non-Liq.	2.6	3.3			0.00
22.15	6.75	11.51	0.52	4.55	1.10	115	1.273	1.273	0.951	5.11	0.96	0.84	8.10	0.99	4.36	5.35		9.10	3.21		0			1.00	0.96		0.364	Non-Liq.	2.7	3.3			0.00
22.64	6.90	12.05	0.51	4.23	1.15	115	1.302	1.302	0.950	4.74	0.95	0.82	8.34	1.02	4.01	5.04		9.35	3.18		0			1.00	0.96		0.364	Non-Liq.	2.8	3.4			0.00
23.13	7.05	9.46	0.46	4.84	0.91	115	1.330	1.330	0.948	5.63	0.99	0.80	6.12	0.78	4.66	5.45		7.12	3.33		0			1.00	0.96		0.363	Non-Liq.	2.5	2.9			0.00

Depth		Tip Qc	Friction Fs	Friction Ratio	qc	Total Unit Wt.	Total Stress	Eff. Stress				Max 1.70		Moss qc1	Moss Δqc	Moss qc_{1mod}	Moss eff			Overide	Liquef. Suscept.	Rel. Dens.			Clean Sand	1.0		Induced M=7.5	**Liquefac. Safety**	Qc1n $N_{1(60)}$	Equiv.	FC Adj.	Equiv.	***Volumetric Strain***
(feet)	(m)	(tsf)	(tsf)	Rf %	MPa	(pcf)	po (tsf)	p'o (tsf)	rd	%	n	Cq	Q	MPa	MPa	MPa	K_C	Qc1n	Ic		(0 or 1)	Dr (%)	K_C	K_H	Qc1n	Kσ	CRR	CSR	**Factor**	Ratio	$N_{1(60)}$	$ΔN_{1(60)}$	$N_{1(60)cs}$	***(%)***
23.62	7.20	9.96	0.45	4.51	0.95	115	1.358	1.358	0.946	5.23	0.98	0.78	6.36	0.82	4.31	5.13		7.36	3.30		0			1.00		0.95		0.363	**Non-Liq.**	2.5	2.9			**0.00**
24.11	7.35	12.08	0.51	4.26	1.16	115	1.387	1.387	0.945	4.81	0.96	0.77	7.80	0.99	4.04	5.03		8.81	3.20		0			1.00		0.95		0.362	**Non-Liq.**	2.7	3.2			**0.00**
24.61	7.50	14.22	0.54	3.82	1.36	115	1.415	1.415	0.943	4.24	0.93	0.76	9.24	1.16	3.56	4.72		10.26	3.11		0			1.00		0.94		0.361	**Non-Liq.**	2.9	3.5			**0.00**
25.10	7.65	15.72	0.61	3.85	1.51	115	1.443	1.443	0.941	4.24	0.92	0.75	10.14	1.28	3.59	4.88		11.17	3.08		0			1.00		0.94		0.361	**Non-Liq.**	3.0	3.8			**0.00**
25.59	7.80	15.83	0.58	3.68	1.52	115	1.471	1.471	0.940	4.06	0.92	0.74	10.04	1.28	3.41	4.69		11.07	3.07		0			1.00		0.94		0.360	**Non-Liq.**	3.0	3.7			**0.00**
26.08	7.95	35.07	0.49	1.40	3.36	115	1.500	1.500	0.938	1.47	0.75	0.77	24.43	3.26	0.97	4.22		29.42	2.50		0			1.15		0.93		0.359	**Non-Liq.**	4.1	7.2			**0.00**
26.57	8.10	50.59	0.59	1.16	4.84	115	1.528	1.528	0.936	1.20	0.69	0.77	35.93	4.70	0.71	5.41	1.15	42.70	2.31		1	42	1.99	1.15	85.1	0.93	0.137	0.359	**Non-Liq.**	4.5	9.6	5.0	14.6	**0.80**
27.07	8.25	78.13	0.80	1.03	7.48	115	1.556	1.556	0.934	1.05	0.64	0.78	56.58	7.29	0.57	7.86	1.08	66.54	2.12		1	60	1.49	1.15	99.2	0.89	0.171	0.358	**Non-Liq.**	4.8	13.7	5.0	18.7	**0.43**
27.56	8.40	72.72	0.95	1.31	6.96	115	1.585	1.585	0.932	1.34	0.67	0.76	51.38	6.80	0.86	7.67		60.54	2.21		0			1.15		0.92		0.357	**Non-Liq.**	4.7	13.0			**0.00**
28.05	8.55	36.81	1.05	2.85	3.52	115	1.613	1.613	0.930	2.98	0.80	0.71	23.71	2.98	2.51	5.49		24.79	2.69		0			1.00		0.92		0.356	**Non-Liq.**	3.7	6.7			**0.00**
28.54	8.70	27.83	0.90	3.25	2.67	115	1.641	1.641	0.928	3.45	0.85	0.69	17.07	2.21	2.93	5.14		18.14	2.85		0			1.00		0.92		0.355	**Non-Liq.**	3.4	5.3			**0.00**
29.04	8.85	29.61	0.79	2.68	2.84	115	1.670	1.670	0.925	2.84	0.82	0.69	18.13	2.32	2.32	4.64		19.21	2.77		0			1.00		0.91		0.354	**Non-Liq.**	3.6	5.4			**0.00**
29.53	9.00	23.44	0.83	3.56	2.24	115	1.698	1.698	0.923	3.84	0.88	0.66	13.58	1.82	3.26	5.07		14.64	2.95		0			1.00		0.91		0.354	**Non-Liq.**	3.2	4.5			**0.00**
30.02	9.15	27.88	0.76	2.72	2.67	115	1.726	1.726	0.920	2.90	0.83	0.66	16.43	2.15	2.36	4.51		17.51	2.81		0			1.00		0.91		0.353	**Non-Liq.**	3.5	5.0			**0.00**
30.51	9.30	32.29	0.83	2.57	3.09	115	1.754	1.754	0.918	2.72	0.81	0.66	19.11	2.49	2.20	4.69		20.21	2.74		0			1.00		0.90		0.352	**Non-Liq.**	3.6	5.6			**0.00**
31.00	9.45	19.33	0.84	4.33	1.85	115	1.783	1.783	0.915	4.77	0.92	0.62	10.28	1.45	4.06	5.52		11.32	3.11		0			1.00		0.90		0.351	**Non-Liq.**	2.9	3.9			**0.00**
31.50	9.60	34.58	0.83	2.41	3.31	115	1.811	1.811	0.913	2.54	0.80	0.65	20.11	2.63	2.03	4.66		21.22	2.71		0			1.00		0.90		0.350	**Non-Liq.**	3.7	5.7			**0.00**
31.99	9.75	49.39	0.93	1.89	4.73	115	1.839	1.839	0.910	1.96	0.75	0.66	29.76	5.96	1.47	7.44		48.83	2.51		0			1.58		0.90		0.349	**Non-Liq.**	4.1	11.9			**0.00**
32.48	9.90	32.80	0.94	2.87	3.14	115	1.868	1.868	0.907	3.05	0.83	0.63	18.29	2.48	2.51	4.99		19.39	2.79		0			1.00		0.89		0.347	**Non-Liq.**	3.5	5.5			**0.00**
32.97	10.05	39.28	1.04	2.64	3.76	115	1.896	1.896	0.904	2.78	0.80	0.63	22.16	2.98	2.27	5.25		23.28	2.70		0			1.00		0.89		0.346	**Non-Liq.**	3.7	6.3			**0.00**
33.46	10.20	110.84	1.27	1.15	10.61	115	1.924	1.924	0.901	1.17	0.62	0.69	71.00	13.34	0.69	14.02		114.14	2.07		0			1.58		0.89		0.345	**Non-Liq.**	4.9	23.1			**0.00**
33.96	10.35	47.14	1.38	2.92	4.51	115	1.953	1.953	0.898	3.04	0.79	0.62	26.33	3.61	2.55	6.16		27.46	2.67		0			1.00		0.88		0.344	**Non-Liq.**	3.8	7.3			**0.00**
34.45	10.50	23.42	1.10	4.68	2.24	115	1.981	1.981	0.894	5.11	0.91	0.57	11.47	1.73	4.40	6.12		12.53	3.09		0			1.00		0.88		0.343	**Non-Liq.**	3.0	4.2			**0.00**
34.94	10.65	15.09	0.74	4.87	1.45	115	2.009	2.009	0.891	5.62	0.97	0.54	6.65	1.05	4.60	5.64		7.67	3.30		0			1.00		0.88		0.341	**Non-Liq.**	2.5	3.0			**0.00**
35.43	10.80	26.05	0.80	3.08	2.49	115	2.037	2.037	0.888	3.35	0.86	0.57	12.89	1.86	2.71	4.58		13.98	2.93		0			1.00		0.88		0.340	**Non-Liq.**	3.3	4.3			**0.00**
35.93	10.95	28.98	0.93	3.22	2.77	115	2.066	2.066	0.884	3.47	0.86	0.56	14.35	2.09	2.85	4.94		15.45	2.91		0			1.00		0.87		0.339	**Non-Liq.**	3.3	4.7			**0.00**
36.42	11.10	51.27	0.98	1.92	4.91	115	2.094	2.094	0.880	2.00	0.75	0.60	27.85	5.90	1.48	7.38		45.87	2.53		0			1.58		0.87		0.337	**Non-Liq.**	4.0	11.3			**0.00**
36.91	11.25	38.14	1.07	2.81	3.65	115	2.122	2.122	0.877	2.97	0.81	0.57	19.31	2.77	2.41	5.18		20.44	2.76		0			1.00		0.87		0.336	**Non-Liq.**	3.6	5.7			**0.00**
37.40	11.40	21.62	0.87	4.00	2.07	115	2.151	2.151	0.873	4.44	0.91	0.52	9.64	1.51	3.65	5.16		10.71	3.11		0			1.00		0.87		0.334	**Non-Liq.**	2.9	3.7			**0.00**
37.89	11.55	23.12	0.73	3.16	2.21	115	2.179	2.179	0.869	3.49	0.88	0.53	10.45	1.59	2.77	4.36		11.53	3.02		0			1.00		0.87		0.333	**Non-Liq.**	3.1	3.7			**0.00**
38.39	11.70	18.07	0.71	3.94	1.73	115	2.207	2.207	0.865	4.49	0.93	0.50	7.55	1.21	3.58	4.79		8.60	3.20		0			1.00		0.86		0.331	**Non-Liq.**	2.7	3.1			**0.00**
38.88	11.85	15.24	0.58	3.80	1.46	115	2.235	2.235	0.861	4.46	0.95	0.49	6.02	0.98	3.43	4.41		7.05	3.28		0			1.00		0.86		0.330	**Non-Liq.**	2.6	2.7			**0.00**
39.37	12.00	16.24	0.58	3.58	1.56	115	2.264	2.264	0.857	4.16	0.94	0.49	6.45	1.05	3.20	4.24		7.49	3.23		0			1.00		0.86		0.328	**Non-Liq.**	2.7	2.8			**0.00**
39.86	12.15	16.90	0.65	3.82	1.62	115	2.292	2.292	0.852	4.42	0.94	0.48	6.66	1.10	3.44	4.54		7.71	3.24		0			1.00		0.86		0.326	**Non-Liq.**	2.7	2.9			**0.00**
40.35	12.30	19.93	0.76	3.81	1.91	115	2.320	2.320	0.848	4.31	0.92	0.48	8.06	1.32	3.42	4.74		9.13	3.16		0			1.00		0.85		0.325	**Non-Liq.**	2.8	3.3			**0.00**
40.85	12.45	30.64	0.88	2.86	2.93	115	2.349	2.349	0.843	3.10	0.85	0.51	13.60	2.09	2.43	4.52		14.73	2.90		0			1.00		0.85		0.323	**Non-Liq.**	3.3	4.4			**0.00**
41.34	12.60	34.41	0.98	2.83	3.29	115	2.377	2.377	0.839	3.04	0.83	0.51	15.41	2.37	2.40	4.77		16.55	2.85		0			1.00		0.85		0.321	**Non-Liq.**	3.4	4.8			**0.00**
41.83	12.75	47.19	1.04	2.21	4.52	115	2.405	2.405	0.834	2.33	0.78	0.53	22.33	3.27	1.75	5.02		23.53	2.65		0			1.00		0.85		0.320	**Non-Liq.**	3.8	6.2			**0.00**
42.32	12.90	70.03	1.07	1.53	6.71	115	2.434	2.434	0.830	1.59	0.71	0.56	35.46	6.12	1.06	7.18		46.45	2.39		0			1.26		0.85		0.318	**Non-Liq.**	4.3	10.7			**0.00**
42.81	13.05	58.32	1.16	2.00	5.59	115	2.462	2.462	0.825	2.08	0.75	0.53	28.06	5.12	1.53	6.65		37.04	2.54		0			1.26		0.84		0.316	**Non-Liq.**	4.0	9.2			**0.00**
43.31	13.20	42.45	1.19	2.81	4.07	115	2.490	2.490	0.820	2.99	0.81	0.50	18.84	2.94	2.36	5.30		20.01	2.77		0			1.00		0.84		0.314	**Non-Liq.**	3.6	5.6			**0.00**
43.80	13.35	43.50	1.14	2.62	4.17	115	2.518	2.518	0.816	2.78	0.80	0.50	19.27	2.98	2.16	5.14		20.46	2.75		0			1.00		0.84		0.312	**Non-Liq.**	3.6	5.6			**0.00**
44.29	13.50	62.51	1.24	1.98	5.99	115	2.547	2.547	0.811	2.06	0.74	0.52	29.52	4.97	1.50	6.47		35.48	2.52		0			1.15		0.84		0.311	**Non-Liq.**	4.1	8.7			**0.00**
44.78	13.65	75.81	1.49	1.97	7.26	115	2.575	2.575	0.806	2.04	0.72	0.53	36.42	6.11	1.49	7.60	1.24	43.45	2.45		1	42	2.51	1.15	109.1	0.84	0.201	0.309	**Non-Liq.**	4.2	10.3	5.0	15.3	**0.53**
45.28	13.80	84.44	1.41	1.67	8.09	115	2.603	2.603	0.801	1.72	0.70	0.53	41.29	6.73	1.18	7.91	1.18	49.10	2.36		1	47	2.15	1.15	105.5	0.84	0.189	0.307	**Non-Liq.**	4.4	11.2	5.0	16.2	**0.46**
45.77	13.95	66.95	1.33	1.99	6.41	115	2.632	2.632	0.796	2.07	0.74	0.51	31.05	5.30	1.50	6.80		37.26	2.50		0			1.15		0.83		0.305	**Non-Liq.**	4.1	9.1			**0.00**
46.26	14.10	55.98	1.40	2.50	5.36	115	2.660	2.660	0.791	2.63	0.78	0.49	24.64	3.85	2.01	5.86		25.86	2.65		0			1.00		0.83		0.303	**Non-Liq.**	3.8	6.8			**0.00**
46.75	14.25	21.45	1.03	4.82	2.05	115	2.688	2.688	0.786	5.52	0.94	0.41	7.36	1.37	4.34	5.72		8.41	3.26		0			1.00		0.83		0.301	**Non-Liq.**	2.6	3.2			**0.00**
47.24	14.40	78.22	1.15	1.47	7.49	130	2.720	2.720	0.781	1.52	0.70	0.52	36.92	7.32	0.97	8.30		53.81	2.36		0			1.41		0.83		0.299	**Non-Liq.**	4.4	12.3			**0.00**
47.74	14.55	92.91	1.49	1.61	8.90	130	2.752	2.752	0.776	1.65	0.69	0.52	44.19	6.33	1.10	7.43		45.54	2.32		0			1.00		0.83		0.297	**Non-Liq.**	4.5	10.2			**0.00**
48.23	14.70	34.49	1.33	3.84	3.30	130	2.784	2.784	0.771	4.18	0.87	0.43	12.92	2.30	3.33	5.63		14.06	2.99		0			1.00		0.82		0.295	**Non-Liq.**	3.1	4.5			**0.00**
48.72	14.85	18.30	0.95	5.18	1.75	130	2.816	2.816	0.766	6.12	0.97	0.39	5.64	1.12	4.47	5.60		6.67	3.38		0			1.00		0.82		0.293	**Non-Liq.**	2.4	2.8			**0.00**
49.21	15.00	14.79	0.63	4.28	1.42	130	2.848	2.848	0.761	5.30	0.99	0.38	4.23	0.84	3.75	4.59		5.24	3.44		0			1.00		0.82		0.291	**Non-Liq.**	2.3	2.3			**0.00**
49.70	15.15	27.73	0.75	2.71	2.66	130	2.880	2.880	0.756	3.02	0.87	0.42	9.83	1.69	2.18	3.88		10.97	3.00		0			1.00		0.82		0.289	**Non-Liq.**	3.1	3.5			**0.00**
50.20	15.30	53.69	1.12	2.09	5.14	130	2.912	2.912	0.751	2.21	0.77	0.46	21.97	3.48	1.82	5.30		23.23	2.64		0			1.00		0.82		0.431	**Non-Liq.**	3.8	6.1			**0.00**

CPT-LIQUEFY.XLS - A SPREADSHEET FOR EMPIRICAL ESTIMATION OF LIQUEFACTION POTENTIAL USING CPT DATA

Developed 2003 by Shelton L. Stringer, GE, Earth Systems Southwest

Project: Somis Ranch Farmworker Housing

Job No: 302947-001

Date: 9/4/2019

Sounding: CPT-3

Liquefaction Analysis using 1998 NCEER (Robertson & Wride) method

Settlement Analysis using Tokimatsu & Seed (1987), clean sand Qc1n/N1(60) ratio =5

Total Liquefied Thickness (feet)
0.0
Total Induced Subsidence (inches)
0.2

EARTHQUAKE INFORMATION:

Magnitude: 7.2 (7.5)

PGA, g: 0.981 (0.88)

MSF: 1.11

GWT, feet: 50.0

Calc GWT, feet: 50.0

Plot: 2

Method Used: 1 (1998 NCEER (Robertson & Wride))

Averaging Increment: 3 (0.15 m)

Induced CSR (M=7.5) = 0.65*PGA*(po/p'o)*rd/MSF

Clean Sand Qc1n = C_Q*K_C*K_H*Qc

SF = $CRR_{7.5}$*Kσ/CSR

Ignore 1st/last increment into sand/silt soils: 1 (yes)

Ignore/remediate upper: 1.0 m

Unit Weight of unsaturated soils: 115 pcf

Unit Weight of saturated soils: 130 pcf

Limiting Ic for liquefiable soils: 2.60

Limiting Ic for K_H: 2.6

Use Moss @ P_L: 15%

Use Tokimatsu & Seed (0) or Ishihara &Yoshmine (1): 0

Required SF: 1.50

Max $\Delta N_{1(60)}$ - post liquefied: 5.5

Max $\Delta N_{1(60)}$ - non liquefied: 5.0

Min SF of Liquefiable Layers: 0.00

Avg SF of Liquefiable Layers: #DIV/0!

Depth (feet)	(m)	Tip Qc (tsf)	Friction Fs (tsf)	Friction Ratio Rf %	qc MPa	Total Unit Wt. (pcf)	Total Stress po (tsf)	Eff. Stress p'o (tsf)	rd	F %	n	Max 1.70 Cq	Q	Moss qc1 MPa	Moss Δqc MPa	Moss qc_{1mod} MPa	Moss eff K_C	Qc1n	Ic	Override	Liquef. Suscept. (0 or 1)	Rel. Dens. Dr (%)	K_C	K_H	Clean Sand Qc1n	1.0 Kσ	CRR	Induced M=7.5 CSR	Liquefac. Safety Factor	Qc1n $N_{1(60)}$ Ratio	Equiv. $N_{1(60)}$	FC Adj. $\Delta N_{1(60)}$	Equiv. $N_{1(60)cs}$	*Volumetric Strain (%)*
0.49	0.15	14.46	0.42	2.90	1.39	115	0.028	0.028	1.000	2.90	0.82	1.70	23.19	2.35	2.63	4.98		23.24	2.69		0			1.00	1.00		0.383	Non-Liq.	3.7	6.2			0.00
0.98	0.30	13.02	0.33	2.50	1.25	115	0.057	0.057	1.000	2.51	0.82	1.70	20.84	2.12	2.19	4.31		20.93	2.69		0			1.00	1.00		0.383	Non-Liq.	3.7	5.6			0.00
1.48	0.45	12.86	0.68	5.30	1.23	115	0.085	0.085	0.999	5.34	0.88	1.70	20.53	2.09	4.93	7.02		20.67	2.91		0			1.00	1.00		0.382	Non-Liq.	3.3	6.2			0.00
1.97	0.60	11.87	0.64	5.39	1.14	115	0.113	0.113	0.997	5.44	0.89	1.70	18.90	1.93	4.92	6.86		19.08	2.94		0			1.00	1.00		0.382	Non-Liq.	3.2	5.9			0.00
2.46	0.75	8.02	0.52	6.48	0.77	115	0.141	0.141	0.996	6.60	0.95	1.70	12.65	1.31	4.92	6.23		12.88	3.13		0			1.00	1.00		0.382	Non-Liq.	2.9	4.5			0.00
2.95	0.90	7.45	0.45	6.10	0.71	115	0.170	0.170	0.995	6.24	0.95	1.70	11.70	1.21	4.92	6.13		11.98	3.14		0			1.00	1.00		0.381	Non-Liq.	2.9	4.2			0.00
3.44	1.05	7.90	0.45	5.72	0.76	115	0.198	0.198	0.994	5.87	0.94	1.70	12.38	1.29	4.92	6.20		12.69	3.10		0			1.00	1.00		0.381	Non-Liq.	2.9	4.3			0.00
3.94	1.20	8.08	0.46	5.65	0.77	115	0.226	0.226	0.993	5.81	0.94	1.70	12.62	1.32	4.92	6.23		12.98	3.09		0			1.00	1.00		0.380	Non-Liq.	3.0	4.4			0.00
4.43	1.35	8.44	0.48	5.74	0.81	115	0.255	0.255	0.992	5.92	0.93	1.70	13.15	1.37	4.91	6.29		13.56	3.08		0			1.00	1.00		0.380	Non-Liq.	3.0	4.6			0.00
4.92	1.50	8.37	0.49	5.91	0.80	115	0.283	0.283	0.990	6.12	0.94	1.70	12.99	1.36	4.91	6.28		13.45	3.09		0			1.00	1.00		0.379	Non-Liq.	2.9	4.6			0.00
5.41	1.65	7.42	0.44	5.98	0.71	115	0.311	0.311	0.989	6.25	0.95	1.70	11.43	1.21	4.91	6.12		11.93	3.14		0			1.00	1.00		0.379	Non-Liq.	2.8	4.2			0.00
5.91	1.80	7.06	0.40	5.62	0.68	115	0.340	0.340	0.988	5.91	0.95	1.70	10.79	1.15	4.91	6.06		11.34	3.15		0			1.00	1.00		0.379	Non-Liq.	2.8	4.0			0.00
6.40	1.95	6.27	0.36	5.72	0.60	115	0.368	0.368	0.987	6.08	0.97	1.70	9.48	1.02	4.91	5.93		10.07	3.20		0			1.00	1.00		0.378	Non-Liq.	2.7	3.7			0.00
6.89	2.10	5.13	0.28	5.39	0.49	115	0.396	0.396	0.986	5.85	0.99	1.70	7.60	0.83	4.90	5.74		8.24	3.26		0			1.00	1.00		0.378	Non-Liq.	2.6	3.2			0.00
7.38	2.25	3.60	0.24	6.77	0.35	115	0.424	0.424	0.985	7.68	1.00	1.70	5.11	0.59	4.90	5.49		5.79	3.47		0			1.00	1.00		0.377	Non-Liq.	2.2	2.6			0.00
7.87	2.40	6.39	0.31	4.92	0.61	115	0.453	0.453	0.984	5.30	0.97	1.70	9.53	1.04	4.82	5.86		10.26	3.16		0			1.00	1.00		0.377	Non-Liq.	2.8	3.6			0.00
8.37	2.55	6.39	0.35	5.53	0.61	115	0.481	0.481	0.983	5.98	0.98	1.70	9.49	1.04	4.90	5.94		10.27	3.19		0			1.00	1.00		0.376	Non-Liq.	2.7	3.7			0.00
8.86	2.70	6.01	0.33	5.46	0.58	115	0.509	0.509	0.982	5.97	0.99	1.70	8.84	0.98	4.90	5.88		9.66	3.22		0			1.00	1.00		0.376	Non-Liq.	2.7	3.6			0.00
9.35	2.85	5.92	0.31	5.20	0.57	115	0.538	0.538	0.981	5.72	0.99	1.70	8.65	0.96	4.90	5.86		9.52	3.21		0			1.00	1.00		0.376	Non-Liq.	2.7	3.5			0.00
9.84	3.00	6.54	0.33	5.02	0.63	115	0.566	0.566	0.979	5.49	0.98	1.70	9.60	1.01	4.89	5.90		10.51	3.17		0			1.00	1.00		0.375	Non-Liq.	2.8	3.8			0.00
10.33	3.15	6.65	0.36	5.46	0.64	115	0.594	0.594	0.978	6.00	0.99	1.70	9.74	0.98	4.89	5.87		10.69	3.19		0			1.00	1.00		0.375	Non-Liq.	2.8	3.9			0.00
10.83	3.30	6.29	0.37	5.80	0.60	115	0.623	0.623	0.977	6.44	1.00	1.70	9.11	0.90	4.89	5.79		10.11	3.23		0			1.00	1.00		0.374	Non-Liq.	2.7	3.8			0.00
11.32	3.45	6.62	0.36	5.39	0.63	115	0.651	0.651	0.976	5.97	0.99	1.62	9.15	0.91	4.89	5.80		10.14	3.21		0			1.00	1.00		0.374	Non-Liq.	2.7	3.7			0.00
11.81	3.60	6.03	0.31	5.17	0.58	115	0.679	0.679	0.975	5.83	1.00	1.56	7.88	0.82	4.89	5.71		8.88	3.25		0			1.00	1.00		0.374	Non-Liq.	2.6	3.4			0.00
12.30	3.75	6.14	0.28	4.48	0.59	115	0.707	0.707	0.974	5.06	1.00	1.49	7.67	0.81	4.32	5.13		8.67	3.22		0			1.00	1.00		0.373	Non-Liq.	2.7	3.2			0.00
12.80	3.90	6.22	0.28	4.58	0.60	115	0.736	0.736	0.973	5.19	1.00	1.44	7.45	0.79	4.42	5.22		8.45	3.24		0			1.00	1.00		0.373	Non-Liq.	2.7	3.2			0.00
13.29	4.05	6.15	0.29	4.72	0.59	115	0.764	0.764	0.972	5.39	1.00	1.38	7.05	0.76	4.58	5.34		8.05	3.27		0			1.00	1.00		0.372	Non-Liq.	2.6	3.1			0.00
13.78	4.20	6.75	0.30	4.45	0.65	115	0.792	0.792	0.971	5.04	0.99	1.33	7.50	0.81	4.28	5.09		8.50	3.23		0			1.00	1.00		0.372	Non-Liq.	2.7	3.2			0.00
14.27	4.35	7.87	0.35	4.40	0.75	115	0.821	0.821	0.970	4.91	0.97	1.28	8.53	0.90	4.23	5.13		9.52	3.18		0			1.00	1.00		0.372	Non-Liq.	2.8	3.4			0.00
14.76	4.50	7.52	0.37	4.93	0.72	115	0.849	0.849	0.969	5.56	0.99	1.24	7.84	0.84	4.80	5.64		8.84	3.24		0			1.00	1.00		0.371	Non-Liq.	2.7	3.3			0.00
15.26	4.65	7.56	0.37	4.92	0.72	115	0.877	0.877	0.968	5.57	0.99	1.20	7.61	0.83	4.79	5.62		8.61	3.25		0			1.00	1.00		0.371	Non-Liq.	2.6	3.3			0.00
15.75	4.80	8.07	0.40	4.98	0.77	115	0.906	0.906	0.967	5.61	0.99	1.17	7.90	0.86	4.85	5.71		8.90	3.24		0			1.00	1.00		0.370	Non-Liq.	2.7	3.3			0.00
16.24	4.95	8.41	0.42	5.03	0.81	115	0.934	0.934	0.966	5.66	0.99	1.13	8.00	0.88	4.87	5.75		8.99	3.24		0			1.00	1.00		0.370	Non-Liq.	2.7	3.4			0.00
16.73	5.10	7.83	0.40	5.12	0.75	115	0.962	0.962	0.965	5.84	1.00	1.10	7.14	0.80	4.87	5.67		8.14	3.28		0			1.00	1.00		0.370	Non-Liq.	2.6	3.2			0.00
17.22	5.25	7.85	0.38	4.89	0.75	115	0.990	0.990	0.964	5.60	1.00	1.07	6.92	0.79	4.75	5.54		7.92	3.28		0			1.00	1.00		0.369	Non-Liq.	2.6	3.1			0.00
17.72	5.40	7.96	0.40	4.96	0.76	115	1.019	1.019	0.962	5.69	1.00	1.04	6.81	0.78	4.83	5.61		7.81	3.29		0			1.00	1.00		0.369	Non-Liq.	2.6	3.1			0.00
18.21	5.55	7.63	0.38	5.01	0.73	115	1.047	1.047	0.961	5.80	1.00	1.01	6.29	0.74	4.86	5.60		7.29	3.33		0			1.00	1.00		0.368	Non-Liq.	2.5	2.9			0.00
18.70	5.70	7.61	0.38	4.98	0.73	115	1.075	1.075	0.960	5.80	1.00	0.98	6.08	0.72	4.84	5.56		7.08	3.34		0			1.00	1.00		0.368	Non-Liq.	2.5	2.9			0.00
19.19	5.85	8.11	0.41	5.09	0.78	115	1.104	1.104	0.959	5.89	1.00	0.96	6.35	0.75	4.86	5.61		7.35	3.33		0			1.00	0.99		0.367	Non-Liq.	2.5	3.0			0.00
19.69	6.00	8.28	0.42	5.08	0.79	115	1.132	1.132	0.958	5.88	1.00	0.93	6.32	0.76	4.86	5.61		7.32	3.33		0			1.00	0.99		0.367	Non-Liq.	2.5	2.9			0.00
20.18	6.15	7.98	0.41	5.12	0.76	115	1.160	1.160	0.956	5.99	1.00	0.91	5.88	0.72	4.85	5.57		6.88	3.36		0			1.00	0.98		0.366	Non-Liq.	2.4	2.8			0.00
20.67	6.30	7.95	0.41	5.18	0.76	115	1.188	1.188	0.955	6.09	1.00	0.89	5.69	0.70	4.85	5.55		6.69	3.37		0			1.00	0.98		0.366	Non-Liq.	2.4	2.8			0.00
21.16	6.45	8.50	0.44	5.21	0.81	115	1.217	1.217	0.954	6.08	1.00	0.87	5.99	0.74	4.85	5.59		6.99	3.36		0			1.00	0.97		0.365	Non-Liq.	2.4	2.9			0.00
21.65	6.60	9.28	0.49	5.27	0.89	115	1.245	1.245	0.952	6.09	1.00	0.85	6.46	0.80	4.85	5.65		7.46	3.33		0			1.00	0.97		0.365	Non-Liq.	2.5	3.0			0.00
22.15	6.75	14.80	0.62	4.18	1.42	115	1.273	1.273	0.951	4.57	0.92	0.84	10.77	1.29	3.96	5.25		11.79	3.08		0			1.00	0.96		0.364	Non-Liq.	3.0	4.0			0.00
22.64	6.90	14.79	0.72	4.85	1.42	115	1.302	1.302	0.950	5.32	0.94	0.82	10.50	1.27	4.68	5.95		11.51	3.13		0			1.00	0.96		0.364	Non-Liq.	2.9	4.0			0.00
23.13	7.05	11.88	0.67	5.60	1.14	115	1.330	1.330	0.948	6.31	0.98	0.80	7.98	1.00	4.84	5.84		8.98	3.27		0			1.00	0.96		0.363	Non-Liq.	2.6	3.4			0.00

Depth		Tip Qc	Friction Fs	Friction Ratio	qc	Total Unit Wt.	Total Stress	Eff. Stress				Max 1.70		Moss qc1	Moss Δqc	Moss qc_{1mod}	Moss eff			Override	Liquef. Suscept.	Rel. Dens.			Clean Sand	1.0		Induced M=7.5	Liquefac. Safety	Qc1n $N_{1(60)}$	Equiv.	FC Adj.	Equiv.	Volumetric Strain
(feet)	(m)	(tsf)	(tsf)	Rf %	MPa	(pcf)	po (tsf)	p'o (tsf)	rd	%	n	Cq	Q	MPa	MPa	MPa	K_C	Qc1n	Ic		(0 or 1)	Dr (%)	K_C	K_H	Qc1n	Kσ	CRR	CSR	Factor	Ratio	$N_{1(60)}$	$ΔN_{1(60)}$	$N_{1(60)cs}$	(%)
23.62	7.20	13.02	0.60	4.63	1.25	115	1.358	1.358	0.946	5.17	0.95	0.79	8.69	1.09	4.44	5.53		9.70	3.19		0			1.00		0.95		0.363	**Non-Liq.**	2.8	3.5			**0.00**
24.11	7.35	19.14	0.63	3.27	1.83	115	1.387	1.387	0.945	3.53	0.88	0.79	13.23	1.60	2.98	4.58		14.26	2.94		0			1.00		0.95		0.362	**Non-Liq.**	3.2	4.4			**0.00**
24.61	7.50	13.40	0.67	5.02	1.28	115	1.415	1.415	0.943	5.61	0.96	0.76	8.57	1.10	4.83	5.93		9.59	3.21		0			1.00		0.94		0.361	**Non-Liq.**	2.7	3.5			**0.00**
25.10	7.65	15.43	0.74	4.77	1.48	115	1.443	1.443	0.941	5.26	0.94	0.75	9.88	1.26	4.58	5.85		10.90	3.15		0			1.00		0.94		0.361	**Non-Liq.**	2.8	3.8			**0.00**
25.59	7.80	17.97	0.73	4.09	1.72	115	1.471	1.471	0.940	4.45	0.91	0.74	11.56	1.47	3.84	5.31		12.59	3.05		0			1.00		0.94		0.360	**Non-Liq.**	3.0	4.1			**0.00**
26.08	7.95	16.00	0.61	3.80	1.53	115	1.500	1.500	0.938	4.19	0.92	0.73	9.95	1.28	3.53	4.81		10.98	3.08		0			1.00		0.93		0.359	**Non-Liq.**	3.0	3.7			**0.00**
26.57	8.10	29.00	0.66	2.29	2.78	115	1.528	1.528	0.936	2.41	0.81	0.74	19.28	2.34	1.91	4.26		20.36	2.71		0			1.00		0.93		0.359	**Non-Liq.**	3.7	5.5			**0.00**
27.07	8.25	35.23	0.83	2.34	3.37	115	1.556	1.556	0.934	2.45	0.79	0.74	23.46	2.86	1.97	4.83		24.55	2.65		0			1.00		0.93		0.358	**Non-Liq.**	3.8	6.4			**0.00**
27.56	8.40	41.01	0.94	2.28	3.93	115	1.585	1.585	0.932	2.38	0.77	0.73	27.28	4.21	1.91	6.12		35.88	2.59		0			1.26		0.92		0.357	**Non-Liq.**	3.9	9.1			**0.00**
28.05	8.55	30.13	0.90	2.98	2.89	115	1.613	1.613	0.930	3.14	0.83	0.70	19.00	2.41	2.64	5.06		20.08	2.78		0			1.00		0.92		0.356	**Non-Liq.**	3.5	5.7			**0.00**
28.54	8.70	38.83	0.75	1.94	3.72	115	1.641	1.641	0.928	2.02	0.77	0.71	25.10	3.88	1.53	5.41		33.14	2.57		0			1.26		0.92		0.355	**Non-Liq.**	4.0	8.4			**0.00**
29.04	8.85	116.81	0.97	0.83	11.19	115	1.670	1.670	0.925	0.84	0.58	0.77	83.45	11.66	0.35	12.01	1.03	107.05	1.93		1	80	1.21	1.26	130.1	0.83	0.285	0.354	**Non-Liq.**	5.2	20.5	5.0	25.5	**0.21**
29.53	9.00	77.02	1.21	1.57	7.38	115	1.698	1.698	0.923	1.60	0.68	0.73	51.66	7.80	1.14	8.94		66.79	2.26		0			1.26		0.91		0.354	**Non-Liq.**	4.6	14.6			**0.00**
30.02	9.15	30.03	1.11	3.70	2.88	115	1.726	1.726	0.920	3.93	0.85	0.66	17.63	2.36	3.41	5.77		18.71	2.87		0			1.00		0.91		0.353	**Non-Liq.**	3.4	5.5			**0.00**
30.51	9.30	17.47	0.89	5.09	1.67	115	1.754	1.754	0.918	5.66	0.94	0.62	9.22	1.32	4.78	6.10		10.25	3.19		0			1.00		0.90		0.352	**Non-Liq.**	2.8	3.7			**0.00**
31.00	9.45	36.13	0.72	2.00	3.46	115	1.783	1.783	0.915	2.10	0.78	0.66	21.57	2.74	1.59	4.34		22.69	2.63		0			1.00		0.90		0.351	**Non-Liq.**	3.8	5.9			**0.00**
31.50	9.60	77.99	0.89	1.14	7.47	115	1.811	1.811	0.913	1.16	0.65	0.70	50.65	8.38	0.67	9.06		72.95	2.18		0			1.41		0.90		0.350	**Non-Liq.**	4.7	15.4			**0.00**
31.99	9.75	55.56	1.10	1.98	5.32	115	1.839	1.839	0.910	2.05	0.74	0.67	33.79	6.04	1.57	7.61		49.17	2.47		0			1.41		0.90		0.349	**Non-Liq.**	4.2	11.8			**0.00**
32.48	9.90	41.44	1.04	2.50	3.97	115	1.868	1.868	0.907	2.62	0.79	0.64	23.89	3.17	2.12	5.28		25.02	2.66		0			1.00		0.89		0.347	**Non-Liq.**	3.8	6.6			**0.00**
32.97	10.05	52.86	0.98	1.85	5.06	115	1.896	1.896	0.904	1.92	0.74	0.65	31.32	5.63	1.42	7.06		45.70	2.48		0			1.41		0.89		0.346	**Non-Liq.**	4.1	11.0			**0.00**
33.46	10.20	32.15	0.86	2.68	3.08	115	1.924	1.924	0.901	2.85	0.82	0.61	17.45	2.39	2.30	4.69		18.56	2.79		0			1.00		0.89		0.345	**Non-Liq.**	3.5	5.2			**0.00**
33.96	10.35	36.54	0.70	1.92	3.50	115	1.953	1.953	0.898	2.03	0.78	0.62	20.22	2.66	1.50	4.16		21.36	2.65		0			1.00		0.88		0.344	**Non-Liq.**	3.8	5.6			**0.00**
34.45	10.50	46.67	0.80	1.71	4.47	115	1.981	1.981	0.894	1.79	0.75	0.63	26.42	3.94	1.27	5.21		31.80	2.52		0			1.15		0.88		0.343	**Non-Liq.**	4.1	7.8			**0.00**
34.94	10.65	33.46	0.95	2.85	3.20	115	2.009	2.009	0.891	3.03	0.83	0.59	17.49	2.46	2.47	4.93		18.60	2.80		0			1.00		0.88		0.341	**Non-Liq.**	3.5	5.3			**0.00**
35.43	10.80	47.69	1.01	2.12	4.57	115	2.037	2.037	0.888	2.21	0.76	0.61	26.15	4.05	1.70	5.75		31.48	2.58		0			1.15		0.88		0.340	**Non-Liq.**	3.9	8.0			**0.00**
35.93	10.95	87.68	1.13	1.29	8.40	115	2.066	2.066	0.884	1.32	0.66	0.64	52.07	7.45	0.82	8.28	1.11	61.46	2.21		1	57	1.68	1.15	103.4	0.82	0.183	0.339	**Non-Liq.**	4.7	13.1	5.0	18.1	**0.44**
36.42	11.10	89.66	1.51	1.68	8.59	115	2.094	2.094	0.880	1.72	0.68	0.63	52.04	7.77	1.24	9.01	1.16	61.42	2.28		1	57	1.88	1.15	115.8	0.81	0.224	0.337	**Non-Liq.**	4.5	13.5	5.0	18.5	**0.41**
36.91	11.25	75.17	1.69	2.24	7.20	115	2.122	2.122	0.877	2.31	0.72	0.60	41.74	6.55	1.82	8.38		49.50	2.43		0			1.15		0.87		0.336	**Non-Liq.**	4.2	11.7			**0.00**
37.40	11.40	42.69	1.43	3.34	4.09	115	2.151	2.151	0.873	3.52	0.82	0.56	21.45	3.16	2.96	6.13		22.59	2.77		0			1.00		0.87		0.334	**Non-Liq.**	3.6	6.3			**0.00**
37.89	11.55	24.93	1.13	4.55	2.39	115	2.179	2.179	0.869	4.98	0.91	0.52	11.18	1.78	4.22	5.99		12.25	3.09		0			1.00		0.87		0.333	**Non-Liq.**	3.0	4.1			**0.00**
38.39	11.70	91.24	0.85	0.93	8.74	115	2.207	2.207	0.865	0.95	0.63	0.63	52.82	8.04	0.45	8.49		68.45	2.12		0			1.26		0.86		0.331	**Non-Liq.**	4.8	14.1			**0.00**
38.88	11.85	51.62	0.65	1.26	4.94	115	2.235	2.235	0.861	1.32	0.72	0.58	27.22	4.45	0.79	5.24		35.97	2.44		0			1.26		0.86		0.330	**Non-Liq.**	4.2	8.5			**0.00**
39.37	12.00	23.83	0.72	3.04	2.28	115	2.264	2.264	0.857	3.36	0.88	0.51	10.43	1.61	2.63	4.24		11.53	3.01		0			1.00		0.86		0.328	**Non-Liq.**	3.1	3.7			**0.00**
39.86	12.15	61.83	1.00	1.61	5.92	115	2.292	2.292	0.852	1.67	0.72	0.57	32.23	5.49	1.15	6.64		42.32	2.44		0			1.26		0.86		0.326	**Non-Liq.**	4.2	10.0			**0.00**
40.35	12.30	82.03	1.50	1.83	7.86	115	2.320	2.320	0.848	1.88	0.70	0.58	43.43	7.52	1.37	8.90	1.18	56.51	2.36		1	53	2.17	1.26	122.8	0.79	0.252	0.325	**Non-Liq.**	4.4	12.9	5.0	17.9	**0.41**
40.85	12.45	69.21	1.81	2.61	6.63	115	2.349	2.349	0.843	2.70	0.75	0.55	34.74	6.44	2.17	8.61		45.47	2.54		0			1.26		0.85		0.323	**Non-Liq.**	4.0	11.3			**0.00**
41.34	12.60	36.12	1.51	4.19	3.46	115	2.377	2.377	0.839	4.48	0.86	0.50	15.88	2.58	3.79	6.38		17.00	2.94		0			1.00		0.85		0.321	**Non-Liq.**	3.2	5.2			**0.00**
41.83	12.75	29.94	1.17	3.90	2.87	115	2.405	2.405	0.834	4.24	0.88	0.49	12.66	2.07	3.49	5.56		13.77	3.00		0			1.00		0.85		0.320	**Non-Liq.**	3.1	4.4			**0.00**
42.32	12.90	25.81	1.04	4.03	2.47	115	2.434	2.434	0.830	4.45	0.90	0.47	10.45	1.75	3.62	5.37		11.54	3.08		0			1.00		0.85		0.318	**Non-Liq.**	3.0	3.9			**0.00**
42.81	13.05	38.11	1.08	2.85	3.65	115	2.462	2.462	0.825	3.04	0.83	0.50	16.79	2.62	2.40	5.01		17.94	2.82		0			1.00		0.84		0.316	**Non-Liq.**	3.5	5.2			**0.00**
43.31	13.20	24.05	1.01	4.20	2.30	115	2.490	2.490	0.820	4.68	0.91	0.46	9.33	1.60	3.77	5.38		10.41	3.13		0			1.00		0.84		0.314	**Non-Liq.**	2.9	3.6			**0.00**
43.80	13.35	33.16	0.95	2.86	3.18	115	2.518	2.518	0.816	3.10	0.84	0.48	13.94	2.22	2.41	4.63		15.08	2.89		0			1.00		0.84		0.312	**Non-Liq.**	3.3	4.5			**0.00**
44.29	13.50	27.39	1.03	3.74	2.62	115	2.547	2.547	0.811	4.13	0.89	0.46	10.76	1.82	3.30	5.12		11.86	3.05		0			1.00		0.84		0.311	**Non-Liq.**	3.0	3.9			**0.00**
44.78	13.65	53.61	1.23	2.29	5.13	115	2.575	2.575	0.806	2.41	0.77	0.50	24.28	3.68	1.82	5.50		25.50	2.63		0			1.00		0.84		0.309	**Non-Liq.**	3.9	6.6			**0.00**
45.28	13.80	78.24	1.68	2.14	7.49	115	2.603	2.603	0.801	2.22	0.73	0.52	37.18	5.91	1.66	7.57		41.20	2.46		0			1.07		0.84		0.307	**Non-Liq.**	4.2	9.9			**0.00**
45.77	13.95	106.38	2.08	1.96	10.19	115	2.632	2.632	0.796	2.01	0.69	0.53	52.42	8.14	1.47	9.61	1.18	57.58	2.32		1	54	2.01	1.07	116.0	0.76	0.225	0.305	**Non-Liq.**	4.5	12.9	5.0	17.9	**0.37**
46.26	14.10	114.94	2.46	2.14	11.01	115	2.660	2.660	0.791	2.20	0.69	0.53	56.27	8.91	1.65	10.56	1.19	61.71	2.32		1	57	2.02	1.07	124.9	0.76	0.261	0.303	**Non-Liq.**	4.5	13.9	5.0	18.9	**0.32**
46.75	14.25	102.58	2.62	2.55	9.82	115	2.688	2.688	0.786	2.62	0.72	0.51	48.44	7.99	2.06	10.04	1.26	53.29	2.42		1	51	2.41	1.07	128.3	0.76	0.276	0.301	**Non-Liq.**	4.3	12.5	5.0	17.5	**0.37**
47.24	14.40	83.13	2.39	2.87	7.96	130	2.720	2.720	0.781	2.97	0.75	0.49	37.50	5.98	2.37	8.35		38.77	2.54		0			1.00		0.83		0.299	**Non-Liq.**	4.0	9.6			**0.00**
47.74	14.55	55.28	1.81	3.27	5.29	130	2.752	2.752	0.776	3.44	0.80	0.46	23.05	3.85	2.76	6.62		24.26	2.74		0			1.00		0.83		0.297	**Non-Liq.**	3.6	6.7			**0.00**
48.23	14.70	56.27	1.33	2.36	5.39	130	2.784	2.784	0.771	2.48	0.77	0.47	23.92	3.79	1.85	5.64		25.16	2.64		0			1.00		0.82		0.295	**Non-Liq.**	3.8	6.6			**0.00**
48.72	14.85	35.91	1.10	3.07	3.44	130	2.816	2.816	0.766	3.33	0.85	0.44	13.65	2.34	2.56	4.90		14.81	2.91		0			1.00		0.82		0.293	**Non-Liq.**	3.3	4.5			**0.00**
49.21	15.00	34.92	0.93	2.67	3.34	130	2.848	2.848	0.761	2.91	0.84	0.44	13.19	2.22	2.15	4.37		14.37	2.89		0			1.00		0.82		0.291	**Non-Liq.**	3.3	4.3			**0.00**
49.70	15.15	43.22	1.05	2.44	4.14	130	2.880	2.880	0.756	2.61	0.81	0.45	16.97	2.79	1.92	4.70		18.19	2.77		0			1.00		0.82		0.289	**Non-Liq.**	3.6	5.1			**0.00**

APPENDIX F

Infiltration Testing Results

INFILTRATION RATE BY THE BOREHOLE PERCOLATION TEST METHOD

This workbook calculates an adjusted infiltration rate from a borehole percolation test. The percolation rate is adjusted for sidewall area according to the Porchet method, and then re-adjusted for the effect of the gravel placed in annulus between the borehole wall and a pipe placed in the borehole by a method presented in Caltrans Test 750.

Project Name	Somis Ranch Farmworker Housing
Project Number	302947-001
Test Hole No.	IT-1
Tester	SC
Pre-Soak Date	
Test Date	7-5-15

Test Hole Radius, r (inches)	4
Total Depth of Test Hole, D_T (feet)	4.0
Inside Diameter of Pipe, I (inches)	3.00
Outside Diameter of Pipe, O (inches)	3.25
Pipe Stick-Up (feet)	0.4
Porosity of Gravel, n	0.41
Porosity Correction Factor, C	0.48
Factor of Safety (FOS), F	N/A

Interval No.	Delta Time, Δt (min.)	Initial Depth to Water from TOP, D_o (ft.)	Final Depth to Water from TOP, D_f (ft.)	Initial Water Height, H_o (in.)	Final Water Height, H_f (in.)	Change in Water Height, ΔH (in.)	Perc Rate, (in/hr)	Infiltration Rate (in./hr.)	Corrected Infiltration Rate (in/hr)
1	30.00	2.11	2.14	26.88	26.52	0.36	0.72	0.05	0.02
2	30.00	2.14	2.16	26.52	26.28	0.24	0.48	0.03	0.02
3	30.00	2.16	2.17	26.28	26.16	0.12	0.24	0.02	0.01
4	30.00	2.17	2.18	26.16	26.04	0.12	0.24	0.02	0.01
5	30.00	2.18	2.19	26.04	25.92	0.12	0.24	0.02	0.01
6	30.00	2.19	2.20	25.92	25.80	0.12	0.24	0.02	0.01
7	30.00	2.20	2.23	25.80	25.44	0.36	0.72	0.05	0.03
8	30.00	2.23	2.25	25.44	25.20	0.24	0.48	0.04	0.02
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INFILTRATION RATE BY THE BOREHOLE PERCOLATION TEST METHOD

This workbook calculates an adjusted infiltration rate from a borehole percolation test. The percolation rate is adjusted for sidewall area according to the Porchet method, and then re-adjusted for the effect of the gravel placed in annulus between the borehole wall and a pipe placed in the borehole by a method presented in Caltrans Test 750.

Project Name	Somis Ranch Farmworker Housing
Project Number	302947-001
Test Hole No.	IT-2
Tester	SC
Pre-Soak Date	
Test Date	7-5-15

Test Hole Radius, r (inches)	4
Total Depth of Test Hole, D_T (feet)	15.0
Inside Diameter of Pipe, I (inches)	3.00
Outside Diameter of Pipe, O (inches)	3.25
Pipe Stick-Up (feet)	0.0
Porosity of Gravel, n	0.41
Porosity Correction Factor, C	0.48
Factor of Safety (FOS), F	N/A

Interval No.	Delta Time, Δt (min.)	Initial Depth to Water from TOP, D_o (ft.)	Final Depth to Water from TOP, D_f (ft.)	Initial Water Height, H_o (in.)	Final Water Height, H_f (in.)	Change in Water Height, ΔH (in.)	Perc Rate, (in/hr)	Infiltration Rate (in./hr.)	Corrected Infiltration Rate (in/hr)
1	30.00	12.26	12.34	32.88	31.92	0.96	1.92	0.11	0.05
2	30.00	12.34	12.37	31.92	31.56	0.36	0.72	0.04	0.02
3	30.00	12.37	12.40	31.56	31.20	0.36	0.72	0.04	0.02
4	30.00	12.30	12.34	32.40	31.92	0.48	0.96	0.06	0.03
5	30.00	12.34	12.38	31.92	31.44	0.48	0.96	0.06	0.03
6	30.00	12.23	12.27	33.24	32.76	0.48	0.96	0.05	0.03
7	30.00	12.27	12.33	32.76	32.04	0.72	1.44	0.08	0.04
8	30.00	12.33	12.36	32.04	31.68	0.36	0.72	0.04	0.02
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INFILTRATION RATE BY THE BOREHOLE PERCOLATION TEST METHOD

This workbook calculates an adjusted infiltration rate from a borehole percolation test. The percolation rate is adjusted for sidewall area according to the Porchet method, and then re-adjusted for the effect of the gravel placed in annulus between the borehole wall and a pipe placed in the borehole by a method presented in Caltrans Test 750.

Project Name	Somis Ranch Farmworker Housing
Project Number	302947-001
Test Hole No.	IT-3
Tester	SC
Pre-Soak Date	
Test Date	7-3-15

Test Hole Radius, r (inches)	4
Total Depth of Test Hole, D_T (feet)	7.0
Inside Diameter of Pipe, I (inches)	3.00
Outside Diameter of Pipe, O (inches)	3.25
Pipe Stick-Up (feet)	0.0
Porosity of Gravel, n	0.41
Porosity Correction Factor, C	0.48
Factor of Safety (FOS), F	N/A

Interval No.	Delta Time, Δt (min.)	Initial Depth to Water from TOP, D_o (ft.)	Final Depth to Water from TOP, D_f (ft.)	Initial Water Height, H_o (in.)	Final Water Height, H_f (in.)	Change in Water Height, ΔH (in.)	Perc Rate, (in/hr)	Infiltration Rate (in./hr.)	Corrected Infiltration Rate (in/hr)
1	30.00	5.87	6.00	13.56	12.00	1.56	3.12	0.42	0.20
2	30.00	6.00	6.10	12.00	10.80	1.20	2.40	0.36	0.17
3	30.00	6.03	6.15	11.64	10.20	1.44	2.88	0.45	0.22
4	30.00	6.02	6.16	11.76	10.08	1.68	3.36	0.52	0.25
5	30.00	6.00	6.11	12.00	10.68	1.32	2.64	0.40	0.19
6	30.00	5.98	6.10	12.24	10.80	1.44	2.88	0.43	0.21
7	30.00	6.00	6.12	12.00	10.56	1.44	2.88	0.43	0.21
8	30.00	6.00	6.13	12.00	10.44	1.56	3.12	0.47	0.23
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INFILTRATION RATE BY THE BOREHOLE PERCOLATION TEST METHOD

This workbook calculates an adjusted infiltration rate from a borehole percolation test. The percolation rate is adjusted for sidewall area according to the Porchet method, and then re-adjusted for the effect of the gravel placed in annulus between the borehole wall and a pipe placed in the borehole by a method presented in Caltrans Test 750.

Project Name	Somis Ranch Farmworker Housing
Project Number	302947-001
Test Hole No.	IT-4
Tester	SC
Pre-Soak Date	
Test Date	7-3-15

Test Hole Radius, r (inches)	4
Total Depth of Test Hole, D_T (feet)	18.0
Inside Diameter of Pipe, I (inches)	3.00
Outside Diameter of Pipe, O (inches)	3.25
Pipe Stick-Up (feet)	0.0
Porosity of Gravel, n	0.41
Porosity Correction Factor, C	0.48
Factor of Safety (FOS), F	N/A

Interval No.	Delta Time, Δt (min.)	Initial Depth to Water from TOP, D_o (ft.)	Final Depth to Water from TOP, D_f (ft.)	Initial Water Height, H_o (in.)	Final Water Height, H_f (in.)	Change in Water Height, ΔH (in.)	Perc Rate, (in/hr)	Infiltration Rate (in./hr.)	Corrected Infiltration Rate (in/hr)
1	30.00	16.05	16.06	23.40	23.28	0.12	0.24	0.02	0.01
2	30.00	16.06	16.08	23.28	23.04	0.24	0.48	0.04	0.02
3	30.00	16.08	16.12	23.04	22.56	0.48	0.96	0.08	0.04
4	30.00	16.12	16.26	22.56	20.88	1.68	3.36	0.28	0.14
5	30.00	16.26	16.41	20.88	19.08	1.80	3.60	0.33	0.16
6	30.00	16.01	16.14	23.88	22.32	1.56	3.12	0.25	0.12
7	30.00	16.00	16.09	24.00	22.92	1.08	2.16	0.17	0.08
8	30.00	15.99	16.12	24.12	22.56	1.56	3.12	0.25	0.12
9	30.00	15.95	16.07	24.60	23.16	1.44	2.88	0.22	0.11
10	30.00	15.98	16.12	24.24	22.56	1.68	3.36	0.26	0.13
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Appendix K

Domestic Water Use Calculations

JENSEN DESIGN & SURVEY, INC.

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PLA02.5893
October 29, 2019

SOMIS FARMWORKER HOUSING
DOMESTIC WATER USE CALCULATIONS

SOMIS RANCH- DOMESTIC WATER USE CALCULATIONS		
Number of Units	360.00	*persons*
Approximate of Residents	1215.00	*persons**
Gallons Per Day (Per Capita)	55.00	*gal*
Gallons Per Day (Total)	66825.00	*gal/day*
Gallons Per Year	**24391125.00**	***gal/year***
Cubic Feet Per Year	**3260409.70**	***CF/year***
Acre Feet Per Year	**74.85**	***AF/year***

**See Population Estimate Table Below*

POPULATION ESTIMATE TABLE

UNIT TYPE	# OF UNITS	AV. PERSONS PER UNIT	TOTAL
1 Bedroom	90	2	180
2 Bedroom	180	3.5	630
3 Bedroom	90	4.5	405
		GRAND TOTAL:	**1215**

On May 31, 2018, Governor Edmund G. Brown signed into SB 606 and AB 1668, two water laws which emphasize efficiency and stretching existing water supplies statewide. As part of these pieces of legislation, the State Water Board established a new indoor water use standard of 55 gallons per person per day until January 2025, with the standard becoming stronger over time[1]. This standard has been used to generate daily per capita water usage above.

[1] "Water Efficiency Legislation Fact Sheet." *California State Water Resources Control Board*, State of California, 2018, www.waterboards.ca.gov/publications_forms/publications/factsheets/docs/water_efficiency_bill_factsheet.pdf.

Appendix L

AB 52 Correspondence

Ms. Julie Tumamait-Stenslie
Barbareno-Ventureno Mission Indians
365 North Poli Avenue
Ojai, CA 93023

Subject: Request for Review of New Project Application
Somis Ranch Farmworker Housing Case No. PL19-0046
2789 Somis Road, Somis CA 93066
Assessor's Parcel Number: 156-0-180-285

Dear Ms. Tumamait-Stenslie,

The Planning Division has received the following new land use project application:

Somis Ranch Partners, LLC. Together with associated non-profit affordable housing developers, is proposing to construct a 360-unit farmworker housing complex on an approximately 18.4-acre portion of APN 156-0-180-285. The proposed farmworker community is intended to be 100% affordable to farm workers who qualify as lower income, which is classified as individuals and families who make 80% of area median income and below. The project site is located on Somis Road, immediately north of and adjacent to the Camarillo City limits. Although the project site is immediately next to the City of Camarillo, it is located outside of the City's sphere of influence and CURB. Enclosed for your review are the following documents:

- Project Plans
- Aerial Map

Please review the project application materials included with this request, and provide information regarding the following:

- Concerns you may have about the proposed project; and/or
- Requirements or standards you may recommend that the County impose.

Provide any comments or questions to me no later than July 21, 2020. If you have questions or need additional time to review the project, please contact me at justin.bertoline@ventura.org, or (805) 654-2466 prior to the requested response date. The Planning Division will consider a non-response to this letter as an indication that the agency you represent does not wish to comment on the proposed development at this time. Please contact me if you wish to be sent copies of formal correspondence regarding the project, a notice informing you of the opportunity to comment on the draft environmental document for this project, and/or a notice of the public hearing.

Sincerely,

Justin Bertoline, Senior Planner
Commercial & Industrial Permits Section
Ventura County Planning Division

Encl.: Project Application Materials

RESOLUTION NO. 21-004

Somis Ranch Farmworker Housing Project
Case No. PL19-0046

CEQA Findings and Certification of Final Environmental Impact Report

RESOLUTION OF THE VENTURA COUNTY BOARD OF SUPERVISORS MAKING REQUIRED CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS TO CERTIFY THE FINAL ENVIRONMENTAL IMPACT REPORT AND APPROVE THE PROJECT

WHEREAS, the Somis Ranch Farmworker Housing Project (Case No. PL19-0046) constitutes a project under the California Environmental Quality Act ("CEQA"; Public Resources Code (PRC), §21000 et seq.) and CEQA Guidelines (California Code of Regulations, tit. 14, §15000 et seq.);

WHEREAS, the County of Ventura ("County"), based on all available information in the record, determined that the Somis Ranch Farmworker Housing Project, Planning Division Case No. PL19-0046 ("Project") has the potential to cause a significant effect on the environment and that an environmental impact report ("EIR") is required for the Project;

WHEREAS, the County prepared a Notice of Preparation ("NOP") for an EIR for the Project on April 13, 2020 and distributed the NOP to the State Clearinghouse, Office of Planning and Research, responsible agencies, and other interested parties, in compliance with CEQA and the CEQA Guidelines;

WHEREAS, upon receipt of the NOP, the State Clearinghouse issued SCH Number 2020049020 for the EIR;

WHEREAS, the NOP was circulated for a public review period that began April 13, 2020 and ended May 13, 2020;

WHEREAS, the County provided public notice and conducted a scoping meeting on April 22, 2020, pursuant to CEQA Guidelines section 15082(c), and public testimony was taken concerning the potential environmental impacts of the proposed Project in order to help determine the scope and contents of the EIR;

WHEREAS, the County reviewed and considered the written and oral comments received in response to the NOP and during the public scoping meeting, and subsequently published a Notice of Availability ("NOA") for a Draft EIR ("DEIR") for the Project on September 21, 2020;

WHEREAS, the County made the DEIR available for public review and comment from September 21, 2020 through November 5, 2020;

WHEREAS, the County prepared a Final EIR ("FEIR") for the Project and made it available for public review on the County Planning Division's publicly accessible internet website on January 4, 2021, which included responses to all comments received during the review period for the DEIR;

WHEREAS, the County published a notice in the *Ventura County Star* daily newspaper on January 4, 2021, advising the general public of the Planning Commission's consideration of the proposed Project at its January 14, 2021 meeting for making recommendations to the Board of Supervisors for its consideration at the February 2, 2021 hearing;

WHEREAS, on December 30, 2020 the County mailed a Notice of Public Hearing regarding the Planning Commission hearing on the FEIR and proposed Project to owners of property within 300 feet of the property on which the Project site is located and placed a legal ad in the *Ventura County Star*. In addition, State and Federal wildlife agencies, Caltrans, responsible agencies, and each person who commented on the DEIR were noticed. Thus, all affected parties were notified of a January 14, 2021 public meeting of the Planning Commission, at which time evidence, both oral and written, including the FEIR, and the staff report, was presented and received and testimony was heard from all interested parties appearing on the matter;

WHEREAS, on January 14, 2021, the Planning Commission held the duly noticed public hearing regarding the FEIR and proposed Project at the Ventura County Government Center, Hall of Administration, Board Hearing Room, 800 South Victoria Avenue, Ventura, California;

WHEREAS, copies of the notices and affidavits of mailing, posting and publishing are on file in the office of the Ventura County Resource Management Agency, Planning Division;

WHEREAS, on January 14, 2021, the Planning Commission recommended that the Board of Supervisors find the FEIR to be adequate under CEQA and further recommended approval of the proposed Project as discussed in the Planning Division staff report for the Planning Commission and in these CEQA findings;

WHEREAS, the County published a notice in the *Ventura County Star* daily newspaper on January 23, 2021, advising the general public of the Board of Supervisors' ("Board") consideration of the proposed Project and the adequacy of the FEIR at its February 2, 2021 meeting;

WHEREAS, on January 19, 2021, the County mailed a Notice of Public Hearing regarding the Board hearing on the FEIR and proposed Project to owners of property

within 300 feet of the property on which the Project site is located and placed a legal ad in the *Ventura County Star*. In addition, State and Federal wildlife agencies, Caltrans, responsible agencies, and each person who commented on the DEIR were noticed. Thus, all affected parties were notified of a February 2, 2021 public meeting of the Board of Supervisors, at which time evidence, both oral and written, including the FEIR, and the Board Agenda Letter prepared by County staff, was presented and received and testimony was heard from all interested parties appearing on the matter;

WHEREAS, on February 2, 2021, the Board held the duly noticed public hearing regarding the FEIR and proposed Project at the Ventura County Government Center, Hall of Administration, Board Hearing Room, 800 South Victoria Avenue, Ventura, California; and

WHEREAS, copies of the notices and affidavits of mailing, posting and publishing are on file in the office of the Ventura County Resource Management Agency, Planning Division;

NOW, THEREFORE, BE IT RESOLVED that the Board independently reviewed and considered the information contained in the FEIR and supporting documents, including all maps, exhibits, testimony and written documents contained in the administrative record for the Project, including its environmental analysis for the Project on record, and the oral presentations given at the public hearing, and hereby finds that:

1. The FEIR has been completed in compliance with CEQA and the CEQA Guidelines.

2. The FEIR was presented to the Board and was reviewed and considered prior to approving the Project.

3. The FEIR reflects the Board of Supervisors' independent judgment and analysis, constitutes adequate environmental review, and has been prepared in conformance with CEQA and the CEQA Guidelines.

4. The documents comprising the FEIR, as well as all other documents contained within the administrative record of proceedings, are held with the Clerk of the Board of Supervisors, as the official custodian of the record, 800 S. Victoria Street, Ventura, California 93009.

BE IT FURTHER RESOLVED that the Board hereby approves and certifies the FEIR as adequate and adopts the following findings pursuant to Public Resources Code section 21081 and the CEQA Guidelines sections 15043, 15090, 15091, 15092, and 15093, with respect to the environmental impacts of the Project as identified in the FEIR:

SECTION 1: GENERAL CEQA CONSIDERATIONS

A. **FEIR Organization:** The FEIR is one document comprised of the FEIR text and the attached Appendices A through L. The FEIR text includes a description of the Project, an evaluation of the environmental effects that would result from Project implementation, mitigation measures, and alternatives to the Project. The Appendices of the FEIR include the NOP, NOP comment letters received during the public review period, preliminary design documents for the Wastewater Treatment Plant, various technical studies, written comments on the Draft EIR and responses to those comments, and correspondence regarding compliance with AB 52 requirements pertaining to cultural resources. The Mitigation Monitoring and Reporting Program for the Project is incorporated into the conditions of approval for the Project's Planned Development Permit and Conditional Use Permit ("PD/CUP") and are adequate for adoption by the Board pursuant to CEQA Guidelines section 15097.

B. **Reliance on the Administrative Record:** The findings contained herein are based on the competent and substantial evidence, both oral and written, contained in the entire administrative record before the Board relating to the FEIR and the Project. The findings constitute the independent findings of the Board in all respects and are fully and completely supported by substantial evidence in the record as a whole.

C. **Nature of the Findings:** The findings contained herein are each part of an integrated whole and, whether or not any of these findings cross reference or incorporate by reference any other part of these findings, any finding required to be made by the Board with respect to any particular subject matter of the FEIR shall be deemed to be made if it appears in any portion of these findings.

For each significant environmental effect identified in an environmental impact report prepared for a proposed project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. The three possible findings are:

(1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the FEIR. (CEQA Guidelines § 15091(a)(1)).

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency. (CEQA Guidelines § 15091(a)(2)).

(3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the FEIR. (CEQA Guidelines § 15091(a)(3)).

CEQA Guidelines section 15364 defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

The concept of "feasibility" also encompasses the question of whether a particular project alternative or mitigation measure promotes the underlying goals and objectives of a project. "'[F]easibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors." (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417; see also *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001.)

For a project with significant environmental impacts which are not avoided or substantially lessened, a public agency, after adopting required findings, may still approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." (PRC §21081(b); CEQA Guidelines §§15043(b) and 15093.) "The wisdom of approving ...any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions." (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 576.)

D. **Limitations:** The Board's evaluation of the FEIR and Project are based on the best information currently available and feasible. In evaluating any project, absolute and exhaustive knowledge of all possible environmental impacts of the project does not always exist. CEQA does not require lead agencies to engage in speculation. This practical limitation is acknowledged in the CEQA Guidelines section 15151, which states that "the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible."

E. **Summaries of Impacts, Facts, Mitigation Measures, and Project Alternatives:** All summaries of information in the findings to follow are based on the FEIR or other evidence in the administrative record before the Board. The absence of any particular fact from any such summary is not an indication that a particular finding is not based in part on that fact or substantial evidence in the record.

SECTION 2: ENVIRONMENTAL EFFECTS FOUND TO HAVE NO IMPACTS OR TO BE LESS-THAN-SIGNIFICANT

Finding: The Board finds that the environmental issues identified in Table 1 (below) either involve no impact or impacts that are less than significant and, therefore, that no mitigation measures beyond those features included as part of the Project description are required to address the issues:

Table 1 – No or Less-than-Significant Project-Specific and Cumulative Impacts Without Mitigation Beyond the Project Description

Potential impact identified and evaluated in the FEIR	No Impact or Less-Than-Significant Project-Specific Impact?*	No Impact or Less-Than-Significant Cumulative Impact?
Air Quality impacts AQ-2, AQ-3, AQ-4, AQ-5	Yes	Yes
Agricultural Resources-Soils impacts AG-2, AG-3	Yes	Yes
Biological Resources impacts BIO-1, BIO-2, BIO-4, BIO-5	Yes	Yes
Cultural Resources-Historic impacts CUL-1, CUL-2	Yes	Yes
Noise and Vibration impacts N-1, N 2, N-3	Yes	Yes
Public Health impacts PS-1, PS-2,	Yes	Yes
Transportation impacts T-1, T-2, T-3, T-4, T-5	Yes	Yes
Waste Treatment & Disposal impacts W-1, W-2	Yes	Yes
Water Resources impacts WR-1, WR-2, WR-3	Yes	Yes
Land Use and Planning impacts LU-1, LU-2, LU-3, LU-4, LU-5, LU-6, LU-7LU-8, LU-9, LU-10	Yes	Yes

SECTION 3: FINDINGS OF LESS-THAN-SIGNIFICANT ENVIRONMENTAL IMPACTS AFTER MITIGATION MEASURES HAVE BEEN IMPLEMENTED [CEQA GUIDELINES §15091(a)(1)]

Of the potentially significant impact categories addressed in the FEIR, mitigation measures have been required which avoid or substantially lessen the significant adverse environmental effects as identified in the FEIR in the issue areas of air quality and biological resources. These mitigation measures are within the County's authority to implement and they reduce these impacts to less-than-significant levels, as set forth below:

A. Impacts on Air Quality

Project-Specific Impact AQ-1 (Project Construction Emissions) (FEIR Section 4.1): The impacts of the Project on air quality are discussed in the FEIR on pages 4.1-1 through 4.1-20 and in the comments and responses to comments included in the FEIR appendices. Without mitigation, the Project could result in the following potentially significant impacts on air quality:

Project-specific emissions during construction would exceed 25 pounds per day of ROC and NOx.

In summary, the Project would result in potentially significant project-specific and cumulative impacts on air quality during construction.

Mitigation Measures: The FEIR concluded that the project-specific and cumulative impact could be feasibly mitigated by implementation of Mitigation Measures AQ-1, which requires the following:

- *Minimize equipment idling time.*
- *Maintain equipment engines in good condition and in proper tune as per manufacturers' specifications.*
- *Lengthen the construction period during smog season (May through October) to minimize the number of vehicles and equipment operating at the same time.*
- *Use alternatively fueled construction equipment, such as compressed natural gas, liquefied natural gas, or electric, if feasible.*
- *In addition, per recent VCAPCD guidance on other projects, project construction shall use Tier 3 or above construction equipment for all off-road diesel equipment that has greater than 50 horsepower. A copy of each unit's certified tier specification shall be provided at the time of mobilization of each applicable unit of equipment.*

Finding: The Board finds that the implementation of Mitigation Measure AQ-1, which is being imposed on the Project as a mandatory condition of approval of the PD/CUP, will avoid or substantially lessen the significant project-specific impacts, as well as the Project's contribution to cumulative impacts, on air quality as identified in the FEIR. Residual impacts will be less than significant.

B. Impacts on Biological Resources

Project-Specific impact BIO-3 (FEIR Section 4.3): The impacts of the Project on biological resources are discussed in the FEIR on pages 4.3-1 through 4.3-20 and in the comments and responses to comments included in the FEIR appendices. Without mitigation, the Project could have the following potentially significant impact on biological resources:

Disturbance of waters and wetlands within US Army Corps of Engineers jurisdiction.

In summary, the Project would result in a potentially significant project-specific impact on biological resources.

Mitigation Measures: The FEIR concluded that the above-listed impact could be feasibly mitigated by implementation of Mitigation Measures BIO-3 as described below.

BIO-3: Jurisdictional Waters Mitigation Plan

The project applicant shall restore herbaceous wetland communities temporarily impacted by project activities, including Giant Scouring Rush and Bermuda Grass – Italian Wild Rye plant communities, at a minimum 1:1 mitigation to impact ratio (estimated at 0.09 acre total based on current design). The project applicant shall contract with a County-approved qualified biologist to prepare a Mitigation Plan that must include restoring these impacted communities occurring in the wetland features within the construction footprint. Planting palettes shall approximate existing species composition, except that non-native species such as Bermuda grass shall not be planted. The Mitigation Plan shall include, but not be limited to, the following components:

- *A description of the purpose and goals of the mitigation plan, including the improvement of specific physical, chemical, and/or biological functions at the mitigation site.*
- *A description of the plant community type(s) and amount(s) that shall be provided by the mitigation and how the mitigation method shall achieve the mitigation project goals.*
- *A plant palette and methods of salvaging, propagating, and planting the site to be restored.*
- *Methods of soil preparation.*
- *Method and timing of irrigation.*
- *Best Management Practices (BMPs) that shall be utilized to avoid erosion and excessive runoff before plant establishment.*
- *Maintenance and monitoring necessary to ensure that the restored plant communities meet the success criteria.*

- *Schedule for restoration activities, including weed abatement, propagating and planting, soil preparation, irrigation, erosion control, qualitative and quantitative monitoring, and reporting to the County.*
- *Identification of measurable performance standards for each objective to evaluate the success of the compensatory mitigation.*
- *Identification of contingency and adaptive management measures to address unforeseen changes in site conditions or other components of the mitigation project.*

The Jurisdictional Waters Mitigation Plan shall provide for monitoring to be conducted for five years or until the performance criteria are met, whichever occurs sooner. The success criteria are as follows:

- *The mitigation site shall attain a native percent cover that reflects that of the target communities occurring in unimpacted reference sites;*
- *Non-native species shall comprise less than five percent cover and zero percent cover of species listed as "High" on the California Invasive Plant Council's Invasive Plant Inventory Database (or its successor); and*
- *Irrigation of the native plantings shall cease no later than the end of the third year of restoration monitoring.*

In addition, applicable permits shall be obtained from the appropriate federal, state and local agencies for work within Grove's Place Drain (W1) prior to project initiation. Conditions in these permits may augment or supersede Mitigation Measure BIO-3, if more stringent.

Finding: The Board finds that implementation of Mitigation Measure BIO-3, which is being imposed on the Project as a mandatory condition of approval of the PD/CUP, will avoid or substantially lessen the significant biological resource impact identified in the FEIR. Residual impacts will be less than significant.

SECTION 4: SIGNIFICANT IMPACTS IDENTIFIED IN FEIR, INCLUDING AFTER ADOPTION OF ALL FEASIBLE MITIGATION MEASURES [CEQA GUIDELINES, §15091(a)(3)]

A. Impacts on Agricultural Resources - Soils

Impact AG-1: Loss of Agricultural Soils (FEIR Section 4.2): The impacts of the Project on agricultural resources are discussed on pages 4.2-1 through 4.2-8 of the FEIR and in the comments and responses to comments included in FEIR appendices. The Project would have the following significant impact on agricultural resources:

The project would result in the direct loss of 18.2 acres of Prime Farmland or Farmland of Statewide Importance. This would exceed the County's established 5-acre threshold of significance for loss of Prime Farmland or Farmland of Statewide Importance and result in the permanent loss of this valuable resource.

In summary, the Project would result in a significant impact on agricultural resources.

Mitigation Measures: The FEIR does not identify any feasible mitigation measures for the loss of 18.2 acres of farmland and concludes that this impact is significant and unavoidable.

Findings: The Board agrees with the conclusion of the FEIR that finds that the identified impact on agricultural resources is significant and unavoidable. The Board further finds that none of the project alternatives, except for the No Project alternative, would lessen this impact to an insignificant level. The Board finds that the significant impact on agricultural resources is made acceptable and is outweighed by the specific overriding economic, legal, social, technological or other benefits, including region-wide or statewide environmental benefits, discussed in the Statement of Overriding Considerations (Exhibit 5 of the Board Agenda Letter for the February 2, 2021 hearing).

D. Irreversible Environmental Effects (FEIR Section 5.2)

The CEQA Guidelines require that EIRs contain a discussion of significant irreversible environmental changes.

As discussed in the FEIR on page 5-2, the proposed project would include development on a portion of a mostly undeveloped project site in unincorporated Ventura County. Construction and operation of the Project would involve an irreversible commitment of construction materials and non-renewable energy resources. Consumption of these resources would occur with any development in the region and are not unique to the proposed Project.

The proposed Project would also irreversibly increase local demand for non-renewable energy resources such as petroleum products. The Project would also increase demand for water supply and the need for wastewater disposal and treatment. Again, consumption of these resources would occur with any similar development in the region and is not unique to the proposed Project.

Although the conversion of agricultural resources is not technically irreversible, it is irreversible for practical purposes. The analysis contained in the FEIR concludes that the proposed Project would result in a significant and unavoidable impact on agricultural soils. This significant impact is addressed in the Statement

of Overriding Considerations (Exhibit 5 of the February 2, 2021 Board Agenda Letter.)

SECTION 5: SUMMARY OF PROJECT ALTERNATIVES [CEQA GUIDELINES §15091(a)(3)]

Although an EIR must evaluate a reasonable range of potentially feasible alternatives, an agency decision-making body may ultimately conclude that a potentially feasible alternative is *actually* infeasible (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 999). Grounds for such a conclusion may be the failure of a project alternative to satisfy a basic fundamental project objective or objectives deemed important by the lead agency decision-makers, or the fact that an alternative project fails to promote important policy objectives of such decision-makers. (*Id.* at pp. 992, 1000-1003). Thus, even if a project alternative will avoid or substantially lessen any of the significant environmental effects of a proposed project as mitigated, the decision-makers may reject the project alternative for such policy reasons. (See Section 1.C., "Nature of Findings," at p. 5 above).

Under CEQA Guidelines section 15126.6, the project alternatives to be discussed in detail in an environmental impact report should be able to "feasibly attain most of the basic objectives of the project[.]" For this reason, the Project Objectives identified in the FEIR provided the framework for defining possible alternatives to the subject Project.

As stated in Section 2.6 of the FEIR (page 2-19), the purposes of the Project (i.e. the "Project Objectives") are to:

1. Develop a financially viable affordable residential community for lower-income farmworkers and their families in Ventura County to accommodate broad market needs.

2. Provide affordable housing units for farmworkers that will help meet the identified need assigned to Ventura County pursuant to California State Law and adopted in the County's Housing Element.

3. Support the local agricultural industry by providing local farmworker housing proximate to agricultural operations in Ventura County.

4. Provide a variety of apartment sizes to meet various family sizes.

5. Arrange the proposed apartment buildings and on-site amenities in a manner that is logical and promotes efficient use of the housing complex property.

6. Provide recreational opportunities for future project residents with on-site play fields, tot lots/playgrounds, active recreation opportunities, a community garden area, meeting rooms, and a network of meandering pedestrian walkways.

7. Minimize proposed building footprints and other impervious surfaces to accommodate on-site landscaped common space for future project residents.

8. Design an efficient internal circulation system that is safe for pedestrians and bicyclists.

9. Locate affordable housing in a location that provides convenient access to nearby services such as library, schools, commercial centers, and religious institutions.

10. Develop the project site in a manner that would not adversely affect neighboring land uses or infrastructure, including with regard to water and sanitation services, land use compatibility, and the scale of the project.

11. Develop the project site in a manner that would minimize affects from neighboring land uses to the proposed housing complex and future project residents.

12. Avoid modification to the existing Bell Ranch residences and agricultural buildings.

Findings Regarding Project Alternatives

Alternative 1: No Project

The No Project Alternative assumes that the proposed housing complex, Community Wastewater Treatment Facility, and other amenities associated with the proposed Project would not be constructed. The portions of the site proposed to be converted to farmworker housing would continue to be used for agricultural production. Similar to the proposed project, the existing two residences and ancillary agricultural buildings would remain on the site.

The Draft EIR determined that the No Project Alternative would be environmentally superior to the Project due to avoidance of any significant and unmitigated impacts to agricultural resources – soils. However, the No Project Alternative would not meet any of the objectives of the proposed project. Specifically, the No Project Alternative would not "[p]rovide affordable housing units for farmworkers that will help meet the identified need assigned to Ventura County pursuant to California State Law and adopted in the County's Housing Element." The No Project Alternative fails to achieve the objectives of the project. Therefore, the Board finds that the Project is preferable to the No Project Alternative.

Alternative 2: Reduced Footprint

The Reduced Footprint Alternative (Alternative 2) assumes that the proposed housing complex, Community Wastewater Treatment Facility, and some amenities associated with the proposed project would be constructed within a smaller development footprint on the project site at 2789 Somis Road. The development footprint would be reduced by 1.72 acres when compared to the proposed Project. Similar to the proposed Project, the two existing residences and ancillary agricultural buildings would remain on the site. Also similar to the proposed Project, this alternative would include 360 dwelling units. However, only one of the two community centers included in the proposed Project would be constructed under Alternative 2. Furthermore, Alternative 2 would not include the basketball court, play fields, or community garden included in the proposed Project. The purpose of this alternative is to reduce the proposed Project's significant and unavoidable impact to agricultural resources – soils. For this alternative to be feasible, it was required to maintain all 360 units; otherwise, this alternative would not be economically feasible.

Alternative 2 would avoid the loss of 1.72 acres of Prime Farmland. The impact would therefore be reduced. Nevertheless, Prime Farmland conversion under Alternative 2 would continue to exceed the 5-acre significance threshold for impacts to Prime Farmland or Farmland of Statewide Importance. Consequently, similar to the proposed Project, Alternative 2 would result in a significant and unavoidable impact to agricultural resources.

Alternative 2 would result in incrementally fewer impacts to air quality, biological resources, and agricultural resources – soils. However, mitigation measures would still be required for the same issue areas as required by the proposed Project, including air quality and biological resources. Impacts to agricultural resources – soils would still remain significant and unavoidable in Alternative 2. Furthermore, Alternative 2 would not meet the Project's objective related to providing all of the recreational opportunities for future Project residents included under the proposed Project. Alternative 2 would not include the basketball court, play fields, or the community garden included in the proposed Project. Therefore, relative to the proposed Project, Alternative 2 would be less consistent with the Project's objectives. Specifically, Alternative 2 would not meet the following objectives:

5. Arrange the proposed apartment buildings and on-site amenities in a manner that is logical and promotes efficient use of the housing complex property.

6. Provide recreational opportunities for future project residents with on-site play fields, tot lots/playgrounds, active recreation opportunities, a community garden area, meeting rooms, and a network of meandering pedestrian walkways.

7. Minimize proposed building footprints and other impervious surfaces to accommodate on-site landscaped common space for future project residents.

8. Design an efficient internal circulation system that is safe for pedestrians and bicyclists.

The lack of adequate recreational amenities on the Project site would require future residents to seek off-site recreational opportunities, which would also increase vehicle miles traveled. Although Alternative 2 would be consistent with some of the objectives of the proposed Project, it would not adequately meet Objectives 5, 6, 7, and 8. As such, it has been found infeasible for social, economic and other reasons. The Board finds that the Project is preferable to Alternative 2.

BE IT FURTHER RESOLVED that the Board approves the above CEQA findings in support of its actions to approve the Project, including the decisions to grant the Planned Development Permit, grant the Conditional Use Permit, and approve the Tentative Parcel Map.

Upon motion of Supervisor Long, seconded by Supervisor Huber, and duly carried, the Board of Supervisors hereby adopts this resolution on 2 day of February, 2021.

Linda Parks

Linda Parks, Chair, Board of Supervisors
County of Ventura

ATTEST:
Michael Powers,
Clerk of the Board of Supervisors
County of Ventura, State of California.

By: Lori Kay
Deputy Clerk of the Board