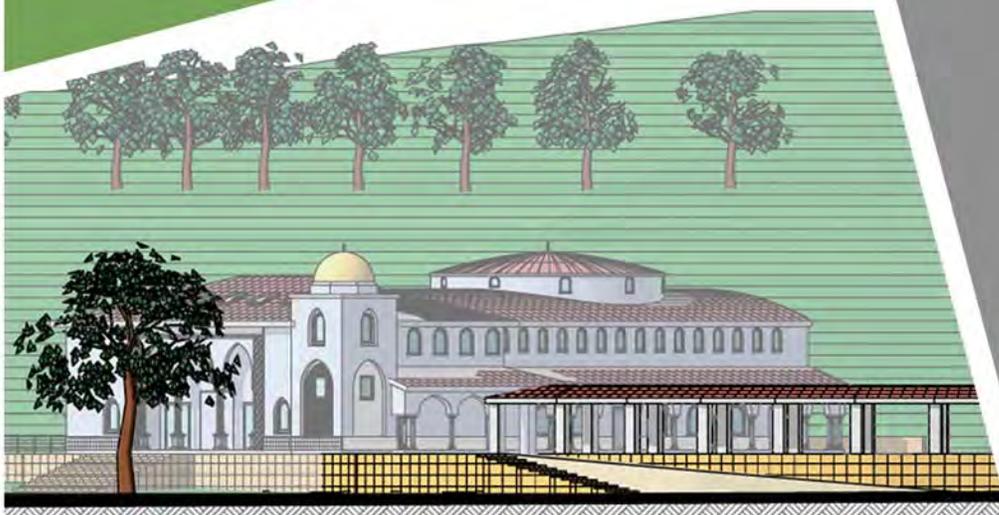




Draft
Environmental Impact Report
Cordoba Center

State Clearinghouse Number: 2016122022
County File # 2145

May 30, 2018



PREPARED FOR:
Santa Clara County Department
of Planning and Development

County of Santa Clara

Department of Planning and Development

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Ladies and Gentleman:

SUBJECT: CORDOBA CENTER DRAFT ENVIRONMENTL IMPACT REPORT

The enclosed Draft Environmental Impact Report (Draft EIR) has been prepared to evaluate the potential environmental impacts of the project described below:

The project proponent, South Valley Islamic Center (SVIC), proposes to develop the Cordoba Center, a multi-use religious and cultural center to serve the Muslim community of south Santa Clara County on a 15.8-acre site on Monterey Road within the unincorporated community of San Martin. The primary structures proposed include a two-story mosque and a two-story community center building, which would both be located on the southern portion of the project site, facing south (toward California Avenue). The western portion of the site would be used as a cemetery. A caretaker's residence and orchard are proposed to be located along Monterey Road. There are currently approximately 400 members of SVIC. Maximum attendance at religious and cultural events is generally anticipated to be 300 individuals, although special events (4 times per year) could include as many as 500 attendees.

Your comments regarding the significant environmental effects of this project and the adequacy of the Draft EIR are welcome. Written comments, submitted to the Santa Clara County Planning Office by 5:00 p.m., July 30, 2018, will be included in the Final EIR. Please address comments to:

Chris Hoem
Santa Clara County Planning Office, County Government Center
70 W. Hedding Street, 7th Floor, East Wing, San Jose, CA 95110.
E-mail: CordobaEIRComments@pln.sccgov.org. Fax: (408) 288-9198

A meeting to receive comments on the Draft EIR has been scheduled for Thursday, July 12, 2018 from 7 p.m. to 9 p.m. in in the Morgan Hill Community Center, Hiram Hall, 17000 Monterey Rd, Morgan Hill, CA 95037.

Sincerely,


Manira Sandhir, Principal Planner, AICP

**Draft Environmental Impact Report
for the**

Cordoba Center Project

State Clearinghouse # 2016122022

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**Santa Clara County
Department of Planning and Development**
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May 30, 2018

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LIST OF ABBREVIATIONS

°F	degrees Fahrenheit
A.D.	anno Domini
AB	Assembly Bill
AF	acre feet
AFV	alternative fuel vehicles
B.P.	before present
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officer's Association
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CMA	Congestion Management Agency
CMP	Congestion Management Program
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO ₂	carbon dioxide
CO ₂ e	CO ₂ -equivalent
CPUC	California Public Utilities Commission
CRPR	California Rare Plant Rank
CWA	federal Clean Water Act
dB	decibel
dBA	A-weighted decibel
DEH	Department of Environmental Health
District	Santa Clara Valley Water District
DWR	California Department of Water Resources
EAP	Energy Action Plan
EIA	U.S. Energy Information Administration
EIR	environmental impact report
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 1992
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration

GHG	greenhouse gas
gpd	gallons per day
GWMP	Groundwater Management Plan
HST	California high-speed train
IEPR	Integrated Energy Policy Report
IEPR	Integrated Energy Policy Report
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
KVP	key viewpoint
LAMP	Local Agency Management Program
L _{dn}	day-night noise level
L _{eq}	equivalent noise level
L _{max}	maximum noise level
LOS	level of service
LRV	light reflectivity value
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
mg/L	milligrams per liter
MLD	most likely descendant
MMT	million metric tons
mph	miles per hour
MPO	metropolitan planning organization
MT CO _{2e} /year	metric tons of CO _{2e} per year
MT/SP	metric ton per service population
MTC	Metropolitan Transportation Commission
MWQB	median water quality baseline
N ₂ O	nitrous oxide
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NOP	notice of preparation
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
OHP	Office of Historic Preservation
OWTS	on-site wastewater treatment system
PG&E	Pacific Gas & Electric Company
PPV	peak particle velocity
PRC	Public Resources Code
RMS	root-mean-square
RPS	renewable portfolio standard
RWQCB	Regional Water Quality Control Board

SB	Senate Bill
s.f.	square feet
SAF Plan	State Alternative Fuels Plan
Santa Clara VTA	Santa Clara Valley Transportation Authority
SCS	Sustainable Communities Strategy
SCVHP	Santa Clara Valley Habitat Plan
SCVWD	Santa Clara Valley Water District
State CEQA Guidelines	California Environmental Quality Act Guidelines
SVIC	South Valley Islamic Center
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TDS	total dissolved solids
TMDL	total maximum daily load
U.S. 101	U.S. Highway 101
UCMP	University of California Museum of Paleontology
USACE	US Army Corps of Engineers
USFWS	US Fish and Wildlife Service
UWMP	Urban Water Management Plan
VdB	vibration decibels
VMT	vehicle miles traveled

1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

This Executive Summary is provided in accordance with the California Environmental Quality Act (CEQA) Guidelines Section 15123. As stated in the State CEQA Guidelines Section 15123(a), “[a]n 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.” State 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 environmental 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 proposed project and project alternatives, environmental impacts and mitigation, areas of known environmental controversy, and issues to be resolved during environmental review. Table 1-2 (at the end of this section) presents the summary of potential environmental impacts, their level of significance without mitigation measures, the mitigation measures, and the levels of significance following the implementation of mitigation measures.

1.2 SUMMARY OF THE PROPOSED PROJECT

1.2.1 Project Location

The project would be located west of U.S. Highway 101 between the communities of Morgan Hill and San Martin in southern Santa Clara County. The 15.8-acre site (APN: 779-06-002) fronts Monterey Road, just north of the intersection with California Avenue (14065 Monterey Road). The northern boundary of the site parallels Llagas Creek, the parcel south of the site is actively farmed, and land uses to the west consist of rural residences and associated farming practices. The industrial land uses east of Monterey Road are separated from the site by the railroad tracks that parallel the eastern side of the highway. The site is within the San Martin planning area. The County General Plan designates the site Rural Residential. The site is zoned A1 (General Use), with a combining district of -sm (San Martin Use Permit Areas) for the eastern half of the site, specifically the area fronting Monterey Road.

1.2.2 Project Objectives

The project proposes the following project objectives (as stated by the project proponent):

- ▲ provide a financially self-sustaining religious and cultural facility for members of the Muslim faith who reside in the south Santa Clara County area, including the cities of Gilroy and Morgan Hill;
- ▲ meet the worship and social support needs of local Muslim residents of all ages;
- ▲ provide a mosque for worship and related spiritual services; a cemetery for interment of deceased members of the congregation and their families; a separate community building for social and educational activities; and necessary support uses, including a caretaker’s dwelling and a maintenance building;

- ▲ develop adequate space to accommodate religious activities and administrative functions of the church while respecting and preserving the natural aesthetic and heritage of the site;
- ▲ provide a buffer planted with trees, including orchard trees, to act as a visual and noise barrier between Monterey Highway and the mosque, to moderate the visual appearance of project development from off-site views, and to enhance the sense of “sanctuary” at the facility; and
- ▲ provide facilities sized to accommodate attendance projections for the growing South Valley Islamic Community through at least 2030.

1.2.3 Project Description

The proposed Cordoba Center project is intended to provide an Islamic worship and cultural center for Muslim residents in the southern portion of the Santa Clara Valley. As described further below, project facilities would include a mosque, a multi-use community building, a cemetery, an area for youth summer camps, and additional supportive and ancillary structures. There are currently approximately 400 members of the South Valley Islamic Community. Maximum attendance at religious and cultural events is generally anticipated to be 300 individuals, although the Eid prayers and associated banquets that take place twice a year, and community picnics, could include as many as 500 attendees. Typical attendance at daily dawn, mid-day, and late afternoon prayers would be 100 to 150 individuals. Events and regularly-scheduled activities would generally occur between 10:00 a.m. and 10:00 p.m., and would be concentrated on Fridays, Saturday, and Sundays. However, the mosque would be open to members for personal worship at all times.

The project would include the following key elements:

Mosque: a two-story, approximately 9,000 square foot (s.f.) hall for religious worship. Building architecture would be California Mission style, with stucco exterior and terra cotta tile roof. Maximum height of the domes would be 35 feet. Amplified outside sound, including call to prayer, is not proposed.

Community Building: a two-story, approximately 14,500 s.f. multi-use building that would include an event hall, kitchen, classrooms, conference room, office, and restrooms. Building architecture would be California Mission style, with stucco exterior and terra cotta tile roof.

Community Plaza: a 15,000 s.f. plaza that would be located between the mosque and the community building. The plaza would be surfaced with pervious concrete and include small landscape islands.

Cemetery: located on 3.55 acres on the western side of the site. The cemetery area would be terraced to provide a level surface for the graves and adjoining gravel pedestrian paths, and would be landscaped to resemble native grassland. Each grave would be marked by a flat marker that does not project above grade. The maximum density of graves would be 1,200 per acre.

Maintenance Building: a 2,500 s.f. building for storage of maintenance vehicles.

Caretaker's Dwelling: located near the site entrance. The caretaker's dwelling would initially include a mobile home that would eventually be replaced with a permanent residence when funds become available.

Youth Camp: approximately 0.4 acre on the ridgeline above the cemetery that would be used for a seasonal youth camp. Permanent structures would include two 390 s.f. bathhouses and 14 wooden tent platforms (canvas tents would be erected on the platforms only when camp is in session).

Playfield and Playground: a rubberized-surface playfield and an adjoining children's playground that would be located near the community building.

Orchard: fruit trees planted on a 0.6 acre area along Monterey Road to create a barrier between the sanctuary space and the road, as well as provide a rural amenity consistent with the character of the area.

Site infrastructure: bioretention swale and connected retention pond to slow stormwater runoff, a sewage disposal field served by two independent drip system leach fields, and a well for landscape irrigation. Water for fire protection and potable purposes would be procured from the West San Martin Water Works.

1.3 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project. This Draft EIR evaluates impacts to environmental resources that could result from implementation of the Cordoba Center Project, and discusses mitigation measures that could be implemented to reduce potential adverse impacts to a level that is considered less than significant. The impacts and mitigation measures are identified Chapter 4, “Affected Environment, Environmental Consequences, and Mitigation Measures,” and are summarized in Table 1-2 at the end of this chapter. The mitigation measures presented in this Draft EIR will form the basis of the Mitigation Monitoring and Reporting Program.

1.3.1 Significant and Unavoidable Impacts

An impact that cannot be avoided or substantially lessened through implementation of reasonable project alternatives or mitigation measures would be an unavoidable significant adverse impact of the project. Implementation of the proposed project would result in significant and unavoidable impacts due to project-generated greenhouse gas emissions. For details, see Section 4.7, “Greenhouse Gas Emissions, Climate Change, and Energy.”

1.3.2 Cumulative Impacts

CEQA requires that an EIR examine the cumulative impacts of a project. As discussed in Section 15130(a)(1) of the State CEQA Guidelines, a cumulative impact “consists of an impact [that] is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts.” The potential for the project to have a cumulatively considerable contribution to a cumulative environmental impact is evaluated in each of the resource sections. The analysis determined that project impacts would not result in a considerable contribution to any cumulatively significant impacts from other past, present or reasonably foreseeable probable future projects. No significant cumulative impacts have been identified for the project.

1.4 REQUIRED PERMITS AND APPROVALS

A number of permits and approvals, including discretionary actions, are listed in Table 1-1 and would be required before development of the project could proceed. As lead agency for the proposed project, the Santa Clara County would be responsible for the majority of approvals required for the development. Where other agencies have authority related to the project and its approvals, these agencies may use this EIR when considering required permits and approvals.

Table 1-1 Required Discretionary Permits and Approvals

Agency	Permit/Approval
County of Santa Clara	Use Permit, Architecture and Site Approval, Grading Approval, and Cemetery Permit, On-site Wastewater Treatment System Approval, Encroachment Permit
Central Coast Regional Water Quality Control Board	National Pollutant Discharge Elimination System Permit

Source: Data Compiled by Ascent Environmental

1.5 SUMMARY OF PROJECT ALTERNATIVES

Pursuant to Section 15126.6(c) of the State CEQA Guidelines, this Draft EIR includes a reasonable range of alternatives to the proposed project that meet most of the objectives of the project and avoid or substantially lessen the identified likely environmental impacts. The following summary describes the alternatives to the proposed project that are evaluated in this Draft EIR. For further discussion, refer to Chapter 6, “Project Alternatives.”

- ▲ **Alternative 1: No Project Alternative.** State CEQA Guidelines Section 15126.6(e) (1) requires that the no project alternative be described and analyzed “to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project.” The no project analysis is required to discuss “the existing conditions at the time the notice of preparation is published...as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services” (Section 15126.6[e][2]). “If the project is... a development project on identifiable property, the ‘no project’ alternative is the circumstance under which the project does not proceed. The No Project Alternative assumes that no development would occur on the project site and that it would remain in an undeveloped state into the foreseeable future. See Chapter 6, “Project Alternatives,” for a detailed description.
- ▲ **Alternative 2: Local-Serving Threshold Alternative.** This alternative would involve development of a much smaller religious center that meets the 75th percentile value in the County’s *Local Serving Data* document, which is part of the local-serving use determination set forth in the County Zoning Ordinance (Section 2.20.090). See Chapter 6, “Project Alternatives,” for a detailed description.
- ▲ **Alternative 3: 25 Percent Reduced Intensity Alternative.** This alternative involves a 25 percent reduction in the size of the proposed building footprints of the mosque and the community center and associated facilities, and a reduction in the projected number of attendees. See Chapter 6, “Project Alternatives,” for a detailed description.
- ▲ **Alternative 4: 50 Percent Reduced Intensity Alternative.** This alternative involves a 50 percent reduction in the size of the proposed building footprints of the mosque and the community center and associated facilities, and a reduction in the projected number of attendees. See Chapter 6, “Project Alternatives,” for a detailed description.

1.6 AREAS OF CONTROVERSY

The notice of preparation (NOP) and comments received in response to the NOP are included in Appendix B of this Draft EIR, and are listed in Chapter 2, “Introduction,” Table 2-2.

The following provides a summary of issues raised through scoping and comments on the NOP that could be considered controversial:

- ▲ adequate access to infrastructure, including sewer and water,
- ▲ increased traffic,
- ▲ local drainage and flooding,
- ▲ effects of the proposed cemetery on groundwater quality,
- ▲ land use and compatibility, and
- ▲ the combined effects of the proposed project and the proposed Patel RV Park.

1.7 ISSUES TO BE RESOLVED

The State CEQA Guidelines require that an EIR present issues to be resolved by the lead agency. These issues include the choice among alternatives and whether or how to mitigate potentially significant impacts. The major issues to be resolved by the County regarding the project are whether:

- ▲ recommended mitigation measures should be adopted or modified;
- ▲ additional mitigation measures need to be applied to the proposed project; and
- ▲ the proposed project should or should not be approved or an alternative approved.

Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
4.1 Aesthetics and Visual Resources			
<p>Impact 4.1-1: Have a substantial adverse effect on a scenic vista. There are no designated scenic vistas on the project site. The front portion of the project site is generally not visible from the valley floor; however, a bedrock ridge spans the northern boundary of the project site. The ridge is the most visible portion of the site, although views of the ridge from outside the immediate vicinity of the project are limited by intervening buildings and vegetation. Proposed structures would be subject to various levels of design review (levels depend on building size), including the small accessory structures (tent platforms, bath houses, and water tanks), which are proposed to be located on or near the ridgeline. Compliance with the County's design review process would require appropriate siting and design to visibility of the structures and would reduce potential impacts to a less-than-significant level.</p>	LTS	No mitigation is required.	LTS
<p>Impact 4.1-2: Substantially degrade the existing visual character or quality of the site and its surroundings. Construction activities on the project site would occur over a span of approximately 4 years, and, although construction activities would change the visual character of the site by exposing soil and placing equipment and materials on site, this adverse effect would be temporary, and dust would be controlled by implementing best management practices (BMPs). Therefore, the construction phase of the project would not result in substantial adverse visual change to the project site. The operational phase of the project would place several structures and other facilities on the site where currently no structures exist. However, the structures would be subject to the County's design review procedure and San Martin Integrated Design Plan and Guidelines standards, and mitigation to visually screen the proposed development from viewpoints along public roads would be required. Therefore, although the visual character of the site would change as a result of the project, this impact would be less than significant with mitigation incorporated.</p>	PS	<p>Mitigation Measure 4.1-2: Update Landscape Plan for Project Site Screening Prior to issuance of any grading or building permits, the applicant shall submit to the County Planning Office an updated landscaping plan that conforms to the San Martin Integrated Design Plan and Guidelines and that demonstrates through use of evergreen plantings of sufficient height, depth, and location that all project structures as well as the youth summer camp will be screened from public view at the Key Viewpoint locations on Monterey Road and California Avenue.</p>	LTS
<p>Impact 4.1-3: Substantial new source of light or glare. The project would add sources of light, but the lighting plan submitted by the applicant would be consistent with County requirements and would be low level, constant in intensity and color, and directed to avoid glare and illumination onto neighboring properties. In addition, the proposed on-site trees would obscure lighting from view from neighboring areas. This impact would be less than significant.</p>	LTS	No mitigation is required.	LTS

NI = No impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable, LTC = Less than considerable contribution, LTCM = Less than considerable with mitigation

Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>Impact 4.1-4: Contribution to cumulative effects related to substantial adverse effects on a scenic vista.</p> <p>Less-than-considerable contribution. As discussed above under Impact 4.1-1, there are no designated scenic vistas on the project site. Proposed structures would be subject to various levels of design review (levels depend on building size), including the small accessory structures (tent platforms, bath houses, and water tanks), which are proposed to be located on or near the ridgeline. Compliance with the County's design review process would require appropriate siting and design to visibility of the structures and would minimize potential impact. There are no other projects proposed in high visibility areas or on this or other ridgelines in the vicinity, and any future development proposed on ridgelines in this area would be subject to similar design review requirements. Therefore, the project would result in a less-than-considerable contribution to a cumulative effect on a scenic vista.</p>	LTC	No mitigation is required.	LTC
<p>Impact 4.1-5: Contribution to cumulative effects related to substantial degradation of the existing visual character or quality of the site and its surroundings.</p> <p>Less-than-considerable contribution. Minimal development is proposed in the region. The most prominent development proposed is an RV park located immediately adjacent to the project site, which would be visible from the same public viewpoints. Due to the proximity of the proposed Cordoba Center project to the proposed RV park site, the visual effects of both projects would have a combining effect. However, the proposed project is required to be designed to maintain an appearance that is consistent with the rural character of southern Santa Clara County and, as required by Mitigation Measure 4.1-2, includes extensive tree planting, which would minimize the project's contribution to the combined effect; therefore, the proposed project's contribution to a cumulative impact would be less than considerable.</p>	LTCM	No additional mitigation is required.	LTC
<p>Impact 4.1-6: Contribution to cumulative increases in light and glare that would adversely affect day or night-time views in the area.</p> <p>Less-than-considerable contribution. Minimal development is proposed in the project region; therefore, minimal additional lighting would occur. The most prominent probable future development is an RV park located adjacent to the project site. Although there may be lighting associated with the RV park, the proposed project would add minimal lighting to the project vicinity. Proposed project lighting would be low level, constant in intensity and color, and directed to avoid glare and illumination onto neighboring properties. This also minimizes potential for light pollution and contribution to sky glow. Proposed trees would screen views</p>	LTC	No mitigation is required.	LTC

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Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>of project lights from neighboring properties. Therefore, the project’s contribution to cumulative impacts related to light and glare in the region would be less than considerable.</p>			
<p>4.2 Cultural Resources</p>			
<p>Impact 4.2-1: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Although unlikely, construction and excavation activities associated with project development could unearth previously undiscovered paleontological resources, if they are present. This impact is potentially significant. Implementation of the mitigation measure below would reduce impacts associated with the discovery of unknown paleontological resources to a less-than-significant level.</p>	<p>PS</p>	<p>Mitigation Measure 4.2-1. Avoidance or treatment of uncovered paleontological resources. The project proponent shall retain a qualified paleontologist to provide a preconstruction briefing to the supervisory personnel of the excavation contractor to alert them to the possibility of exposing significant paleontological resources within the property. In the event that paleontological resources are discovered during project construction, construction shall halt in the immediate vicinity of the find until a qualified paleontologist is consulted to determine the significance of the find, and has recommended appropriate measures to protect the resource. Further disturbance of the resource shall not be allowed until those recommendations are approved by the County Planning Office and the recommendations for protection of the resource have been implemented.</p>	<p>LTS</p>
<p>Impact 4.2-2: Cause a substantial adverse change in the significance of an archaeological resource. Although unlikely, construction and excavation activities associated with project development could unearth previously undiscovered archaeological resources, if they are present. This impact is potentially significant. Implementation of Mitigation Measures 4.2-2a and 4.2-2b would reduce impacts associated with the discovery of archaeological resources to a less-than-significant level.</p>	<p>PS</p>	<p>Mitigation Measure 4.2-2a. Notification and training regarding potential archaeological resources. The applicant shall note on any plans that relate to ground-disturbance that there is a potential for exposing unknown, buried cultural resources. The project proponent shall retain a Professional Archaeologist to provide a preconstruction briefing to the supervisory personnel of the excavation contractor to alert them to the possibility of exposing significant historical and archaeological resources within the property. The briefing shall describe the types of archaeological objects that could be exposed, the need to stop excavation at the discovery, and the procedures to follow regarding discovery protection and notification of the project proponent and archaeologist. If archaeological materials are exposed or discovered during subsurface construction activities on the site, then the operator of the cemetery shall receive a similar briefing as the construction personnel.</p> <p>Mitigation Measure 4.2-2b. Treatment of buried cultural resources. In the event that archaeological materials are exposed or discovered during subsurface activities, activities within 50 feet of the find shall stop, and a Professional Archaeologist who meets the Secretary of the Interior’s standards shall be contacted for evaluation and further recommendations. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) under CEQA and/or unique archaeological resources. If the Professional Archaeologist determines that any cultural resources</p>	<p>LTS</p>

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Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>constitute a significant archaeological resource, he/she shall notify the project proponent and the County Planning Office of the evaluation and recommended mitigation measures to mitigate any impact to a less-than-significant level. If a discovery is determined to be a significant archaeological resource, and if avoidance of the resource is not possible, the Professional Archaeologist shall prepare and assist in the implementation of a Cultural Resources Management Plan, which must be reviewed and approved of by the Santa Clara County Planning Office, for appropriate treatment of the resource. Potential recommendations could include evaluation, collection, recordation, and analysis of any significant archaeological materials. Treatment of any significant archaeological resources shall be undertaken in accordance with the Cultural Resources Management Plan and approved by the Professional Archaeologist.</p> <p>Mitigation Measure 4.2-2c. Treatment of human remains.</p> <p>If human remains are discovered during construction, CEQA Guidelines 15064.5(e)(1) shall be followed, which is as follows:</p> <p>In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:</p> <p>1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:</p> <p>a) The Santa Clara County coroner must be contacted to determine that no investigation of the cause of death is required; and</p> <p>b) If the coroner determines the remains to be Native American:</p> <ol style="list-style-type: none"> 1. The coroner shall contact the Native American Heritage Commission within 24 hours; 2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American; 3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98; or <p>2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.</p>	

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Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		a) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the Commission; b) The descendant identified fails to make a recommendation; or c) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.	
Impact 4.2-3: Contribution to cumulative loss of paleontological or geological resources Although the project has the potential to cause a significant impact to such resources, implementation of Mitigation Measure 4.2-1 would minimize the individual project impact on paleontological resources to a less-than-significant level. The project's contribution, after implementation of mitigation, to a cumulative impact on paleontological resources would be less than considerable.	PS	No additional mitigation is required.	LTC
Impact 4.2-4: Contribution to cumulative impacts on archaeological resources, historic resources or human remains. Although the project has the potential to cause a significant impact to such resources, implementation of Mitigation Measure 4.2-2 would minimize the individual project impacts to archaeological resources, historic resources, and human remains to a less-than-significant level. The project's contribution, after implementation of mitigation, to a cumulative impact on archaeological resources would be less than considerable.	PS	No additional mitigation is required.	LTC
4.3 Biological Resources			
Impact 4.3-1: Disturbance to or loss of special-status wildlife species and habitat. Project implementation includes conversion of grassland habitat, removal of trees, and ground disturbance associated with construction of new buildings and roads. These activities could result in the disturbance or direct loss of special-status wildlife for which the site supports suitable habitats for nesting or roosting. The loss of special-status wildlife species and their habitat would be a potentially significant impact.	PS	Mitigation Measure 4.3-1a: Nesting raptor preconstruction survey and establishment of protective buffers. The applicant shall implement the following measures to reduce impacts on nesting raptors: <ul style="list-style-type: none"> ▲ To minimize the potential for loss of nesting raptors, tree removal activities will only occur during the nonbreeding season (September 1-January 31). If all suitable nesting habitat is removed during the nonbreeding season, no further mitigation will be required. ▲ Prior to removal of any trees or other vegetation, or ground disturbing activities between February 1 and August 31, a qualified biologist will conduct preconstruction surveys for nesting raptors, and will identify active 	LTS

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Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>nests within 500 feet of the site. The surveys will be conducted before the beginning of any construction activities between February 1 and August 31. A report of the completed survey shall be provided to the County Planning Office.</p> <ul style="list-style-type: none"> ▲ Impacts to nesting raptors will be avoided by establishing appropriate buffers around active nest sites identified during preconstruction raptor surveys. Activity will not commence within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. CDFW guidelines recommend implementation of a 500-foot buffer for raptors, but the size of the buffer may be adjusted if a qualified biologist and the applicant, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest. ▲ Trees will not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree. <p>Mitigation Measure 4.3-1b: Burrowing Owl Survey and Consultation</p> <p>The applicant shall implement the following measures to reduce impacts on burrowing owl:</p> <ul style="list-style-type: none"> ▲ The applicant shall retain a qualified biologist to conduct focused surveys for burrowing owls in areas of suitable habitat within 500 feet of the project site. Surveys will be conducted prior to the start of construction activities and in accordance with Appendix D of CDFW's <i>Staff Report on Burrowing Owl Mitigation</i> (CDFW 2012). A report of the completed survey shall be provided to the County Planning Office. ▲ If no occupied burrows are found, a letter report documenting the survey methods and results will be submitted to CDFW and no further mitigation will be required. ▲ If a burrow occupied by a burrowing owl is found, the project applicant shall consult with CDFW regarding protection buffers to be established around the occupied burrow and maintained throughout construction. Recommended buffers range from 150 to 1,500 feet depending on the project site conditions and burrowing owl use of the burrow. Exclusion of 	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation																																																
		burrowing owls from any occupied burrows is not expected to be necessary because the staging areas may be adjusted to minimize disturbance. Exclusion of burrowing owls during the breeding season (February 1 through August 31) will be prohibited.																																																	
<p>Impact 4.3-2: Disturbance to or loss of special-status plant species and habitat. Project implementation includes conversion of grassland habitat, removal of trees, and ground disturbance associated with construction of new buildings and roads. These activities could result in the disturbance or direct loss of special-status plants, because of direct removal or trampling. The loss of special-status plant species and their habitat would be a potentially significant impact.</p>	PS	<p>Mitigation Measure 4.3-2: Identify and Avoid Special-Status Plant Species The applicant shall implement the following measures to reduce impacts on special-status plants:</p> <ul style="list-style-type: none"> ▲ Prior to construction and during the blooming period for the special-status plant species with potential to occur in the project site, a qualified botanist will conduct protocol-level surveys for special-status plants in areas where potentially suitable habitat would be removed or disturbed by project activities. A report of the completed survey shall be provided to the Santa Clara County Planning Division. Table 4.3-3 summarizes the normal blooming periods (shown in gray) for special-status plant species with potential to occur on the project site, which generally indicates the optimal survey periods when the species are most identifiable. <p>Table 4.3-3 Normal Blooming Period for Special-Status Plants with Potential to Occur on the Project Site</p> <table border="1"> <thead> <tr> <th>Species</th> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>Apr</th> <th>May</th> <th>Jun</th> <th>Jul</th> <th>Aug</th> <th>Sep</th> <th>Oct</th> <th>Nov</th> </tr> </thead> <tbody> <tr> <td>big-scale balsamroot <i>Balsamorhiza macrolepis</i></td> <td></td> <td></td> <td style="background-color: #cccccc;"></td> <td style="background-color: #cccccc;"></td> <td style="background-color: #cccccc;"></td> <td style="background-color: #cccccc;"></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>fragrant fritillary <i>Fritillaria liliacea</i></td> <td></td> <td style="background-color: #cccccc;"></td> <td style="background-color: #cccccc;"></td> <td style="background-color: #cccccc;"></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>woodland woollythreads <i>Monolopia gracilens</i></td> <td></td> <td style="background-color: #cccccc;"></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	big-scale balsamroot <i>Balsamorhiza macrolepis</i>												fragrant fritillary <i>Fritillaria liliacea</i>												woodland woollythreads <i>Monolopia gracilens</i>												LTS
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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>most beautiful jewelflower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i></p> <p>Source: Data compiled by Ascent Environmental in 2017, Calflora 2017</p> <ul style="list-style-type: none"> ▲ If no special-status plants are found, the botanist shall document the findings in a letter report to USFWS, CDFW, and the project applicant and no further mitigation will be required. ▲ If special-status plant species are identified, the applicant shall hire a qualified botanist to prepare an impact avoidance plan. The plan shall include mapping of special-status plants within the project site and shall identify sufficient buffers to avoid impacts to the plants and root systems. Buffer areas will be identified with high-visibility construction fencing, flagging, or other appropriate methods. ▲ If special-status plant species are found that cannot be avoided during construction, the applicant shall consult with CDFW and/or USFWS, as appropriate depending on species status, to determine the appropriate protection measures to minimize direct and indirect impacts that could occur as a result of project construction and shall implement the agreed-upon measures to achieve no net loss of occupied habitat or individuals. Protection measures may include preserving and enhancing existing populations, creation of off-site populations on mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat and/or individuals. A monitoring plan shall be developed describing how unavoidable losses of special-status plants will be compensated. ▲ If relocation efforts are included in the protection measures, the measures shall specify the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to 	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>meet long-term monitoring requirements.</p> <ul style="list-style-type: none"> ▲ Success criteria for preserved and compensatory populations shall include: <ul style="list-style-type: none"> ▶ The extent of occupied area and plant density (number of plants per unit area) in compensatory populations will be equal to or greater than the affected occupied habitat. ▶ Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when: <ul style="list-style-type: none"> - plants reestablish annually for a minimum of 5 years with no human intervention such as supplemental seeding; and - reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity. ▶ If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long term viable populations. 	
<p>Impact 4.3-3: Compliance with Santa Clara County Tree Preservation and Removal Ordinance. Project implementation includes removal of two trees within the project site that are protected under the Santa Clara County Tree Preservation and Removal ordinance, including one valley oak and one blue gum. Because the native oak tree was determined to be in fair-to-poor health and poor structure, and because the nonnative blue gum tree is a detrimental/undesirable species according to the ordinance, the removal of these two trees would be a less-than-significant impact.</p>	LTS	No mitigation is required.	LTS
<p>Impact 4.3-4: Contribution to cumulative impacts on biological resources. Although the project has the potential to significantly impact biological resources, implementation of Mitigation Measures 4.3-1 through -3 would minimize the individual project impacts to biological resources to a less-than-significant level. Because the project's individual impacts after mitigation would not be significant, and because other development</p>	LTC	No additional mitigation is required.	LTC

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>in the region would typically be required to implement similar avoidance and minimization measures, the project's contribution to this cumulative impact would be less than considerable.</p>			
<p>4.4 Hydrology and Water Quality</p>			
<p>Impact 4.4-1: Violate water quality standards or waste discharge requirements, or otherwise degrade water quality due to surface runoff.</p> <p>During construction, the project would implement BMPs designed to limit erosion and improve stream flow through preparation of a SWPPP and conformance with applicable regulations related to potential contamination because of potentially hazardous materials. During operation, design features would effectively limit off-site drainage and treat runoff on-site. This impact would be less than significant.</p>	<p>LTS</p>	<p>No mitigation is required.</p>	<p>LTS</p>
<p>Impact 4.4-2: Conflict with County OWTS standards in a manner that is inappropriate for on-site soils or which could cause localized groundwater mounding and surface seepage.</p> <p>Soil profile evaluations and percolation testing have demonstrated that the property has suitable conditions for an on-site wastewater treatment system (OWTS) in accordance with County requirements. However, the horizontal setback between the non-residential dispersal field and the proposed cut-slope adjacent to the pathway along the north side of the play area and sports courts does not meet the necessary setback requirements. These factors pose the risk of an unacceptable level of saturation beneath the drip fields. Due to the possibility for lateral seepage of inadequately treated effluent at the proposed cut slope downhill, the OWTS, as proposed, would result in a significant impact. With implementation of the recommended mitigation, which would modify the design of the OWTS, this impact would be less than significant.</p>	<p>S</p>	<p>Mitigation Measure 4.4-3: Revise wastewater disposal plan design.</p> <p>The applicant shall develop, submit for review and approval of County DEH, and implement a revised wastewater disposal plan that addresses the issue of soil saturation in the proposed drip field area by lengthening the wastewater disposal area and reducing the overall design hydraulic loading to 3,000 gpd (i.e., a 50 percent reduction compared to the proposed design). This shall be accomplished by: (a) eliminating the lower drip dispersal field shown on the proposed project wastewater plan; (b) confining drip dispersal to the area higher up on the slope in this area; (c) extending the drip field a greater distance laterally across the slope (250 to 300 feet); and (d) developing an additional alternate drip disposal field in the orchard area on the east side of property with capacity for 50 percent of the design wastewater flow.</p> <p>The hillside drip field and orchard drip field shall be operated in tandem, each receiving 50 percent of the daily wastewater flow. Individually, each field shall have a primary (active) and secondary (resting) drip dispersal systems installed to meet minimum requirements for a dual, 200 percent capacity disposal system.</p>	<p>LTS</p>
<p>Impact 4.4-3: Exceed acceptable nitrate or salt concentrations in groundwater due to operation of the on-site wastewater disposal facilities.</p> <p>Operation of the on-site wastewater treatment system could result in nitrogen levels that exceed the RWQCB/DEH water quality standards for areas served by individual water wells. This would result in a significant impact to water quality. With mitigation requiring</p>	<p>S</p>	<p>Mitigation Measure 4.4-3: Supplemental nitrogen treatment and effluent monitoring.</p> <p>The applicant shall implement the following measures to treat and monitor nitrogen loading from the on-site wastewater system:</p> <ul style="list-style-type: none"> ▲ Modify the proposed wastewater facilities plan to include changes in the dispersal facilities as described in Mitigation Measure 4.4-2 and 	<p>LTS</p>

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<p>modification of the OWTS and groundwater quality monitoring, this impact would be less than significant.</p>		<p>incorporate a supplemental treatment system capable of meeting a 20 mg/L (average) nitrogen effluent performance limit.</p> <ul style="list-style-type: none"> ▲ Coordinate with Santa Clara County DEH to establish wastewater effluent monitoring requirements to provide on-going assurance that the system performs adequately. Compliance with these requirements shall be considered conditions of the operating permit for the project. 	
<p>Impact 4.4-4: Result in deterioration of groundwater quality below drinking water standards due to operation of the cemetery.</p> <p>Operation of the cemetery could result in nitrogen levels that exceed the water quality standards for areas served by individual water wells. This would result in a potentially significant impact to water quality. With mitigation that would limit the rate of burials and require groundwater monitoring and operational changes in response to changes in groundwater quality, this impact would be less than significant.</p>	<p>PS</p>	<p>Mitigation Measure 4.4-4: Cemetery phasing and groundwater monitoring.</p> <p>Prior to initiating any burial, the applicant shall submit a cemetery development phasing plan for review and approval by the Santa Clara County DEH that includes an established annual limit on the number of burials and a groundwater monitoring plan that includes (at a minimum) the following measures:</p> <ul style="list-style-type: none"> ▲ The burials shall be sequenced to begin in the northeastern corner of the cemetery and proceed down-hill (southerly) on the east side of the proposed driveway, maintaining maximum buffer distance between the graves and the westerly property line. ▲ Monitoring wells shall be installed within the cemetery and along the downslope (southerly and westerly) property lines; at a minimum, monitoring shall include quarterly sampling and analysis for nitrate and TDS concentrations to observe water quality changes over time. A minimum of six monitoring wells shall be installed as follows: three within the cemetery area; two along the westerly property line; and one along the southerly property line. <p>Annual burial rate shall be limited to a baseline of 30 burials per year for the first 5 years of operation, subject to adjustment based on the results of groundwater monitoring.</p> <ul style="list-style-type: none"> ▲ Groundwater monitoring data shall be submitted to County Planning annually for ongoing review. If at any time the groundwater nitrate concentration at monitoring wells along the westerly property line exceed 7.5 mg-N/L, the monitoring wells shall be re-sampled and burials shall cease until monitoring results show the groundwater nitrate concentrations have dropped below the 7.5 mg-N/L evaluation criterion, at which time the County may authorize continued burials. If monitoring results show exceedance of the 7.5 mg-N/L criterion more than twice in one year, the monitoring frequency shall be increased to monthly sampling and nitrate analysis and continued until the results show at least 4 consecutive months of compliance with the 7.5 mg-N/L criterion. Additionally, repeat exceedances of 	<p>LTS</p>

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		<p>7.5 mg-N/L in the groundwater during a given year shall be sufficient cause for the County to require reduction in the annual burial rate, based on recommendations by a qualified groundwater quality specialist and approval by the County, or consideration of other mitigation measures proposed by the Cordoba Center to achieve the same objective of <7.5 mg-N/L.</p> <p>▲ After 5 years of cemetery operation, the groundwater quality data (nitrate and TDS), annual and total number of burials, and recorded rainfall conditions and other factors shall be compared to the expected groundwater quality changes according to the methodology presented in the analysis by Questa (2017a). This recorded data shall be used to confirm or modify the assumptions used in establishing the baseline rate of annual burial (30 per year). The review and analysis shall be conducted by a qualified professional with demonstrated groundwater expertise, and shall form the basis for either: (a) maintaining the baseline annual burial rate; or (b) adjusting the annual burial rate, either higher or lower than the adopted baseline amount. The full report, including any recommended adjustment to the rate of burials, shall be reviewed and approved by the County Planning Office.</p>	
<p>Impact 4.4-5: Cumulative nitrate loading. Analysis of cumulative groundwater effects indicate that nitrate concentrations would be below the MWQB value of 5 mg/L groundwater quality target established by the Central Coast RWQCB for the Llagas Subbasin. The cumulative impact would be less than considerable.</p>	LTC	No additional mitigation is required.	LTC
<p>4.5 Noise</p>			
<p>Impact 4.5-1: Short-term construction-related noise impacts. Project construction activities would involve the use of heavy construction equipment that generates noise. Based on the noise modelling conducted, construction activities could result in maximum noise levels of approximately 94 dBA Lmax at 50 feet. Stationary equipment, such as a generator would typically generate maximum noise levels of 82 dBA at 50 feet. Based on the construction noise modeling, nearby sensitive receptors are located at a distance from the construction activities that mobile source noise levels would not exceed Santa Clara County standards of 75 dBA Lmax for mobile equipment. However, noise levels of stationary equipment could potentially exceed the County standard of 60 dBA Lmax. This impact would be potentially significant. With implementation of mitigation regarding the</p>	PS	<p>Mitigation Measure 4.5-1: Implement stationary-source construction-noise reduction measures. To minimize stationary-source noise levels during construction activities, all grading and improvement plans shall state that all stationary construction equipment (i.e., generators and air compressors) shall be located at least 25 feet from the western and southern project property lines. The applicant shall ensure that this requirement is implemented by all contractors.</p>	LTS

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location of noise-generating stationary equipment, this impact would be less than significant.			
<p>Impact 4.5-2: Short-term construction-related vibration impacts.</p> <p>Project construction activities would involve the use of heavy construction equipment which may include large dozers. Thus, large dozers would potentially be the greatest source of ground vibration. The closest sensitive receptor is located 400 feet away from the nearest project site boundary. Based on reference ground vibration and noise levels, large dozer activities would not exceed the recommended levels for structural damage or human disturbance at the nearby structures. This impact would be less than significant.</p>	LTS	No mitigation is required.	LTS
<p>Impact 4.5-3: Long-term project-related traffic noise increase.</p> <p>Traffic generated by the project would not result in a substantial increase (i.e. 5 dB) in traffic noise on Monterey Road. This level of noise increase would not be perceptible to the human ear and, therefore, would not be considered a substantial increase in noise. This impact would be less than significant.</p>	LTS	No mitigation is required.	LTS
<p>Impact 4.5-4: Long-term increase in noise levels from on-site sources.</p> <p>Operational noise sources associated with implementation of the project would include indoor activities (daily prayer, youth Sunday classes, potluck dinners, special events) and outdoor activities (annual youth summer camp, playground activities, parking lot activities), which would be limited to daytime and evenings. Amplified outdoor sound and outdoor call to prayer are not proposed. During daytime hours, noise generated by the project would not exceed County daytime exterior noise standards. However, dawn and nighttime prayers would occur before 7:00 a.m. and after 10:00 p.m. respectively; therefore, the County's nighttime noise standard would apply. Project-generated on-site noise associated with parking lot activity could exceed the nighttime noise standard measured at the residential property line. Because the adjacent residential properties have large rear yards, residents would not typically be outside near the property line before 7:00 a.m. and after 10:00 p.m. Also, because the project would not generate noise that would exceed interior noise standards, the project would not result in a substantial increase in ambient noise levels that would adversely affect existing noise-sensitive receptors. However, because the noise level could slightly exceed the County's nighttime exterior noise standard at the residential property line, the impact is considered potentially significant.</p>	PS	<p>Mitigation Measure 4.5-4: Install Signage to Restrict Parking in Western Parking Lot.</p> <p>To prevent exceedance of the County's nighttime noise standard, the applicant shall install parking lot signage that prohibits parking after 10:00 p.m. or before 7:00 a.m. Signage shall be clearly posted at spaces within 120 feet of the western property line. No parking restriction is required for spaces farther than 120 feet from the property line. The applicant shall be responsible for enforcing the parking restriction.</p>	LTS

NI = No impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable, LTC = Less than considerable contribution, LTCM = Less than considerable with mitigation

Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>Impact 4.5-5: Contribution to cumulative short-term construction generated noise. The project's contribution to short-term construction noise would be within County noise standards and less-than-significant after compliance with Mitigation Measure 4.5-1. It is unlikely that other nearby construction activities would cumulatively combine with the project. Thus, the project's short-term construction-generated noise would not result in a substantial contribution such that a new significant cumulative construction noise impacts would result. The project's contribution to the short-term construction noise impact would be less than considerable.</p>	LTCM	No additional mitigation is required.	LTC
<p>Impact 4.4-6: Contribution to cumulative long-term operational noise levels. The site for a proposed RV park is located adjacent to the project site. However, similar to the proposed Cordoba Center and other residential uses nearby, the proposed recreational/residential use is not typically a high noise generating use (the RV Park would operate between 8:00 a.m. and 7:00 p.m., with generator use between 10:00 a.m. to 8:00 p.m. and would require quiet hours after 10:00 p.m. until 7:00 a.m.), and noise from operation of both of these low-noise-generating projects simultaneously would not combine in a manner that would exceed noise thresholds. A segment of HST is also located near the site, near Monterey Road. Future project-related traffic noise levels would not result in a substantial increase in noise levels (i.e., less than 1 dB) on Monterey Road. Furthermore, the employee and visitor trips added to affected roadways would occur during typical business hours of the day when people are less likely to be disturbed by traffic noise. Therefore, noise generated from project operation would not result in a considerable contribution to a significant cumulative noise impact; the impact would be less than considerable.</p>	LTC	No additional mitigation is required.	LTC
<p>4.6 Transportation and Circulation</p>			
<p>Impact 4.6-1: Conflict with an applicable plan, ordinance, policy, or program; substantially increase hazards because of a design feature or incompatible use; or result in inadequate emergency service during construction. Traffic generated during construction of the Cordoba Center would be attributable to delivery trucks and construction workers' trips to and from the site. These trips would be temporary and would occur over a roughly 4-year period. All roadways and intersections affected by construction traffic are operating at acceptable LOS. This impact would be potentially significant. With implementation of the recommended mitigation measures, this impact would be less than significant.</p>	PS	<p>Mitigation Measure 4.6-1: Construction Traffic Control Plan. Prior to building and grading permit approval, the applicant shall submit to the Department of Roads and Airports a construction traffic control plan that shall:</p> <ul style="list-style-type: none"> ▲ restrict all ingress/egress at the construction entrance to right-in and right-out turns only; ▲ provide for the appropriate control measures, including barricades, warning signs, speed control devices, flaggers, and other measures to mitigate potential traffic hazards; and 	LTS

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Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<ul style="list-style-type: none"> ▲ ensure coordination with emergency response providers to provide sufficient emergency response access for the surrounding area. 	
<p>Impact 4.6-2: Conflict with an applicable plan, ordinance, policy, or program during operation. Monterey Road would operate at LOS B with the addition of traffic generated by the Cordoba Center. Based on the limited effects on LOS on Monterey Road at the project driveway, the project would be unlikely to generate traffic volumes warranting signalization of nearby intersections. The project would have a less-than-significant impact to the LOS of the surrounding roadway system.</p>	LTS	No mitigation is required.	LTS
<p>Impact 4.6-3: Substantially increase hazards because of a design feature or incompatible use, or result in inadequate emergency access during operation. The County Department of Roads and Airports reviewed the proposed site plan and determined that access improvements are needed to ensure adequate line of sight, maintain flow of traffic, and prevent traffic hazards associated with vehicles accessing and leaving the site. Without implementation of access and roadway improvements, the project would result in a potentially significant impact. With implementation of the recommended mitigation measures during the final design process, this impact would be less than significant.</p>	PS	<p>Mitigation Measure 4.6-3: Traffic safety improvements to site plans Prior to building and grading permit approval, the following amendments shall be made to the final designs of the project and approved by the County Department of Roads and Airports:</p> <ul style="list-style-type: none"> ▲ The project applicant shall demonstrate that landscaping, as detailed on landscape plans for Planning approval, does not encroach into the sight distance triangle (a triangle formed between the location where the driver makes the decision to exit the driveway [decision point], the location of the approaching vehicle on Monterey Road, and the location where the two vehicles would intersect). ▲ The project applicant shall construct a deceleration lane on the southbound side of Monterey Road leading to the project driveway. ▲ The project applicant shall construct, an acceleration lane on the southbound side Monterey Road leading from project driveway. ▲ The project applicant shall submit a queuing analysis to determine the length of the left turn pocket at California Avenue needed to accommodate the number of northbound vehicles exiting the project site during peak hours. The applicant shall construct this improvement. ▲ A stop sign shall be required where the driveway intersects with Monterey Road. 	LTS
<p>Impact 4.6-4: Conflict with existing plans and policies regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The project would not conflict with existing plans and policies regarding public transit,</p>	LTS	No mitigation is required.	LTS

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Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. This impact would be less than significant.			
<p>Impact 4.6-5: Contribution to cumulative roadway level of service. With cumulative traffic volumes, Monterey Road at the project driveway would operate at an acceptable level of service. The project's contribution, after implementation of mitigation, to a cumulative impact on traffic volumes would be less than considerable.</p>	LTC	No mitigation is required.	LTC
<p>Impact 4.6-6: Contribution to cumulative roadway safety hazards. With implementation of Mitigation Measure 4.6-3, the proposed Cordoba Center project driveway would be operated safely in conjunction with the driveway of the proposed RV park adjacent to the project site. The proposed project's contribution to a cumulative impact to traffic hazards is less than considerable.</p>	LTCM	No additional mitigation is required.	LTC
<p>4.7 Greenhouse Gas Emissions and Energy</p>			
<p>Impact 4.7-1: Project-generated greenhouse gas emissions. Project-related construction would generate approximately 319 MT CO₂e and project operation would generate approximately 1,165 MT CO₂e per year at project buildout in 2021. This level of GHG emissions would result in a significant impact and a considerable contribution to cumulative emissions related to global climate change, and conflict with State GHG reduction targets established for 2030 and 2050. Mitigation is recommended, including emissions reduction, energy efficiency, renewable energy, and carbon credit purchase that minimize this impact. However, because of the current uncertainty over what the applicable threshold is for a project of this type due to the transition in regulatory standards, and given uncertainty over whether GHG reductions through current offset programs are reliable and verifiable, it cannot be guaranteed that the project would not generate GHG emissions that conflict with CARB's proposed 2017 Scoping Plan Update and the established statewide GHG reduction targets it is designed to achieve. Therefore, this impact would remain significant and unavoidable and would constitute a considerable contribution to a cumulative impact after mitigation.</p>	S	<p>Mitigation Measure 4.7-1: Prepare and implement GHG-reduction plan. Prior to issuance of grading or building permits for project, the project applicant shall hire a qualified GHG specialist to prepare and submit to the County Planning Department a GHG-reduction plan to calculate final emissions from construction and operations and propose quantifiable strategies to ensure that the project-related incremental increase of GHG emissions do not exceed the 2030 threshold of 2.8 MT of CO₂e/year/service population. If at the time the GHG-reduction plan is being prepared BAAQMD has completed updating its CEQA Guidelines and the County Planning Office, in consultation with BAAQMD, determines that those guidelines include a project-level GHG threshold that is more appropriate for this project, the County Planning Office may approve use of that BAAQMD project-level GHG threshold from the updated guidelines in place of the threshold used in this EIR (2030 threshold of 2.8 MT of CO₂e/year/service population). Any revision to the project-level GHG threshold will be made after public notice and an administrative hearing. The GHG-reduction plan may include, but not be limited to, the following measures: <u>Construction-phase GHG Reduction Measures</u></p> <ul style="list-style-type: none"> ▲ To the extent feasible, all diesel-powered construction equipment shall be fueled with renewable diesel fuel. The renewable diesel fuel must be compliant with California's Low Carbon Fuel Standards. This measure does not apply to haul trucks with on-road engines that are used to carry equipment and materials to and from the construction site and other vendor trips because the selection and operation of these trucks are not in 	SU

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Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>control of the contractor. Feasibility shall be determined by the County in coordination with the applicant and the qualified GHG specialist.</p> <ul style="list-style-type: none"> ▲ Implement a construction-worker carpool and transit program to encourage construction workers to carpool and use public transit to commute to and from the project site. This measure applies only to workers who will work at the site five or more consecutive work days. The program shall include a virtual or physical “ride board” for workers to organize car pools. The program shall also reimburse workers for any expenses they incur from using local public transit to commute to the construction site. ▲ Install a temporary electric power connection at the construction site to power any electric power equipment used during project construction (e.g., welders, lights) in lieu of any stationary generators powered by fossil fuels. <p><u>On-site Operational GHG Emission Reduction Measures</u></p> <ul style="list-style-type: none"> ▲ Implement a travel demand management program to increase carpool options and transit use to decrease GHG emissions from vehicle trips. ▲ Install solar panels in appropriate locations on the site. Appropriate locations are not limited to rooftops but shall be limited to areas with impervious surfaces. Specific placement and appearance of solar panels shall be selected to integrate tastefully into the design and to minimize conspicuous visibility from public roads and shall comply with all applicable design guidelines. The locations and quantity of panels will be determined by the County in coordination with the applicant and the GHG specialist. ▲ Install electric tankless and/or rooftop solar water heating system(s). ▲ Install all Energy Star®-certified appliances (if an Energy Star®-certified model of the appliance is available). Energy Star®-certified appliances are listed on EPA’s website: https://www.energystar.gov/products?s=footer (EPA 2017). If EPA’s Energy Star® program is discontinued before appliances and fixtures are selected, then this measure shall not be required. ▲ Install high-efficiency lighting (i.e., LED) for all exterior and interior lighting needs. ▲ Provide electrical outlets at the exterior of all project buildings and in 	

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Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>outdoor activity areas to allow sufficient powering of electric landscaping equipment and special equipment used during outdoor events (e.g., community picnics, summer camps).</p> <ul style="list-style-type: none"> ▲ Use water-efficient irrigation systems (i.e., drip systems with smart irrigation meters) and landscaping techniques/design. ▲ Only use drought tolerant plants in landscaped areas (does not apply to orchard area). ▲ If feasible, install a grey water system to irrigate outdoor landscaping and/or to use for indoor non-potable water uses. ▲ To reduce landfill waste generated during operation of the project, include separate recycling and waste containers to support recycling collection service. ▲ Include any other GHG reduction measures that the applicant deems feasible and approved by County staff. <p>Because mobile sources (vehicle trips) would constitute the majority of GHG emissions, and it is anticipated that the project proponent would be unable to reduce the operations-related incremental increase of GHG emissions to below the threshold of 2.8 MT of CO₂e/year/service population using the above measures, the project proponent shall offset all remaining incremental emissions above that threshold. Any offset of operational emissions shall be demonstrated to be real, permanent, verifiable, enforceable, and additional. To the maximum extent feasible, as determined by the County in coordination with the BAAQMD, offsets shall be implemented locally. Offsets may include but are not limited to, the following (in order of preference):</p> <ul style="list-style-type: none"> ▲ Funding of local projects, subject to review and approval by the BAAQMD, that would result in real, permanent, verifiable, enforceable, and additional reduction in GHG emissions. If the BAAQMD or County of Santa Clara develops a GHG mitigation fund, the County may instead pay into this fund to offset project incremental GHG emissions in excess of the significance threshold. ▲ Purchase of carbon credits to offset project incremental emissions to below the significance threshold. Carbon offset credits must be verified and registered with The Climate Registry, the Climate Action Reserve, or other source that is approved by the California Air Resources Board as being consistent with the policies and guidelines of the California Global 	

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Table 1-2 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		Warming Solution Act of 2006 (AB 32), or available through a County- or BAAQMD-approved local GHG mitigation bank or fund.	
<p>Impact 4.7-2: Wasteful, inefficient, or unnecessary consumption of energy, during project construction or operation.</p> <p>The project would increase electricity and natural gas consumption at the site relative to existing conditions. The project would be required to meet the California Code of Regulations Title 24 standards for building energy efficiency. Implementation of mitigation measures addressing GHGs and transit needs would also improve the energy efficiency of the project. Construction energy consumption would be temporary and would not require additional capacity or increased peak or base period demands for electricity or other forms of energy. The project would not result in wasteful, inefficient, or unnecessary consumption of energy. Thus, the impact would be less than significant.</p>	LTS	No mitigation is required.	LTS

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2 INTRODUCTION

This draft environmental impact report (EIR) describes the potential environmental impacts of the proposed Cordoba Center Project. The California Environmental Quality Act (CEQA) requires that state and local government agencies consider the environmental effects of projects over which they have discretionary authority before approving those projects. The purpose of an EIR is to evaluate the project's effects on the physical environment, both individual project effects and cumulative environmental impacts, as well as to examine a reasonable range of alternatives to the project and identify feasible mitigation measures to reduce or avoid potentially significant effects. Projects resulting in significant and unavoidable environmental impacts that cannot be feasibly mitigated to less-than-significant levels may be approved if lead agency's decision-maker for the project (i.e., County of Santa Clara Planning Commission) adopts a "statement of overriding considerations" explaining, in writing, the specific economic, legal, social, technological, or other considerations that outweigh those significant effects (Public Resources Code [PRC] Section 21002; California Code of Regulations [CCR], Title 14 (State CEQA Guidelines), Section 15093).

This document has been prepared in compliance with CEQA (PRC Sections 21000-21189) and the State CEQA Guidelines (CCR, Title 14, Sections 15000-15387).

2.1 AGENCY ROLES AND RESPONSIBILITIES

The lead agency is the public agency with the principal responsibility for carrying out or approving a project. The lead agency is also responsible for scoping the analysis, preparing the EIR, and responding to comments received on the Draft EIR. Prior to making a decision to approve a 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 its independent judgment. The County of Santa Clara is the lead agency for the evaluation of the Cordoba Center Project.

Responsible agencies are other public agencies that also have discretionary approval power over the project after approval by the lead agency.

2.1.1 Discretionary Actions and Use of this EIR

A number of permits and approvals, including discretionary actions, are listed in Table 2-1 and would be required before development of the project could proceed. As lead agency for the proposed project, Santa Clara County would be responsible for the majority of approvals required for the development. Where other agencies have authority related to the project and its approvals, these agencies may use this EIR when considering required permits and approvals.

Table 2-1 Required Discretionary Permits and Approvals

Agency	Permit/Approval
County of Santa Clara	Use Permit, Architecture and Site Approval, Grading Approval, and Cemetery Permit, Onsite Wastewater Treatment System Approval, Encroachment Permit
Central Coast Regional Water Quality Control Board	National Pollutant Discharge Elimination System Permit

Source: Data Compiled by Ascent Environmental

2.2 FEATURES OF THIS DRAFT EIR

2.2.1 Purpose of the Draft EIR

In accordance with CEQA and the State CEQA Guidelines, public agencies must prepare an EIR to evaluate the potential environmental consequences of development and operation of proposed projects that could significantly affect the environment. The EIR process is specifically designed to objectively evaluate and disclose potentially significant direct, indirect, and cumulative environmental impacts of a proposed project; to identify a reasonable range of alternatives that could reduce or eliminate a project's significant effects; and to identify feasible measures that mitigate significant environmental effects. In addition, CEQA requires that an EIR identify those adverse impacts that remain significant after mitigation. The purpose of an EIR is not to recommend approval or denial of a project, but to provide decision-makers, public agencies, and the general public with information about the environmental impacts of a project.

2.2.2 Type of EIR

This document is a project EIR. As described in Section 15161 of the CEQA Guidelines, this type of EIR is used to evaluate the changes to the physical environment that would result from all phases (including planning, construction, and operation) of a project.

2.2.3 Scope of the Draft EIR

Pursuant to CEQA and the State CEQA Guidelines, a lead agency shall focus the EIR's discussion on significant environmental effects and may limit discussion of other effects to brief explanations about why they are not significant (PRC Section 21002.1, State CEQA Guidelines Section 15143). Furthermore, the EIR must also discuss the manner in which significant impacts can be feasibly mitigated or avoided.

This EIR addresses the following technical issue areas:

- ▲ Aesthetics;
- ▲ Biological Resources;
- ▲ Cultural Resources;
- ▲ Hydrology and Water Quality;
- ▲ Noise;
- ▲ Transportation and Circulation; and
- ▲ Greenhouse Gas and Energy.

TECHNICAL ISSUES NOT ADDRESSED FURTHER

A lead agency is not required to provide a detailed discussion of the environmental effects that would not be significant, and may instead provide a brief statement indicating the reasons an impact was determined not to be significant and is not discussed in detail in the EIR. Such a statement may be included in an Initial Study (IS) attached to an EIR (CEQA Statutes Section 21100, CEQA Guidelines Sections 15126.2[a] and 15128). An IS was prepared to determine the appropriate scope of the EIR. Based on the analysis included in the IS, the project would not result in significant environment effects associated with the following resources.

- ▲ Agriculture and Forest Resources,
- ▲ Air Quality,
- ▲ Geology and Soils,
- ▲ Hazards and Hazardous Materials,

- ▲ Land Use and Planning,
- ▲ Population and Housing,
- ▲ Public Services,
- ▲ Recreation,
- ▲ Tribal Cultural Resources, and
- ▲ Utilities and Service Systems.

Please see the IS, included as Appendix A, for the detailed analysis of these resources.

2.2.4 Organization of the Draft EIR

The remainder of this document includes a detailed description of the proposed project, analysis of potential environmental impacts that could result from project implementation, discussion of cumulative and growth-inducing impacts, and evaluation of potential alternatives to the proposed project. This information is organized as detailed below.

Chapter 3: Project Description describes the location of the project, the project background, existing conditions on the project site, and the nature and location of specific elements of the proposed project.

Chapter 4: Affected Environment, Environmental Consequences, and Mitigation Measures includes a topic-by-topic analysis of impacts that would or could result from project implementation. The analysis is organized in seven topical sections. Each section includes a discussion of the environmental and regulatory setting, impact analysis, and mitigation measures.

Chapter 5: Additional Analysis includes a discussion of growth inducement and significant unavoidable adverse impacts.

Chapter 6: Project Alternatives describes feasible alternatives to the proposed project, including the no project alternative, describing the consequences of taking no action.

Chapter 7: References lists all documents and other informational resources cited and used throughout the Draft EIR.

Chapter 8: Report Preparation identifies preparers of the Draft EIR.

The **Appendices** contain a number of reference items providing support and documentation of the analyses performed for this report.

2.2.5 Baseline Conditions

According to Section 15125 of the State CEQA Guidelines, baseline conditions are normally defined as the physical environmental conditions in the vicinity of the project as they exist at the time that the notice of preparation (NOP) is published. Therefore, for the purposes of this document, the baseline conditions are the conditions that existed in the project vicinity as of December 2016. This baseline condition was used as the basis for determining the significance of impacts.

2.2.6 Significance Criteria

The significance criteria used in Chapter 4, “Affected Environment, Environmental Consequences, and Mitigation Measures,” to evaluate potential impacts of the proposed project are derived from the questions presented in Appendix G, “Environmental Checklist Form,” of the State CEQA Guidelines.

2.2.7 Definition of Terms

To assist in the understanding of this report, the following definitions, as found in Article.20 of the State CEQA Guidelines, are provided:

- ▲ “Project” means the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment directly or ultimately.
- ▲ “Significant effect on the environment” 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.
- ▲ “Environment” means the physical conditions that exist within the area which will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved shall be the area in which significant effects would occur either directly or indirectly as a result of the project. The “environment” includes both natural and man-made conditions.
- ▲ “Effects” and “impacts,” as used in this document, are synonymous. Effects analyzed under CEQA must be related to a physical change. Effects include:
 - direct or primary effects that are caused by the project and occur at the same time and place, and
 - indirect or secondary effects that are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.
- ▲ “Mitigation” includes:
 - avoiding the impact altogether by not taking a certain action or parts of an action;
 - minimizing impacts by limiting the degree or magnitude of the action and its implementation;
 - rectifying the impact by repairing, rehabilitating, or restoring the impacted environment;
 - reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or
 - compensating for the impact by replacing or providing substitute resources or environments.
- ▲ “Cumulative impacts” refers to two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts. The cumulative impact is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

This Draft EIR uses a variety of terms to describe the level of significance of adverse impacts identified during the course of the environmental analysis. These terms are defined below.

- ▲ A “less-than-significant impact” is an impact that is adverse but not substantial, such that it does not exceed the defined standards of significance. Less-than-significant impacts do not require mitigation.
- ▲ A “significant impact” is an impact that exceeds the defined standards of significance and would or could cause a substantial adverse change in the environment. Feasible mitigation measures are recommended to eliminate a significant impact or reduce it to a less-than-significant level, and the reasonable range of alternatives presented in the EIR are evaluated to determine if they would reduce significant impacts.
- ▲ A “potentially significant impact” is a significant environmental impact that is reasonably foreseeable, but with some degree of uncertainty. A potentially significant impact is equivalent to a significant impact in terms of its treatment under CEQA and requires the identification of feasible mitigation measures or alternatives.
- ▲ A “significant and unavoidable impact” is an impact that exceeds the defined standards of significance and cannot be eliminated or reduced to a less-than-significant level through the implementation of mitigation measures.

2.3 PROJECT REVIEW AND CEQA PROCESS

Public input is an important aspect of the County’s environmental review process. In accordance with State CEQA Guidelines Section 15083, the County provides opportunities for individual members of the public, as well as organization and agency representatives, to consider proposed actions and provide input and recommendations concerning the content of an EIR. The following sections summarize the public involvement efforts conducted by the County.

2.3.1 EIR Scoping

Santa Clara County prepared and distributed an NOP for this EIR on December 12, 2016. The NOP provided a brief description of the project, a map of the project location, list of probable environmental effects, and an overview of the environmental review process. The purpose of the NOP was to provide notification that an EIR for the project would be prepared and to solicit guidance on the scope and content of the document. The NOP invited all interested parties to provide comments during a 30-day period. The NOP was mailed to responsible and trustee agencies, and to interested individuals and organizations, including property owners and/or residents within the vicinity of the project site. The NOP was also filed with the State Clearinghouse and County Recorder-Clerk’s Office, and was posted on Santa Clara County’s website. In response to public comments, the NOP review period was extended on January 25, 2017 to February 15, 2017, for a total 65-day comment period.

2.3.2 Public Review of the Draft EIR

The County is providing notice of the availability of the Draft EIR for public review and inviting comment from the general public, agencies, organizations, and other interested parties through submittal of a Notice of Availability to the State Clearinghouse and County Recorder-Clerk’s Office. The County is also posting a legal notice in a local newspaper and is mailing notice to adjacent property owners. Copies of the Draft EIR will be available at the following locations:

County of Santa Clara
Department of Planning and Development
Planning Office
County Government Center, East Wing, 7th Floor
70 West Hedding Street
San Jose, CA 95110-1705

Morgan Hill Library
660 W Main Ave, Morgan Hill, CA 95037

The Draft EIR is also available electronically at: <https://www.sccgov.org/sites/dpd/Pages/DPD.aspx>

The public review and comment period will be 60 days, from May 30, 2018 to July 30, 2018. Written comments on the Draft EIR must be submitted prior to the close of the comment period. All comments or questions regarding the Draft EIR should be addressed to:

County of Santa Clara
Department of Planning and Development
Attention: Chris Hoem
County Government Center
70 West Hedding Street, San Jose, CA 95110
Email: CordobaEIRComments@pln.sccgov.org

Following the public review period, a Final EIR will be prepared that will include comments on the Draft EIR received during the public review period and the County's responses to significant environmental points raised in those comments. The Final EIR will address any revisions to the Draft EIR made in response to public comments. The Draft EIR and Final EIR together will comprise the EIR for the lead agency to consider when taking action on the proposed project.

2.3.3 Final EIR Certification Process

Before the County of Santa Clara can approve the project, it must first certify that the EIR was 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 County. The County will also be required to adopt findings describing the disposition of each significant impact and alternatives. For any impacts determined to be significant and unavoidable, the County will be required to adopt a Statement of Overriding Considerations before it may approve the project. Certification of the EIR does not constitute approval of the project, and the County will consider approval and permitting of the project separately. If the EIR is certified and the project is approved, the County would also be required to adopt a Mitigation Monitoring and Reporting Plan that specifies the methods for monitoring and enforcing mitigation measures required to eliminate or reduce the project's significant effects on the environment.

2.4 AREAS OF POTENTIAL CONTROVERSY

The NOP and comments received in response to the NOP are included in Appendix B of this Draft EIR, and listed below in Table 2-2.

Table 2-2 List of Commenters in Response to the Notice of Preparation

Commenter	Affiliation	Date of Comment
State Agencies		
Patricia Maurice, District Branch Chief	California Department of Transportation	1/23/2017
Local Agencies		
Michael Hettenhausen, Associate Planner	Santa Clara County Parks and Recreation Department	1/13/17
Roy Molseed, Senior Environmental Planner	Santa Clara Valley Transportation Authority	1/23/17
Yvonne Arroyo, Associate Engineer	Santa Clara Valley Water District	1/23/17
Organizations		
Shani Kleinhaus	Santa Clara Valley Audubon Society	2/23/2017
Shani Kleinhaus and Julie Hutcheson	Santa Clara Valley Audubon Society and Committee for Green Foothills	2/14/2017
Trina Hineser	San Martin Neighborhood Alliance	1/20/2017 and 2/14/2017
Individuals		
Carol Neal		1/18/2017
Connie Ludewig		2/9/2017 and 2/10/2017
Dawn Peru		1/22/2017
Diane Kelly		2/15/2017
Donald Harley		2/15/2017
Donna Rosemont		1/21/2017
Donnie and Jeanine Croft		2/15/2017
Georgina Spatola		2/3/2017
Georgine Scott-Codiga		2/14/2017
Janette Dass		1/23/2017
Joe Cambareri		2/15/2017
John English		1/17/2017
Karen Gebura		1/23/2017
Karen Harley		2/3/1017
Katy Escobedo		1/21/2017
Kenny, WB & Lynn LLC		2/8/2017
Lisa Voss		1/16/2017
Martin Groen (on behalf of the RJ Groen Trust)		2/13/2017
Mei Sun		1/14/2017
Noshaba Afzal		2/1/2017 and 2/6/2017
Pat Caldwell		1/26/2017, 2/1/2017, and 2/7/2017
Philip Coop		2/15/2017
Rachel Mansfield-Howlett, Provencher & Flatt, LLP (on behalf of the Village of San Martin and neighboring unincorporated areas)		2/15/2017
Rick Llanes		1/20/2017
Rick Spohn		1/23/2017
Susan Mister		1/22/2017

The following provides a summary of issues raised through scoping and comments on the NOP that could be considered controversial.

- ▲ adequate access to infrastructure, including sewer and water;
- ▲ increased traffic;
- ▲ local drainage and flooding;
- ▲ effects of the proposed cemetery on groundwater quality;
- ▲ land use compatibility; and
- ▲ the combined effects of the proposed project and the proposed Patel RV Park, which is adjacent to the proposed Cordoba Center project site.

3 PROJECT DESCRIPTION

3.1 INTRODUCTION

The project applicant, South Valley Islamic Center (SVIC), proposes to develop the Cordoba Center, a multi-use religious and cultural center to serve the Muslim community of South Santa Clara Valley on a 15.8-acre site on Monterey Road within the unincorporated community of San Martin. The primary structures proposed include a two-story mosque and a two-story community center building, which would both be located on the southern portion of the project site, facing south (toward California Avenue). The western portion of the site would be used as a cemetery. A caretaker's residence and orchard would be located along Monterey Road.

3.2 PROJECT SITE

3.2.1 Location and Surrounding Land Uses

The Cordoba Center project is proposed to be located west of U.S. Highway 101 within the community of San Martin in southern Santa Clara County (Exhibit 3-1). The 15.8-acre site (APN: 779-06-002) abuts Monterey Road, just north of the intersection with California Avenue, at 14065 Monterey Road (Exhibit 3-2). Generally, land uses to the south and west of the project site consist of rural residences and associated farming practices, and land to the east is developed for industrial uses (Exhibits 3-3a and 3-3b). The site is currently vacant and the parcel south of the site has been recently farmed (Exhibits 3-4a and 3-4b). The area north of the site is County-owned parkland¹ associated with Llagas Creek. The San Martin Airport, a general aviation airfield operated by the County of Santa Clara, is located approximately 1 mile southeast of the site, adjacent to U.S. Highway 101. The industrial land uses east of Monterey Road are separated from the site by the Union Pacific Railroad tracks that parallel the eastern side of the road.

The County General Plan designates the site Rural Residential. The eastern half of the site is zoned A1 (General Use) and the western half of the site is zoned RR (Rural Residential). The site is within the County's San Martin Planning Area.

3.2.2 Site Characteristics

The site is currently vacant. An east-west trending bedrock ridge, underlain by volcanic rock, spans the northern boundary of the project site. Llagas Creek is located on the north side of this ridge and flows east, crossing under Monterey Road. The bedrock ridge forms a barrier that prevents surface water in the creek from recharging groundwater on the site (Wire 2012). Although Llagas Creek is located on the parcel immediately north of the project site, because of its topography, the project site is not located in a flood hazard zone. On-site stormwater sheet-flows to the south-southwest, away from the northern property boundary and Llagas Creek. Most of the site is currently grassland; there are several scattered oak trees on the slope above Llagas Creek. A large eucalyptus and a valley oak are located near the center of the site. Measured depth to groundwater beneath the project site ranged from 18 to 26 feet below ground surface (Questa 2017).

¹ The approximately 52-acre property is owned by the County of Santa Clara Parks and Recreation Department and is known as Lake Silveira. The property is predominately linear bordering Llagas Creek and an 8-acre man-made lake in the center of the park. This property is currently closed to the public. In 1989 a Master Plan for Lake Silveira was prepared and approved by the City of Morgan Hill and subsequently approved by the County of Santa Clara Board of Supervisors.



Source: Ascent Environmental 2016

Exhibit 3-1

Cordoba Center Project Vicinity





Exhibit 3-2

Cordoba Center Project Site Location





Source: Ascent Environmental 2017

Exhibit 3-3a

Land Use West of the Project Site



Source: Ascent Environmental 2017

X15010024 01/004

Exhibit 3-3b

Land Use Southeast of the Project Site





Source: Ascent Environmental 2017

Exhibit 3-4a

**View of Project Site (Adjacent Property in the Foreground),
Looking North from California Avenue**



Source: Ascent Environmental 2017

X15010624 01 003

Exhibit 3-4b

Land Uses South of the Project Site



HISTORICAL USE OF THE PROJECT SITE

A single-story residence was constructed on the northern portion of the site prior to 1939. A secondary single-story structure was constructed on the southern portion of the property between 1939 and 1956 (Indus-West Development 2006). Both structures were previously removed from the site, and the site is currently vacant.

The site has previously been used for agriculture. In 1939, aerial photography shows that most of the southern half of the parcel was developed as an orchard. In 1956, the orchard had been reduced to a small area central to the eastern half of the site; the remainder of the site appeared to be cultivated with row crops at that time. The orchard was fully removed by 1987, and agricultural use of the property ceased thereafter.

3.3 PROPOSED PROJECT

As described further below and illustrated in Exhibit 3-5, proposed Cordoba Center facilities would include a mosque, multi-use community building, a cemetery, an area for youth summer camps, and additional supporting and ancillary structures.

3.3.1 Purpose and Need

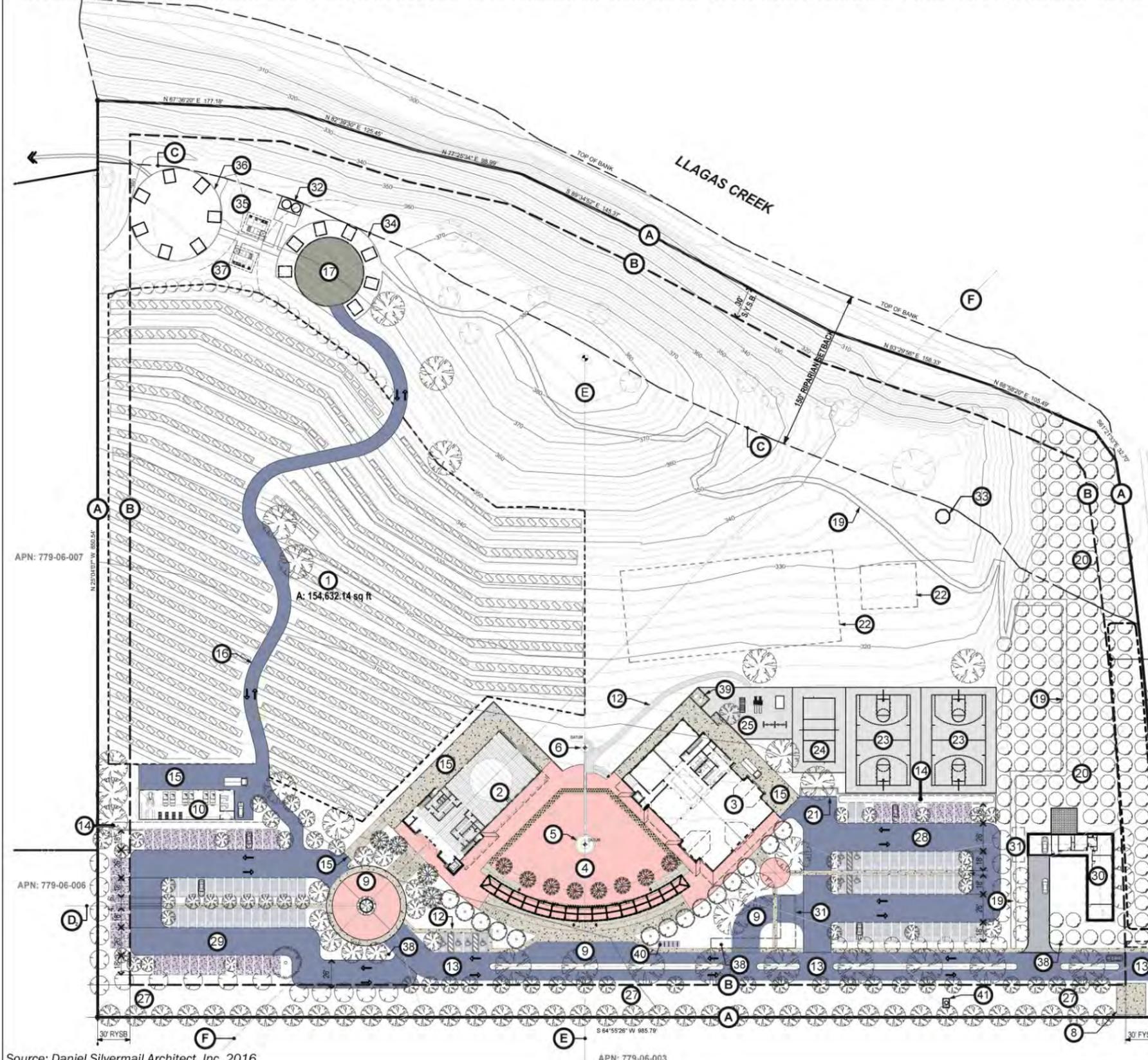
According to the project proponents, the religious and cultural needs of South Santa Clara Valley's multi-ethnic Muslim community are not being met by existing dedicated facilities. The nearest formal place of worship is the South Bay Islamic Association's mosque in downtown San José. The nearest Islamic cemetery is in the City of Livermore, which is approximately 60 miles from the South Valley.

Membership in the SVIC has grown from 10 families in 1999 to about 100 families or 400 members assuming an average family size of four persons in 2017. The Cordoba Center project is proposed to provide an Islamic worship and cultural center for Muslim residents in the southern portion of the Santa Clara Valley.

3.3.2 Project Objectives

The State CEQA Guidelines require that an EIR include a statement of objectives for the project, and that the objectives include the underlying purpose of the project. These objectives help the lead agency determine the alternatives to evaluate in the EIR (see CEQA Guidelines Section 15124[b]). Specific project objectives, as stated by the project proponent, include the following:

- ▲ provide a financially self-sustaining religious and cultural facility for members of the Muslim faith who reside in the South Santa Clara County area, including the cities of Gilroy and Morgan Hill;
- ▲ meet the worship and social support needs of local Muslim residents of all ages;
- ▲ provide a mosque for worship and related spiritual services; a cemetery for internment of deceased members of the congregation; a separate community building for social and educational activities; and necessary support uses, including a caretaker's dwelling and a maintenance building;
- ▲ develop adequate space to accommodate religious activities and administrative functions of the facility while respecting and preserving the natural aesthetic and heritage of the site;



LEGEND

- ① Cemetery
- ② Mosque of The Cordoba Center
- ③ Community Building
- ④ Community Plaza
- ⑤ Fountain of the Community
- ⑥ Fountain of Memory
- ⑦ Landscape Berm
- ⑧ Utility/ service entry
- ⑨ Drop Off Area
- ⑩ Maintenance Building
- ⑪ Proposed Public Sidewalk
- ⑫ Site Accessible Path
- ⑬ Public Vehicular Access
- ⑭ Biofiltration Swale
- ⑮ Service Driveway
- ⑯ Cemetery Driveway/ Fireroad
- ⑰ Hearse/ Firetruck Turnaround
- ⑱ Path to Atherton Pond (existing)
- ⑲ Hiking Trail
- ⑳ Orchard
- ㉑ Solid Waste Service Area
- ㉒ Wastewater Treatment Area
- ㉓ Basketball Court
- ㉔ Volleyball Court
- ㉕ Playground
- ㉖ Stormwater Ret. Chamber
- ㉗ Biofiltration & Retention Swale
- ㉘ Parking Lot 'A'
- ㉙ Parking Lot 'B'
- ㉚ Caretaker Residence
- ㉛ Wastewater Processing System
- ㉜ Water Storage Tanks
- ㉝ Ramada
- ㉞ Girl's Tent Camp
- ㉟ Girl's Bathhouse
- ㊱ Boy's Tent Camp
- ㊲ Boy's Bathhouse
- ㊳ Fire Hydrant
- ㊴ HVAC Vault
- ㊵ Bicycle Racks
- ㊶ (E) abandoned/ (N) irrig well

REGULATING LINES

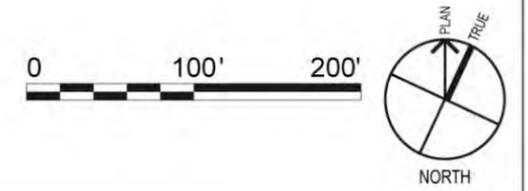
- (A) Property line
- (B) Setback line
- (C) Riparian Setback line
- (D) Line of the Ordinary
- (E) Line of Nature
- (F) Line of the Qiblah

MATERIALS KEY

- CONCRETE
- AGGREGATE BASE (AB) SURFACING
- ASPHALTIC CONCRETE
- OPEN-GRADED (PERMEABLE) ASPHALTIC CONC
- TURF BLOCK
- STAMPED CONCRETE
- PERMEABLE PAVERS
- ALL-WEATHER ATHLETIC SURFACING

PARKING TABULATION

Type	No. of Spaces
Standard Parking:	117
Accessible spaces:	8
TOTAL:	125



Source: Daniel Silvernail Architect, Inc. 2016

APN: 779-06-003

X15010024 01 001



- ▲ provide a buffer planted with trees, including orchard trees, to act as a visual and noise barrier between Monterey Highway and the mosque; to moderate the visual appearance of project development from off-site views; and to enhance the sense of “sanctuary” at the facility; and
- ▲ provide facilities sized to accommodate attendance projections for the growing SVIC community through at least 2030.²

3.3.3 Project Elements

MOSQUE

The proposed mosque building floor area would be 8,938 square feet (s.f.) and would include a 3,779-s.f. prayer hall, an entry hall, restrooms, and ablution rooms (used for the washing of hands and feet prior to entry into the prayer hall) on the ground floor. A second-story mezzanine would house an office for the Imam, an observation/babysitting area, a mechanical room, and a storage room. Daily prayers and Friday and Ramadan religious services would occur in this building, as well as weddings and funerals. The interior floor area of the prayer hall is designed for up to 300 people.

COMMUNITY BUILDING

The proposed community building would be a two-story multi-use building that would include an event hall, kitchen, classrooms, conference room, office, and restrooms. The total building floor area would be 14,548 s.f., with a 10,085 s.f. main floor area. The community building would accommodate any events that include food because the Islamic faith prohibits storage and consumption of food and beverages within the mosque. The 4,656-s.f. event hall portion would be used for potlucks, formal dinners, wedding receptions, and other community-gathering activities. Monthly SVIC meetings and youth Sunday school would also occur in this building. The event hall has been designed to accommodate up to 298 event attendees.

COMMUNITY PLAZA

A 15,000-s.f. plaza would be located between the mosque and the community building. The plaza would be surfaced with pervious concrete and include small landscape islands. It would create a design and usage connection between the mosque and community building and would provide outdoor space for informal outdoor gatherings during scheduled events in the community building and after worship in the mosque.

CEMETERY

An Islamic cemetery would be located on approximately 3.5 acres on the western side of the site. The cemetery would provide burials for SVIC members, their families, and extended families. Burials for anyone beyond these categories would be considered on a case-by-case basis by the SVIC Board. The cemetery area would be terraced to provide a level surface for the graves and adjoining gravel pedestrian paths and would be landscaped to resemble native grassland. Each grave would be 5 to 6 feet below ground and marked by a flat marker that would not project above grade. No buildings would be sited in this area. The maximum density of graves would be 1,000 per acre, for a total capacity of about 3,500 graves. The actual number of grave sites is anticipated to be somewhat less than 3,500 graves accounting for the area covered by the 12-foot wide cemetery and camp access road.

² SVIC's membership at its inception in 1999 was 10 families (40 persons). Today SVIC membership records shows the total membership is about 100 families. The average family size continues to be four persons/family. Therefore, the total SVIC membership is about 400 persons. SVIC anticipates that future growth will not be as high as the growth rate during 1999 to the present. During past years, the number of regular Friday prayer service attendees has been about 75 percent of the total membership. SVIC believes this percentage will be applicable to the future and has, therefore, sized the Cordoba project for a maximum of 300 people at events that will occur 1 to 2 times/week.

MAINTENANCE BUILDING

A 2,500-s.f. maintenance building would be located near the western boundary of the site, between the cemetery and a parking area. The building would serve the entire site, including the cemetery, and would be used for storage of maintenance vehicles (e.g., a backhoe, a pick-up truck, four to five small utility vehicles) and landscape maintenance vehicles.

CARETAKER'S DWELLING

A caretaker's residence would be located near the site entrance off Monterey Road. The single-family home would accommodate the property caretaker and his or her family, who would provide site security. Initially, the dwelling would consist of a 1,500-s.f. manufactured home. When funds become available, the manufactured home would be replaced with a 3,380-s.f. permanent residence.

YOUTH SUMMER CAMP

A 0.38-acre section of the ridgeline above the cemetery would be used for a summer youth camp (up to nine, one-week camps per summer). Each one-week camp would have up to 48 children and four chaperones, for a total of 52 attendees. Permanent structures would include two bathhouses and 14 square wooden tent platforms (12 foot by 12 foot). Separate 290-s.f. bathhouses would be provided, one for girls and one for boys; each would include shower and toilet facilities. The tent platforms would be arranged on either side of the bathhouses in two circles of seven. Canvas tents would be erected on the platforms only when camp is in session.

Americans with Disabilities Act-compliant access would be provided to the camp using wheelchair carriers attached to golf-cart-like utility vehicles that would carry passengers on the secondary roadway from the western parking lot to the summer camp.

PLAYFIELD AND PLAYGROUND

For informal sports and outdoor recreation, a rubberized-surface playfield, including two basketball courts and a volleyball court, and an adjoining children's playground would be located east of the community building.

ORCHARD

Fruit trees would be planted on a 0.6-acre area along Monterey Road to create a barrier between the sanctuary space and the road, as well as provide a rural amenity consistent with the agricultural history of the South Valley. The private orchard would limit views of the site from Monterey Road and would also reduce traffic noise in the sacred spaces on the project site. SVIC would maintain and harvest the orchard.

SITE COVERAGE

Table 3-1 lists key elements of the project and identifies their approximate site coverage area (in other words, the amount of land each of the elements requires, which differs from the floor area). All project elements would be setback at least 150 feet from the top of the bank of Llagas Creek to provide a riparian habitat buffer (see Exhibit 3-5). All impervious elements and structures would be setback at least 30 feet from the project site boundary. The mosque and community center buildings would be concentrated on the southern portion of the site and landscaping would be used to screen the property from off-site viewing locations.

Table 3-1 Proposed Land Uses and Project Site Coverage

Building or Land Use	Approximate Site Coverage Square Footage ¹	Portion of Project Site
Mosque	7,100	6%
Community Building (including event hall)	10,100	
Community Plaza	15,000	
Maintenance Building	2,500	
Caretaker's Dwelling	3,400	
Cemetery	155,000	40%
Youth Camp	16,500	
Playfield and Playground	21,000	
Orchard	26,000	
Parking and Access Road	53,200	
Stormwater Swale and Pond	26,100	54%
Open Space, including Wastewater Treatment Area (Leach Field)	341,000	
Total Site Area	676,900	100%

Notes: ¹ For buildings, square footage represents the aggregate building footprint, or the total area of the ground floor.

Source: compiled in 2017 by Ascent Environmental with assistance from Santa Clara County and Cypress Environmental and Land Use Planning

3.3.4 Building Design and Landscape

BUILDING DESIGN

The proposed mosque and community building would be designed in California Mission-style architecture. Buildings would be wood frame with cement plaster or stucco exterior and terra cotta tile roofs. The roofline ridge of the mosque would be 28.5 feet in height, which would allow for a dome that is approximately 6.5 feet tall to be placed on the roof ridge while adhering to the 35-foot restriction on building heights in the underlying zoning district. A secondary dome of the same height would house the mosque elevator. The community building would be 34 feet in total height, which would accommodate 9-foot-tall ceilings on the first floor and 8-foot-tall ceilings on the second floor. Exhibit 3-6 illustrates general building design, as viewed from the proposed access road along the southern property boundary.

LANDSCAPING

The proposed landscaping is intended to create an atmosphere of a sanctuary and to moderate the visual appearance of the development by using materials that reflect the rural landscape of southern Santa Clara County. Landscaping would use drought-tolerant species that are either native to Santa Clara County or other areas of the world with Mediterranean climates (Exhibits 3-7a and 3-7b).

Key features of the landscape plan include:

- ▲ a rounded and landscaped earthen mound with an undulating height (ranging from 2 to 5.5 feet) parallel to Monterey Road;
- ▲ a fruit tree orchard, a tribute to the prevalent local agriculture in the 20th Century, as a backdrop to the mound;
- ▲ grasslands in the northern and western portions of the site;
- ▲ a tree-lined access road;
- ▲ tree islands in and around the two parking lots and plaza;
- ▲ trees and shrubs associated with the main buildings; and
- ▲ emergent wetland plantings in the drainage swale.

SOUTH VALLEY ISLAMIC COMMUNITY
CORDOBA CENTER



Source: Daniel Silvernail Architect, Inc. 2015

X15010024 01 001

Exhibit 3-6

Concept Drawing of Proposed Mosque and Community Center Buildings





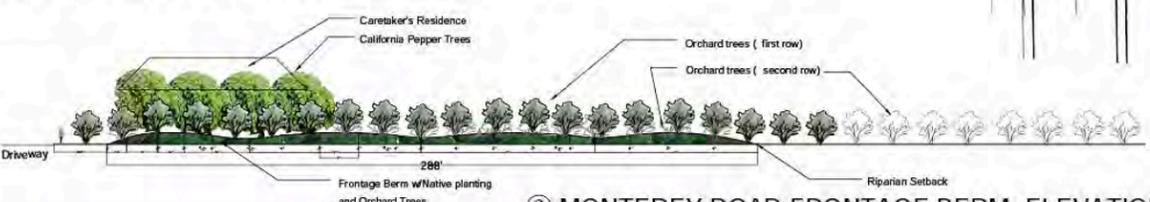
- PLAN KEY**
- 1 THE BOULEVARD- SEE SHEET L-2
 - 2 CORDOBA CORE AREA- SEE SHEET L-2
 - 3 MONTEREY ROAD FRONTAGE BERM & ORCHARD- SEE ELEVATION
 - 4 CEMETERY
 - 5 SWALE & STORM WATER RETENTION AREA- SHEET L-2
 - 6 BIOFILTRATION SWALE- SHEET L-2

- TREE SYMBOLS & LEGEND**
- PHOENIX *canariensis* (Canary Island Date Palm)
 - OLEA *europaea* 'Saan Hiif' (Fuolsons Olive)
 - QUERCUS *agrifolia* (Coast Live Oak)
 - QUERCUS *chrysolepis* (Canyon Oak)
 - QUERCUS *macrocarpa* (Interior Live Oak)
 - CHILOPSIS *linearis* 'Timberline Beauty' (Desert Flowering Willow)
 - LAGERSTROEMIA *hybrida* (Crape Myrtle)
 - VITEX *agnus-castus* (Chastetree)
 - PISTACHIA *chinerensis* (Chinese Pistache)
 - FRAXINUS *raywoodii* (Raywood Ash)
 - SCHNUS *molle* (California Pepper Tree)
 - ARGENTUS *sp.* (Strawberry Tree)
 - LAURUS *novae* 'Santalol' (Sweet Bay Tree)
 - QUERCUS *lobata* (Valley Oak)
 - PLATANUS *racemosa* (California Sycamore)
 - POPULUS *nigra* 'Italica' (Lombardy Poplar)
 - FRUIT TREES: Citrus, Fig, Plum, Pomegranate, Pomegranate
 - ORCHARD: Italian Prune Plum
 - EXISTING TREE- Protect (Typical U. N. D)



PLANT SYMBOLS & PALETTE

- LOW PERENNIALS, SPREADING GROUNDCOVERS
MEDITERRANEAN & CALIFORNIA NATIVE
- LOW SHRUBS, PERENNIALS, GROUNDCOVERS
MEDITERRANEAN & CALIFORNIA NATIVE
- MEDIUM - LARGE SHRUBS, 8' - 10'
MEDITERRANEAN & CALIFORNIA NATIVE
- MIXED GRASSES & SUCCULENTS
- VINES FOR GREEN WALL EFFECTS ON TRELLISES
- CALIFORNIA NATIVE SHRUBS, PERENNIALS & GROUNDCOVER
- CALIFORNIA NATIVE SWALE & DETENTION ISLOPE
EROSION CONTROL MIX
- CALIFORNIA NATIVE SWALE & DETENTION AREA
SEASONALLY WET MIX
- NATIVE MEADOW GRASS & FLOWERING MEADOW
HYDROSEED & 500 MIX. BLEND IN TO EXISTING MEADOW



3 MONTEREY ROAD FRONTAGE BERM- ELEVATION

Source: Produced by Drake Design Associates, 2015

X15010024 01 020



CEMETERY- BLENDS IN WITH EXISTING LANDSCAPE BY PLANTING MEADOW GRASS AND WILDFLOWER MIX



ROSEMARY DRAPES OVER LOW WALLS AROUND BUILDINGS



BIOFILTRATION SWALE



ONE CENTRAL LARGE ACCENT TREE ("Twilight" Purple Crape Myrtle Shown)



MEDITERRANEAN & NATIVE PLANTINGS & GROUNDCOVERS

PLAZA DE COMUNIDAD- FLOWERING TREES



Crape Myrtles



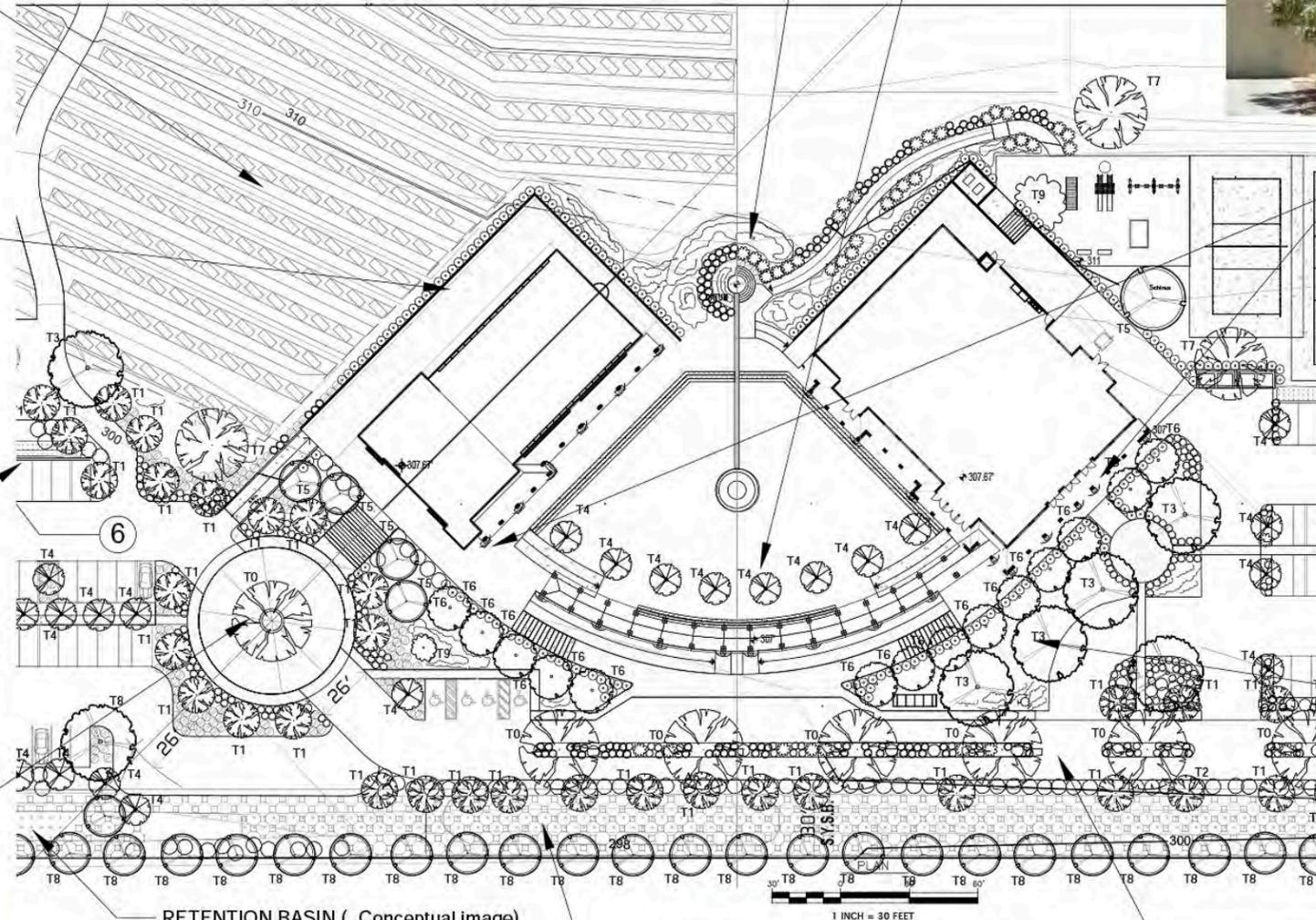
Desert Willow (low water)

GREEN VINES ON TRELLISES

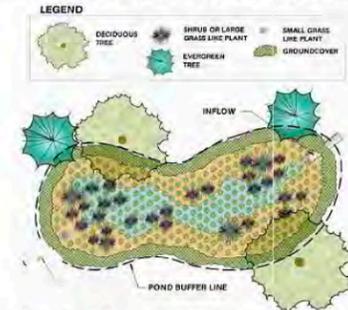


Creeping Fig and Wisteria Shown

SCREENING BY LARGE NATIVE EVERGREEN OAKS



RETENTION BASIN (Conceptual image)



Native Shrubs, Grasses, Wildflowers and Groundcovers

VEGETATED BIO-RETENTION SWALE



Native Planting of Native Grasses, Wildflowers and Groundcovers

THE BOULEVARD: OLIVE TREES & DATE PALMS

Canary Date Palms and Olives are important heritage trees, both in the Mediterranean Sea area and in California. They were part of the early California agricultural landscape, as they were introduced to the Mission areas for their fruit and oil. The Olive Branch is a symbol of peace. We recommend the Date Palms and Olives as the iconic trees of Cordoba Center's Entry Boulevard.



Olive Tree Allee



Palm Tree Allee

Source: Produced by Drake Design Associates, 2015

There are two large trees located near the center of the site that would be removed; a eucalyptus and a valley oak. Both of these trees are protected under the County of Santa Clara Ordinance Code, Division C16-2 – Tree Preservation and Removal. The trees were assessed by an arborist in March of 2016. The Eucalyptus was determined to be in fair health with fair structure. The native valley oak was observed to be in fair-to-poor health. The structural condition of this tree was poor. The oak’s declining health would not adapt well to construction stresses, such as compaction and root loss (Fouts 2016). The landscape plan includes 16 native oak trees (four coast live oak or canyon live oak, nine interior live oak, and three valley oaks), which would exceed the replacement requirements of Santa Clara County’s Guidelines for Tree Protection and Preservation for Land Use Applications. Native oaks would be planted west of the driveway leading to the caretaker’s residence, along the southwestern face of the community building, and east and west of the maintenance building.

3.3.5 Project Operation

EVENT ATTENDANCE AND USE

There are currently about 400 members of the SVIC. Maximum attendance at typical religious and cultural events is generally anticipated to be 300 individuals, although the Eid prayers and associated banquets that take place twice a year, and community picnics, could include as many as 500 attendees³. Typical attendance of daily dawn, mid-day, and late afternoon prayers would be 100 to 150 individuals. The typical attendance at regularly-scheduled Friday prayer services is anticipated to be 100 worshipers initially; eventually increasing to 300 people over the life of the project.

Events and regularly-scheduled activities would generally occur between 10:00 a.m. and 10:00 p.m. and would be concentrated on Fridays, Saturday, and Sundays. However, the site would be open to members for personal worship 24 hours per day. Table 3-2 outlines the anticipated timing, frequency, and duration of activities associated with the project. There would not be any broadcast calls to prayer or other amplified sound associated with any of these events.

Table 3-2 Timing, Frequency, and Duration of Anticipated Activities

Event	Attendance Estimate	Hours ¹	Duration ²	Frequency	Notes
Religious Events					
Dawn “Fajr” Prayers	100	6:00 a.m.–7:00 a.m.	0.5 hour	Daily	Attendees would not all arrive at the same time.
Mid-Afternoon “Duhr” Prayers	150	12:30 p.m.–2:00 p.m.	0.5 hour	Daily	Attendees would not all arrive at the same time.
Late-Afternoon “Asr” Prayers	150	3:30 p.m.– 5:30 p.m.	0.5 hour	Daily	Attendees would not all arrive at the same time.
Sunset “Maghrib” Prayers	200	5:30 p.m.–8:30 p.m.	0.5 hour	Daily	Attendees would not all arrive at the same time.
Night “Isha” Prayers	200	7:30 p.m.–11:00 p.m.	0.5 hour	Daily	Attendees would not all arrive at the same time.
Friday “Jummah” Prayers	300	12:30 p.m.–2:30 p.m.	1 hour	Once a week	Replaces mid-afternoon prayers on Fridays.
“Eid” Prayers	500	8:00 a.m.–12:00 p.m.	4 hours	Twice a year	Prayer is followed by “Eid” banquet. ³
Funeral Prayer	300	1:00 p.m.–4:00 p.m.	1 hour	Varies	Not a regularly scheduled event – only occurs in conjunction with funerals.
Youth Sunday Classes	100	11:00 a.m.–2:00 p.m.	2 hours	Once a week	Does not occur during summer and winter breaks.

³ According to SVIC, this design number recognizes that Friday prayers currently do not have a 100 percent membership attendance, but rather usually a 75 percent attendance rate. Attendance would be anticipated to increase to 500 people for the “Eid” prayer service and associated banquet (once per year) and the annual community picnic (once per year). Attendees would arrive at the same time for these events. The chart above shows the Eid prayers and banquet as occurring twice per year for simplicity. The second event is actually the community picnic. These are the only two events where attendance is anticipated to be more than 300 people.

Table 3-2 Timing, Frequency, and Duration of Anticipated Activities

Event	Attendance Estimate	Hours ¹	Duration ²	Frequency	Notes
Social and Community Events					
Mawlid Al-Nabi Banquets	300	5:00 p.m.–10:00 p.m.	3 hours	Once a year	Would be held on a weekend.
Community Potluck Dinners	200	6:00 p.m.–11:00 p.m.	3 hours	Once a month (except during Ramadan)	Would be held on a weekend.
Community “Iftar” Dinners	300	5:00 p.m.–11:00 p.m.	3 hours	Four times a year (once a week during Ramadan)	Would be held on Saturdays.
Community Picnics	500	11:00 a.m.–5:00 p.m.	5 hours	Twice a year	Would be held outdoors on a weekend. (Would not occur during other scheduled events.)
Weddings	300	5:00 p.m.–11:00 p.m.	4 hours	Four to six times a year	Not a regularly scheduled event – would be held on a weekend.
Youth Camp and Retreat	50	24 hours/day	Throughout summer break	Annually	A series of week-long camps.

Notes:

1: Hours indicate the span of time during which a type of prayer or other event is anticipated to occur.

2: Duration is the length of time that an individual is anticipated to be on the site engaging in a type of prayer or other event. For example, dawn “Fajr” prayers may occur between 6:00 a.m. and 7:00 a.m., but individuals would spend 0.5 hour in prayer within this hour-long time window.

3: Participants in the “Eid” Prayers and Banquet would arrive at the same time.

Source: SVIC 2015

Youth Summer Camps

One-week summer camps would be held for a maximum of nine weeks during the summer. The camp would accommodate a maximum of 52 people, including at least four adult chaperones, for overnight use. Campers would arrive at the beginning of the week-long session and remain on-site for the full week. Campers would use amenities throughout the site, including the playfields and community building. The camp would operate for a discrete period in the summer, not to exceed nine weeks annually. The camp area would not be used during the remainder of the year.

EMPLOYEES

A maximum of two employees would work out of the maintenance building. An Imam, the religious leader of the congregation, would also be employed and would have an office in the mosque. The site would also serve as a residence for the caretaker and family.

CEMETERY

The cemetery would be owned and operated by SVIC. The applicant would enter into an agreement with a third party (Habing Family Funeral Home of Gilroy) to open and close individual grave sites. Graves would be 5 to 6 feet deep and oriented generally east-west along the line of Qiblah to face Mecca. Muslim burial rites require that the deceased’s body is returned to earth as soon as practically possible, in its natural form, untreated and unembellished, and allowed to completely and naturally biodegrade.

Typical procedures followed in Islamic burials include the following:

- ▲ the body of the deceased is transported to a state-certified morgue, prepared and ritually washed for burial, and shrouded only in white, untreated cloth;
- ▲ the body is placed in a simple cardboard coffin and transported to the mosque for funeral services;
- ▲ funeral prayers are performed at the mosque and the coffin is then transported to the cemetery;
- ▲ at the burial site, the shrouded body is removed from the coffin and placed directly on dirt at the bottom of the grave. In certain cases, if the body is damaged (such as in case of an accident) or otherwise difficult to handle, it may be left in the cardboard coffin and placed in the grave;
- ▲ a brief prayer is said before the grave is backfilled with dirt and leveled to grade; and/or
- ▲ a small, horizontal stone plaque, flat on the ground, is placed at the head of the grave for identification;

The cemetery would be developed in four or more phases, beginning at the northern end of the cemetery and proceeding south. Burials would occur within each phase-area before the next is developed. This would allow successive phases of the cemetery to be developed without disturbing existing grave sites.

MATERIAL STORAGE AND USE

The maintenance building would house landscape maintenance equipment, small containers of petroleum products, and other materials associated with the project site maintenance activities. Fertilizer for landscape plants may also be stored in this building. The kitchen in the community building would store cleaning supplies, as necessary, to maintain the kitchen according to commercial kitchen standards.

3.3.6 Infrastructure

ROADWAYS AND CIRCULATION

Site Access

Vehicle access to the site would be provided from Monterey Road. An internal roadway would generally follow the southern boundary of the site, providing access to parking lots located in the southeastern and southwestern areas of the site, a drop off zone south of the community plaza, and the 12-foot-wide cemetery driveway and fire road that would terminate at the summer camp site. The paved primary access road would have 10-foot-wide travel lanes separated by a 5-foot-wide landscape median. The secondary road through the cemetery would also serve as an emergency access road to the ridge. The paved road would terminate at a 64-foot-diameter fire truck turn-around area within the youth camp.

Parking

The project site is proposed to accommodate parking for up to 125 vehicles in two lots. This number is intended to meet the requirement in Chapter 4.30 of the County Code of one space for every four worshipers, plus one space for mosque staff and 14 spaces for campground users. Parking for one or two maintenance staff would be located in dedicated spaces at the maintenance building. The site caretaker and family would park at the residence. Bicycle parking would also be provided.

Pedestrian Trails and Bike Paths

Because Monterey Road is a four-lane arterial and the County Roads and Airports Department's typical section for arterials includes sidewalks, the applicant would be required to construct a public sidewalk on the west side of Monterey Road for the length of the project site. In addition, a private, unpaved pathway

would be constructed that extends from the access road, just west of the caretaker's residence, north through the orchard and along the ridgeline to the campground site. From the site of the camp, an existing trail extends northwest to Atherton Pond. The unpaved (dirt) path would be approximately 4 feet wide.

WATER SUPPLY

Water for fire protection and potable purposes would be procured from the West San Martin Water Works. The nearest water main is located in California Avenue, about 135 feet from its intersection with Monterey Road. The project would include extension of this 8-inch-diameter main to the project site on Monterey Road. Within the project site, three 4-inch-diameter lateral lines would be constructed from the West San Martin Water Works main: one line dedicated to supplying the fire hydrants, one line for fire sprinklers in the buildings, and another to supply potable water to the buildings.

The project also includes two 5,000-gallon water tanks in the campground area to achieve the required fire flow of 1,500 gallons per minute at 20 pounds per square inch. Fire hydrant locations have been designed through consultation with the County Fire Marshal. Three hydrants are planned: one at the junction of the driveway to the caretaker's residence and the project access road, and two more generally south of both the mosque and community buildings.

An existing well on the site would be rehabilitated and used to irrigate site landscaping.

WASTEWATER

Wastewater Treatment

The proposed project would be served by two independent on-site wastewater treatment systems. The caretaker's dwelling would be served by a system consisting of a 1,500-gallon storage tank, adjoining treatment tank, and pump chamber, which would be located at the western side of the residence and which would leach into a subsurface drip dispersal field located on the hillslope northwest of the proposed residence. A larger system would serve the remainder of the site, including the mosque, community building, maintenance facility, and campground bathhouses. Wastewater from the bathhouses would first be discharged to a septic tank and then conveyed to the main leachfield via a closed transmission line. Wastewater from the other buildings would be discharged to a 20,000-gallon septic tank that releases liquid waste into a 20,000-gallon regulating tank, which would release 4,500 gallons per day of effluent to the treatment tank for nitrate removal before the effluent is pumped to the leachfield. This infrastructure would be located in the landscaped area between the eastern parking lot, the community building, and the access road. The two wastewater treatment areas (leach fields) would be located side-by-side, between the orchard and the cemetery, and north of the play area.

Wastewater Generation

The anticipated wastewater flow has been calculated based on the projected maximum number of users multiplied by the estimated flow from the various on-site activities. The campground area has two bath houses and would serve no more than 52 people a day during the summer months. The camp area bathrooms represent potential wastewater flow of 25 gallons a day per visitor, for a daily total of 1,300 gallons. The maintenance building would have a maximum of two employees, who would use restroom facilities located in this building. Each employee is expected to generate a maximum daily wastewater flow of 15 gallons. The anticipated volume of wastewater from the mosque and community building is also based on a flow of 15 gallons per person per day.

The wastewater system has been designed for the maximum use of the site, which would occur on Fridays approximately four times each year. At 15 gallons per day, the 500 parishioners and two staff members, which constitute the estimated maximum attendance on one day, would generate 7,530 gallons of wastewater daily. Typical maximum daily flows on other days of the week are anticipated during operation of the youth camp in the summer, when maximum wastewater flows on Saturdays and Mondays through

Thursdays are estimated at 5,075 gallons and maximum wastewater flows on Sundays are estimated at 7,310 gallons. The smaller on-site wastewater treatment system for the caretaker residence is designed for a wastewater flow of 450 gallons per day, which is the standard for a three-bedroom home.

Occasional washing of vehicles, excluding heavy equipment, would also occur within the maintenance building. A drain inlet would be installed in the floor of the maintenance building to convey wash water to a drain pipe that would outfall at the larger wastewater treatment system. With the exception of a washer and dryer for household use at the caretaker's residence, no on-site laundering would occur. Laundering of items used in banquets in the community building and bedding at the youth camp would be done at an off-site laundry service.

GAS AND ELECTRICAL SERVICE

Natural gas and electricity service would be provided by Pacific Gas and Electric Company.

OUTDOOR LIGHTING

Outdoor lighting would include outdoor security lighting on buildings that is downward directed and shielded, and low voltage lighting in landscaped areas. Pole lighting in parking areas would also be directed downward and shielded. An outdoor lighting plan has been prepared, which identifies light designs that direct light downward, reducing skyglow and minimizing the potential for light to shine outside of the immediate vicinity of the project site and reducing nighttime glare on nearby roads and residential properties.

DRAINAGE

A biofiltration swale and connected retention pond have been designed to maintain off-site drainage discharges at pre-development rates for up to a 10-year storm event. The biofiltration and retention swale would be located south of the access roadway, along the southern property boundary. A smaller swale would be located between the eastern parking lot and the outdoor recreation area.

3.3.7 Construction

GRADING

Grading would be required to develop the buildings planned for the southern half of the site, the cemetery, and access roads and parking. The topography of the western portion of the site, which has steep slopes of greater than 30 percent, was artificially created to support use of the area as an orchard. The project would result in the grading of an estimated 6,650 cubic yards of soil. Of this, 5,945 cubic yards would be used for on-site fill and 705 cubic yards would need to be exported off-site to another approved grading project or a public landfill.

An estimated 2,060 cubic yards of soil would be used to create a series of narrow terraces in the hillside for the cemetery, as well as a cemetery access road. These terraces would be constructed perpendicular to the slope, in the same manner as the previous terracing associated with former use of the area for agricultural cultivation. The majority of the ridge along the northern property boundary, a prominent topographic feature, would be retained in open space. Retaining walls would be used to stabilize new cut slopes behind (north of) the mosque and community building, and between the east parking lot and the playfield. The maximum height of the walls would be 6 feet.

SCHEDULE AND PHASING

For the purposes of this analysis, construction is assumed to occur between 2019 and 2022—a 4-year period. As described below, construction would consist of four basic phases: rough grading, infrastructure

improvements, structure construction, and installation of orchard, other landscaping, and open space improvements. No more than two phases would occur simultaneously. Construction is anticipated to occur between 7:00 a.m. and 7:00 p.m., Monday through Friday. Night construction is not proposed.

PHASE I - Rough Grading: The site would be rough graded, which includes building pad preparation, grading of proposed roadways, and construction of erosion and sediment control features. Construction staging for materials and equipment would occur within the project site. The anticipated duration of this activity is approximately six months.

PHASE II - Infrastructure Improvements: This phase includes construction of proposed roadway, and wet and dry utilities. Parking would also be established in this phase. The anticipated duration of this activity is approximately six months. This phase may occur concurrently with Phase I and/or Phase III, below.

PHASE III – Structure Construction: Activities include construction of the mosque, community building, community plaza, and maintenance building. Construction staging for materials and equipment would occur within the project site. Construction of the main buildings would occur over a year. Phase III can be separated into Phases III.A and III.B. All buildings, except the mosque and plaza, are planned to be constructed in Phase III.A. The mosque and plaza would be constructed after these buildings have been completed and, therefore, could be considered as being constructed in Phase III.B.

PHASE IV – Orchard and Open Spaces: This phase includes landscaping, planting the orchard, and other amenities for the congregation, such as the playground, basketball and volleyball courts, and hiking trail. Activities include finish grading and installation of irrigation, planting, hardscape, and new park structures. It is possible that Phase IV activities may occur earlier in the process.

CONSTRUCTION EQUIPMENT

Equipment that would be used during project construction may include: graders, dozers, excavators, scrapers, other tractors, cranes, forklifts, generator sets, curb equipment, pavers, paving equipment, rollers, welders, and air compressors.

ACCESS AND STAGING

Construction traffic would access the site via Monterey Road. Construction staging for materials and equipment would occur within the project site.

BASIC CONSTRUCTION MEASURES TO PREVENT AIR POLLUTION

The applicant will incorporate the following basic measures into all construction documents to prevent air pollution in a manner consistent with the Bay Area Air Quality Management District's standards.

- ▲ All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered twice per day.
- ▲ All haul trucks transporting soil, sand, or other loose material off-site will be covered.
- ▲ All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping will be prohibited.
- ▲ All vehicle speeds on unpaved roads will be limited to 15 miles per hour.
- ▲ All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used.

- ▲ Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage will be provided for construction workers at all access points.
- ▲ All construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- ▲ A publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints will be posted on-site. This person will respond and take corrective action within 48 hours. The Air District's phone number will also be visible to ensure compliance with applicable regulations.

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4 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

This chapter includes sections devoted to the evaluation of potential environmental impacts for specific resource areas. Each section begins with a description of the environmental and regulatory setting, which provides a point of reference for assessing the environmental impacts of the proposed project and alternatives. According to Section 15125 of the California Environmental Quality Act Guidelines (State CEQA Guidelines), an environmental impact report (EIR) must include a description of the existing physical environmental conditions in the vicinity of the project to provide the “baseline condition” against which project-related impacts are compared. The baseline condition is typically the physical condition that exists when the notice of preparation is published. The notice of preparation for the Cordoba Center Project was published on December 12, 2016.

The setting description in each section is followed by an impacts and mitigation discussion. This impacts and mitigation section includes subsections that describe the methodology used in the analysis, the thresholds used to determine impact significance, and an impact analysis. The significance criteria are based on the environmental checklist in Appendix G of the State CEQA Guidelines; best available data; and regulatory standards of federal, state, and local agencies. The potential impacts of the Cordoba Center Project are determined by comparing the project to the baseline condition, as described in the environmental setting, in light of the established thresholds of significance. Project impacts are numbered sequentially in each section (e.g., Impact 4.1-2, Impact 4.1-2, Impact 4.1-3). A summary impact conclusion statement precedes a more detailed discussion of the environmental effect. The discussion includes the analysis, rationale, and substantial evidence upon which conclusions are drawn. The determination of level of significance of the impact is defined in bold text.

For impacts found to be potentially significant or significant, feasible mitigation measures that could reduce the severity of the impact are identified. Mitigation measures are numbered to correspond with the assigned impact number (e.g., the mitigation for Impact 4.1-1 would be Mitigation Measure 4.1-1). In accordance with Public Resources Code Section 21081.6(b), mitigation measures must be fully enforceable through permit conditions, agreements, other legally binding instruments, or by incorporating the measures into the project design. Where mitigation measures are identified, the significance of the impact following implementation of the prescribed measures is provided.

The analysis recognizes that the project applicant would comply with all applicable local, state, and federal laws and regulations. Similarly, established design guidelines or other requirements that Santa Clara County regularly recognizes and follows for development projects are also considered part of the project description. In this Draft EIR, such requirements are identified and considered in the impact assessment prior to the identification of additional project-specific mitigation measures that would reduce the significance of impacts.

CUMULATIVE IMPACTS

CEQA requires that an EIR include an assessment of the cumulative impacts that could be associated with project implementation. This assessment involves examining project-related effects on the environment in the context of similar effects that have been caused by past or existing projects, and the anticipated effects of reasonably foreseeable, probable future projects. An EIR must discuss the cumulative impacts of a project when its incremental effect will be a considerable contribution to a significant cumulative impact. Although project-related impacts may be individually minor, in combination with similar impacts of other related projects, the effects could be cumulatively significant under CEQA and must be addressed (CEQA Guidelines Section 15130(a)). Section 15130(b) indicates that the level of detail of the cumulative analysis need not be

as great as for the project impact analyses, that it should reflect the severity of the impacts and their likelihood of occurrence, and that it should be focused, practical, and reasonable.

Cumulative Impact Analysis Methodology

Cumulatively considerable, as defined in State CEQA Guidelines Section 15065(a)(3), means that the “incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” State CEQA Guidelines Section 15355 defines a cumulative impact as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. Section 15130(a)(3) of the State CEQA Guidelines states that an EIR may determine that a project’s contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. A project’s contribution may also be determined to be less than cumulatively considerable, if the project complies with the requirements of a previously approved mitigation program that would avoid or substantially less the significant cumulative impact (Section 15064[h][3] of the State CEQA Guidelines).

The State CEQA Guidelines (Section 15130) identify two basic methods for establishing the cumulative environment in which the project is to be considered: the use of a list of past, present, and probable future projects or the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning document. This analysis is based on a combination of these approaches.

The effects of past and present projects on the environment are reflected by the existing conditions in the project area. A list of probable future projects is provided below. Probable future projects are those in the project vicinity that have the possibility of interacting with the proposed project to generate a cumulative impact (based on proximity and construction schedule) and either:

- ▲ are partially occupied or under construction,
- ▲ have received final discretionary approvals,
- ▲ have applications accepted as complete by local agencies and are currently undergoing environmental review, or
- ▲ are proposed projects that have been discussed publicly by an applicant or that otherwise become known to a local agency and have provided sufficient information about the project to allow at least a general analysis of environmental impacts.

The geographic study area and method for conducting the cumulative analysis varies by technical area. For example, air quality impacts are evaluated against conditions in the air basin. Other cumulative analyses, such as cultural resources, consider the potential loss of resources in a broader, more regional context. Cumulative impacts for each technical area are discussed within the resource sections. When considered in relation to other probable future projects, cumulative impacts to some resources could be significant and more severe than those caused by the proposed project alone.

Projects Considered in the Cumulative Analysis

Table 4-1 identifies reasonably foreseeable, probable future projects that were considered in the development and analysis of potential cumulative impacts. Projects considered in the cumulative analysis are also mapped in Exhibit 4-1. Probable future projects meet the criteria described above: they are in the project vicinity and have the possibility of interacting with the Cordoba Center Project to generate a cumulative impact.

Table 4-1 Probable Future Projects Considered in the Development and Analysis of Potential Cumulative Impacts

Project Name	Description	Location	Number of Housing Units/Area of Buildings (sq.ft.)	Project Status
Doaba Motors	Sales and customization of commercial delivery vans and trucks.	40 E. San Martin Ave., San Martin	No new building or structure proposed, two existing buildings would be used (6,190 sq. ft.). Anticipate five employees, two customers per day.	Use permit application
Patel RV Park	RV Park with central lodge and amenities.	Corner of Monterey Hwy and California Ave., San Martin (adjacent to Cordoba Center Project site)	124 temporary housing units (RV park spaces) and 1 manager's residence	Proposed use permit, with architecture and site approval, and grading approval
Portable Lavatory Storage	Outdoor distribution facility to store portable lavatories, three storage units, office, water tower, parking.	Sycamore Ave., San Martin	Total 1,000 sq. ft. (office building 400 sq. ft., storage containers 700sq. ft.)	Application for a use permit with architectural site approval
California High Speed Rail	Alternative alignments for the Morgan Hill to Pacheco Pass Subsection of the San Jose to Merced segment would roughly parallel the east side of Monterey Highway.	Existing rail corridor east of the proposed project site (across Monterey Highway).	Not applicable.	Record of Decision is expected in 2019. Operation of the applicable line is expected in 2027.

Note: List restricted to known, planned projects within approximately 2 miles of the project site.

Source: Data compiled by Ascent Environmental and Santa Clara County.



Source: Compiled by Ascent Environmental in 2017

Exhibit 4-1

Cumulative Projects



4.1 AESTHETICS AND VISUAL RESOURCES

4.1.1 Introduction

This section describes the existing visual characteristics of the project site and surrounding landscape and evaluates the potential of the project to result in substantial adverse visual impacts. The visual impact analysis considers existing scenic resources and the potential for public views to be affected by the project.

One comment pertaining to aesthetics was received during public review of the Notice of Preparation for the proposed project. The comment raises an issue regarding potential impacts of proposed exterior lighting on wildlife. This is a biological resources issue and is addressed in Section 4 of the Initial Study (see Appendix A).

4.1.2 Environmental Setting

REGIONAL SETTING

Santa Clara County can be divided into three basic landscape areas: 1. the flat bayside and valley lands that extend through the center of the County from San Francisco Bay to Gilroy; 2. the semi-arid hills of the Diablo Range to the east; and 3. the more verdant, steep-sided slopes of the Santa Cruz Mountains to the west. In the northern half of the County, the Santa Cruz Mountains and the Diablo Range form a broad basin that contains the south end of San Francisco Bay and surrounding lowlands and a gently sloped alluvial plain. The plain is approximately 4 to 6 miles wide at Palo Alto and Milpitas, but widens out to the south to become the floor of the Santa Clara Valley. In southern San Jose, it narrows to 2 miles through the Coyote area, and then at Morgan Hill broadens into an approximately 4-mile-wide corridor that continues through San Martin and Gilroy to the County's southern border. In all areas of the County, the edges of the valley are well defined by the steep slopes of the Diablo Range, which rise to elevations of 3,000 to 4,000 feet, and the Santa Cruz Mountains, which rise to elevations of 2,000 to 3,000 feet (Santa Clara County 1994a: 5H-1).

The project site is located in southern Santa Clara Valley within an unincorporated area of the County in the San Martin community, between the cities of Morgan Hill and Gilroy (see Exhibit 3-1 in Chapter 3, "Project Description"). The southern part of the Santa Clara Valley is relatively rural and contains more open space and agricultural uses than other more urban parts of the county. Santa Clara County has identified the following resources as important to the scenic character and visual quality of the County: hillsides and mountains, creeks and streamsides, baylands, ranchlands, agricultural lands, and parks (Santa Clara County 1994a: 5H-1-5H-2).

LOCAL SETTING

The 15.8-acre project site is located west of U.S. Highway 101 (U.S. 101) and abuts Monterey Road (see Exhibit 3-2 of Chapter 3, "Project Description"). The project site is currently vacant and is covered primarily with grasslands and a few scattered oak trees with a large eucalyptus tree and valley oak tree located near the center of the site. The northern boundary of the project site parallels Llagas Creek and associated riparian vegetation. An east-west trending bedrock ridge spans the northern boundary of the project site separating the flat area of the site from the creek corridor and blocking views of the creek channel from most of the project site (see Exhibit 4.1-1 below). For the purposes of this analysis, Llagas Creek and the ridge on the project site are both considered scenic resources.

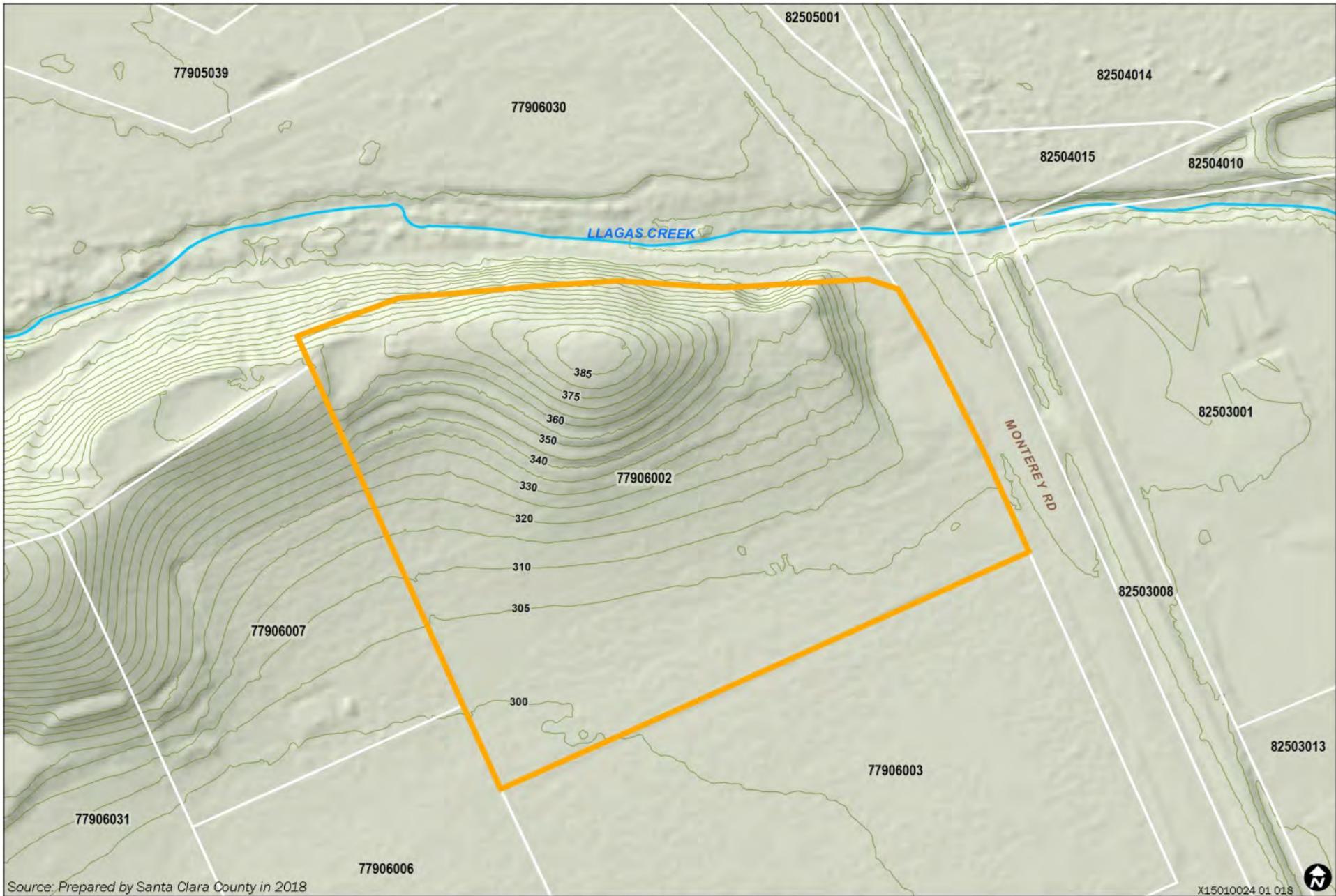


Exhibit 4.1-1

Project Site Hillshades and Elevations



The immediately surrounding landscape, except for the Llagas Creek corridor, can be characterized as flat, rural residential areas, with some agricultural production and neighboring industrial facilities. Transmission lines span the project boundary to the east, adding urban vertical and horizontal linear elements to the landscape. The industrial land uses east of Monterey Road are separated from the project site by the Union Pacific Railroad tracks that parallel the eastern side of the road. Land uses to the east and south consist of agricultural industrial uses and rural residences (Exhibits 3-3a and 3-4b). The agricultural industrial buildings are neutral-colored, single-story buildings that contrast with the natural and vegetated landscape in the area. The foothills of the Diablo Range add a high quality natural background looking east. Looking south and west, few single-story rural residences are visible amongst grasslands and several large trees. The views are dominated by vegetation in the foreground, and undulating horizontal lines provided by the Santa Cruz Mountains in the background. Nighttime lighting in the site vicinity is minimal and includes security lighting at the industrial facilities across Monterey Road, lights from vehicles on Monterey Road, and minor exterior lights associated with the nearby rural residences.

The County General Plan designates the project site Rural Residential. In addition, the project site is located within areas designated in the County General Plan as the San Martin Planning Area, and partially within the San Martin Industrial Use Permit Area, both of which include special land use policies within the *Santa Clara County General Plan* (Santa Clara County 1995¹).

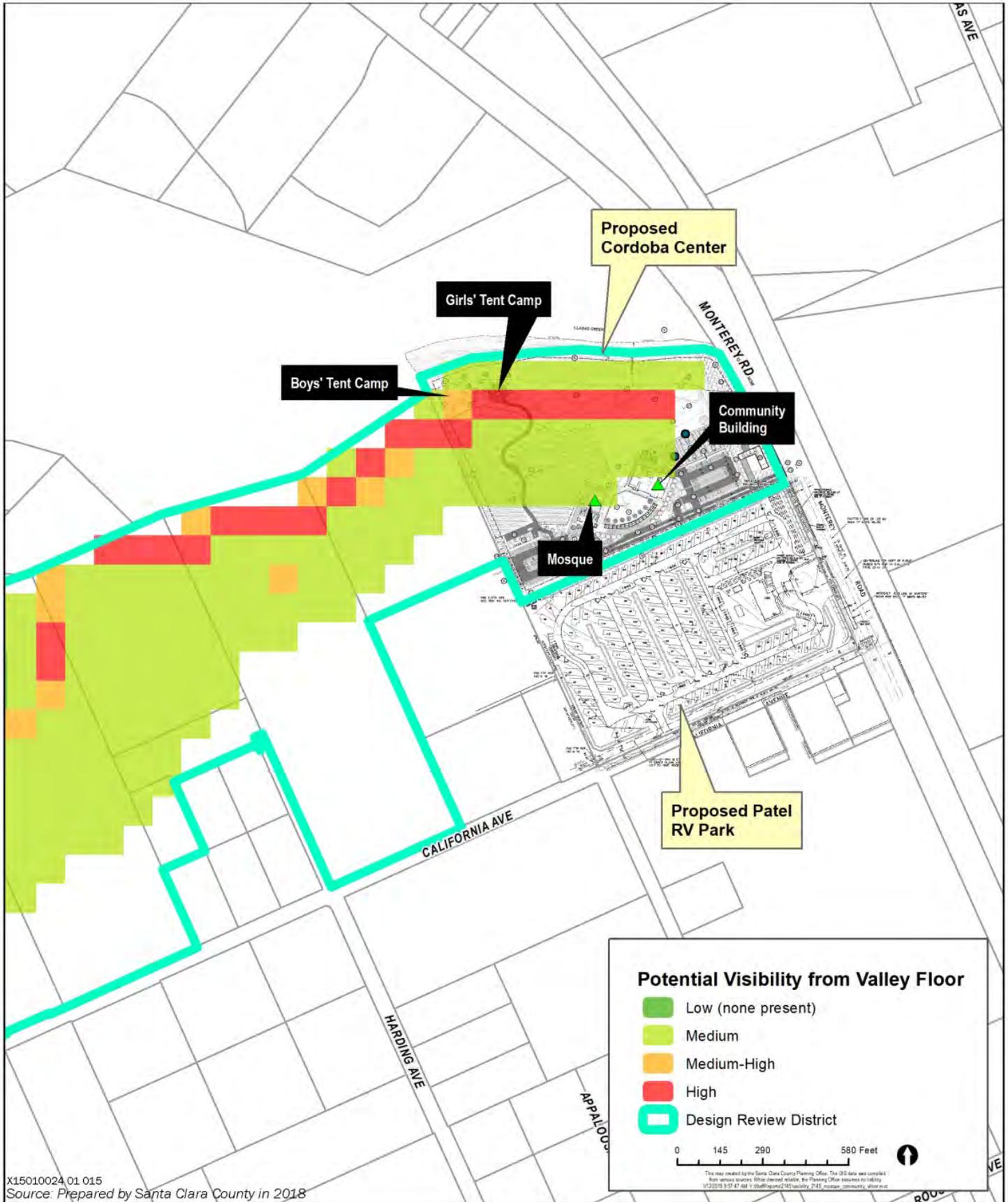
The site is zoned RR (Rural Residential), with a combining district of - sm (San Martin Use Permit Areas) for the eastern half of the site, specifically the area fronting Monterey Road. The project site is also located in a - d1 Design Review Combining District (Santa Clara Valley Viewshed). Refer to Section 4.1.3, "Regulatory Setting," for more information regarding the applicable design guidelines and requirements under these policies.

VIEWS OF PROJECT SITE AND VIEWER SENSITIVITY

As noted above, the project site is located within the Santa Clara Valley Viewshed (designated -d1 on the County's zoning maps). Exhibit 4.1-2 shows potential visibility of -d1 parcels. The front portion of the project site is generally not visible from the valley floor. Visibility of the interior parts of the site ranges from medium to high, with the most visible portion being the ridge on the north end of the parcel that parallels Llagas Creek. However, this mapping assumes bare earth conditions. In reality, given the low height of the ridge, and intervening buildings and vegetation, the views of the project site outside of the immediate vicinity are substantially limited. Views of the project site are primarily afforded by motorists traveling along Monterey Road and California Avenue, rural residents in the immediate site vicinity, and workers at the industrial uses along Monterey Road.

Viewer sensitivity is a measure of public concern for changes to scenic quality. Numbers of viewers, viewer activity, view duration, distance from seen objects (foreground versus background), adjacent landscape character, and special planning designations such as scenic routes are used to characterize viewer sensitivity. Motorists traveling along Monterey Road or California Avenue have a moderate sensitivity to visual change because the project site is located immediately adjacent to both roadways, but the project site would be visible for a relatively short period of time as they drive past. Workers in the area also have moderate sensitivity to visual change because the workers frequent the vicinity several times per week, although time spent viewing the site would be minimal. There are approximately seven residential properties located near the project site along California Avenue. Residents typically have high sensitivity to visual change given the long-term nature of their views.

¹ These policies were initially introduced with the 1995 general plan, and were updated subsequently several times in the last 25 years, with 2015 being the most recent update.



X15010024_01_015
 Source: Prepared by Santa Clara County in 2018

Exhibit 4.1-2

Visibility from Valley Floor



KEY VIEWPOINTS

Key viewpoints (KVPs) are locations that are representative of the most important views of the project site or other important viewsheds that could be affected by the project. Observer sensitivity to visual change is also considered in the selection of KVPs. Because public areas tend to be used by more observers than private areas, KVPs typically include locations that are publicly accessible such as along roadways and travel corridors, at recognized vista points, and in public recreation areas. Three KVPs along Monterey Road and one KVP from California Avenue were selected as the basis of the visual analysis and photo simulations. As noted under “Views of Project Site and Viewer Sensitivity,” intervening buildings and vegetation substantially limit views of the project site outside of the immediate vicinity. The four selected KVPs, which are shown on Exhibit 4.1-3 and described in Table 4.1-1 were selected because they are the primary points along public roads at which the project site is visible.

Table 4.1-1 Key Viewpoint Descriptions

KVP #	View Direction	Location	Viewshed
1	Southwest	Southbound Monterey Road at Llagas Creek*	The foreground includes the wide-open expanse of the project site backdropped by the Santa Cruz Mountains. The view of the project site from this location is dominated by relatively flat grasslands and transmission lines. Trees and other vegetation are visible in the middleground, and beyond that the undulating ridges of the Santa Cruz Mountains.
2	West	Monterey Road between Llagas Creek and California Avenue	The flat, grasslands covered project site is visible in the foreground, scattered rural residences and vegetation are visible in the middleground, and vegetated hillsides provide the backdrop. Powerlines add vertical and horizontal elements to the foreground.
3	Northwest	Southeastern corner of the intersection of Monterey Road and California Avenue	Paved roadways, wood utility poles and power lines, and street signage dominate the foreground. The primarily flat project site is visible in the middleground, as well as the ridge located along the north end of the project site near Llagas Creek. Scattered vegetation and rural residences are located in the background against small, vegetated hillsides.
4	North/Northwest	California Avenue directly in front of rural residence	The flat project site is immediately visible in the foreground and middleground. The ridge next to Llagas Creek and associated riparian vegetation is visible in the background.

*Viewpoints further north along Monterey Road were not selected because the site is not visible until the traveler has crossed Llagas Creek due to the ridge along the northern boundary of the project site. While a portion of this ridge would have campgrounds for up to 14 tent sites and accessory bathrooms, these structures would be small (less than 2,500 square feet cumulatively), and the tents would only be installed during the summer months for a limited period. Hence, a visual simulation was not conducted from this viewpoint. These structures and tents would also be conditioned as a part of any approvals to incorporate screening and low reflectivity standards to reduce visibility.

Source: Data compiled by Ascent Environmental in 2017

4.1.3 Regulatory Setting

FEDERAL

There are no federal programs or policies addressing visual resources that pertain to the project.

STATE

California Scenic Highway Program

California’s Scenic Highway Program was created by the California Legislature in 1963 and is managed by the California Department of Transportation (Caltrans). The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated “scenic” depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers’ enjoyment of the view (Caltrans 2008).



Exhibit 4.1-3

Key Viewpoint Locations



The program includes a list of eligible highways and officially designated scenic highways and includes a process for the designation of official State or County Scenic Highways. Highways are designated as Eligible (E) or Officially Designated (OD). No state-designated scenic highways or state highways that are eligible for such designation are located near the project site (Caltrans 2011). However, U.S. 101 is identified in the *Santa Clara County General Plan* (Santa Clara County 2015: G-24) as a state highway that deserves attention by the State Legislature for addition to the “California Master Plan of State Highways eligible for Official Scenic Highway Designation.” U.S. 101 is approximately 0.7 mile from the project site.

LOCAL

Santa Clara County General Plan

County Scenic Highways and Road

The Parks and Recreation Element of the Santa Clara County General Plan (Santa Clara County 1994b: G-25) includes goals and policies for establishing scenic highways and roadways within the County and protecting view corridors along those scenic highways. Roads and highways identified as scenic include those established as officially designated and eligible for designation by the California Scenic Highway Program, as well as other roads and highways not currently considered eligible for the State Highway Program. Santa Teresa Boulevard is a County-designated scenic route and is a little over 0.5 mile from the project site.

County Scenic Resources

The Resource Conservation Element of the Santa Clara County General Plan (Santa Clara County 1994b: H-40) includes three general strategies for preserving and enhancing the scenic values of both natural and built environments:

- ▲ Strategy #1: Manage Growth and Plan for Open Space
- ▲ Strategy #2: Minimize Development Impacts on Significant Scenic Resources
- ▲ Strategy #3: Maintain and Enhance the Values of Scenic Urban Settings

The Resource Conservation Element also includes goals and policies for preserving and enhancing scenic resources within the County. The following General Plan policies may apply to the proposed project:

- ▲ **Policy C-RC 57:** The scenic and aesthetic qualities of both the natural and built environments should be preserved and enhanced for their importance to the overall quality of life for Santa Clara County.
- ▲ **Policy C-RC 58:** The general approach to scenic resource preservation on a countywide basis should include the following strategies:
 - a. conserving scenic natural resources through long range, inter-jurisdictional growth management and open space planning;
 - b. minimize development impacts on highly significant scenic resources; and
 - c. maintaining and enhancing scenic urban settings, such as parks and open space, civic places, and major public commons areas.
- ▲ **Policy C-RC 60:** Hillsides, ridgelines, scenic transportation corridors, major county entryways, and other areas designated as being of special scenic significance should receive additional consideration and protections due to their prominence, visibility, or symbolic value.
- ▲ **Policy C-RC 61:** Public and private development and infrastructure located in areas of special scenic significance should not create major, lasting adverse visual impacts.

- ▲ **Policy R-RC 95:** The scenic and aesthetic qualities of both the natural and built environments should be preserved and enhanced for their importance to the overall quality of life for Santa Clara County.
- ▲ **Policy R-RC 96:** The general approach to scenic resource preservation for the rural unincorporated areas consists of the following strategies:
 1. Minimize scenic impacts in rural areas through control of allowable development densities.
 2. Limit development impacts on highly significant scenic resources, such as, ridgelines, prominent hillsides, streams, transportation corridors and county entranceways.
- ▲ **Policy R-RC 97:** Scenic qualities of the rural areas of Santa Clara County shall be maintained and enhanced through existing land use and development policies. Development compatible with scenic resource conservation should be encouraged.
- ▲ **Policy R-RC 98:** Hillsides, ridgelines, scenic transportation corridors, major county entryways, stream environments, and other areas designated as being of special scenic significance should receive utmost consideration and protection due to their prominence, visibility, and overall contribution to the quality of life in Santa Clara County.
- ▲ **Policy R-RC 100:** Signs allowable under the provisions of the zoning ordinance should be harmonious with the character of the area in which they are located and should be of the highest design standards.
- ▲ **Policy R-RC 101:** Roads, building sites, structures and public facilities shall not be allowed to create major or lasting visible scars on the landscape.
- ▲ **Policy R-RC 102:** Structures on ridgelines must be located, constructed or landscaped so that they do not create a major negative visual impact from the Valley floor. Land should be divided in such a way that building sites, if possible, are not located on ridgelines.
- ▲ **Policy R-LU 119:** Non-residential development in the San Martin Planning Area shall conform to adopted development and design guidelines for the San Martin Community contained within the “San Martin Integrated Design Guidelines.”

County Scenic Resources

The Growth and Development Element includes policies to allow only non-urban uses and densities outside Urban Service Areas, conserve natural resources, and preserve scenic qualities of the rural landscape.

- ▲ **Policy R-GD 31:** Ridgelines and ridge areas have special significance for both public policy and private interests. Ridgeline and hillside development that creates a major negative visual impact from the valley floor should be avoided or mitigated, particularly for those areas most immediately visible from the valley floor. Ridgeline development policy should also take into account the need to allow reasonable use and development of private land.
- ▲ **Policy R-GD 34:** For existing legal lots, if a ridgeline or hilltop location is a potentially suitable location for development, consistent with grading or other land development policies and regulations, due to the particular geologic circumstances, access needs, or other suitability characteristics of the lot, the following conditions or mitigations to visual impacts of development shall be considered and applied through applicable land use and development approvals, as necessary and appropriate:
 - a) landscaping and vegetation retention, as appropriate,
 - b) color and material choices that blend with the natural surroundings, and
 - c) any other similar requirements or mitigations that reasonably relate to the degree of visual impact. [Note: Where Design Review zoning applies or is required by condition of subdivision or other approval, such requirements will be addressed through the applicable Design Review procedure].

- ▲ **Policy R-GD 35:** In applying and implementing Design Review requirements, the County shall also take into account such factors as distance from the valley floor, existing vegetation, intervening slopes and hillsides, and other factors that tend to mitigate visual impact of hillside development.

Santa Clara County Zoning Ordinance

The Zoning Ordinance divides the unincorporated territory of the County into geographical districts designated as zoning districts. Groups of these districts are designated as zoning for rural uses, resource conservation, open space and environmental protection, while the remainder are designated as zoning districts for urban uses. The zoning ordinance establishes regulations limiting the use of land and structures, the location, height and bulk of structures, the open space about buildings and principal uses, and provides for such other measures that will accomplish the purposes of the zoning ordinance and the general plan (Santa Clara County 2016).

The project site is located within the -d1 Design Review Combining District, referred to as the Santa Clara County Viewshed. Because the project includes buildings over 12,500 square feet (s.f.), development must adhere to Tier 3 building standards. Applicable requirements from the Zoning Ordinance are summarized below.

- ▲ **Design Review Required.** A building or structure classified under Tier 3 shall be subject to design review, per Chapter 5.50, and will not be eligible for a discretionary exemption or administrative design review approval except when subsection G, *Exemption for Sites Not Visible*, applies. The Planning Commission shall be the approving authority for all Tier 3 design review applications.
- ▲ **Low Visibility Siting.** Tier 3 review is intended to ensure that very large buildings are sensitively sited and designed such that they do not result in viewshed impacts greater than what might result from a sensitively designed Tier 2 or Tier 1 building. A Tier 3 category building must be sited in an area of the subject property where natural topography, or a combination of topography and existing vegetation, provide at least a fundamental and sufficient measure of visibility mitigation.
- ▲ **Story Poles.** Story poles shall be required of all new buildings subject to Tier 3 design review. Story poles shall be fully erected, per the story poles standards established by the Planning Office, and shall be approved by the zoning administrator at least seven (7) full days before any scheduled hearing, including continued hearings and appeal hearings. Story poles shall, at a minimum, remain in place until the close of the public hearing.
- ▲ **Color; Light Reflectivity Value (LRV).** The LRV of exterior surfaces shall not exceed 45. The zoning administrator may additionally specify subdued chroma (color saturation) when warranted for a structure deemed to have high visibility and contrast against the site's background. The zoning administrator may waive this LRV requirement for minimal trim or other minor architectural features. LRV restrictions may be waived entirely when subsection G, *Exemption for Sites Not Visible*, applies.
- ▲ **Building Form and Massing.** Buildings not deemed exempt under subsection G shall be designed following the massing guidelines within the adopted Design Review Guidelines. In addition, the following specific limitations on wall dimensions shall apply to all Tier 1, Tier 2 and Tier 3 projects not deemed exempt under subsection G:
 - Maximum horizontal length of a continuous wall plane shall be 80 feet.
 - Maximum height of a wall plane, including foundation and other continuous components, shall be 24 feet, with the following exceptions: (a) Any architectural component where façade dimension does not exceed 18 horizontal feet, or (b) multiple such components (18 horizontal feet maximum) where combined horizontal dimension does not exceed 25 percent of the total horizontal dimension of the façade. This limitation may be varied through the design review process for wall planes not facing the valley floor or otherwise having demonstrably low visibility.

- Portions of a wall plane must be offset by at least five (5) horizontal feet to be deemed discontinuous for the purposes of this provision.
- **Ridgeline Development.** The ridgeline protection policies of the General Plan Growth and Development chapter shall be applied to any project situated on or adjacent to a ridgeline.
- **Design Review Guidelines.** All projects subject to design review shall comply with applicable provisions of the adopted Design Review Guidelines document.

San Martin Integrated Design Plan and Guidelines

The design guidelines contained within the *San Martin Integrated Design Plan and Guidelines* are intended to inform and guide public and private property development in San Martin so that the form and character of the overall community is protected and enhanced (Santa Clara County 1995). The following non-residential guidelines are applicable to the proposed project:

Architecture

- The proposed non-residential structure(s) shall enhance, through excellence of design, the San Martin community as a whole as well as the immediate neighborhood.
- The general architectural style of the non-residential structure(s) shall be compatible with the architecture of the neighboring uses and surrounding community in such a way as to enhance the desired visual character of San Martin.
- Buildings and other non-residential structures shall create an attractive exterior form by using variation in the arrangement of colors, textures and materials.
- Materials and colors shall be appropriate to ensure compatibility with the natural setting, the surrounding neighborhood and the intent of these design guidelines.
- For larger structures or developments, a more complex building shape or a cluster of smaller buildings is appropriate rather than a single large monolithic building.
- Building height shall be limited to two stories. A three-story height limit may be allowed under the County's variance procedure if such a variation meets the mandatory variance findings, and adds to the desired visual character of the development.
- Pitched roofs, generous overhangs, wide verandas and covered porches and walkways shall be encouraged while still meeting all other zoning and building code requirements. Flat roofs without western style parapets are inappropriate.

Landscaping

- A final landscape plan shall be reviewed and approved by the Architecture and Site Approval (ASA) Committee.²
- Complete final landscape plans shall be required as a condition of approval. Landscape plans shall include all existing and proposed landscaping or landscape features.
- Landscaping shall consist of a combination of trees, shrubs and groundcover. Trees shall be a prominent feature of the landscape plan. Mature trees, as well as portions of orchards, shall be retained as part of the landscaping program whenever possible.

² Recent updates to the County Zoning Ordinance resulted in elimination of the ASA Committee, and the San Martin Design Guidelines have not yet been updated to reflect this change. All ASA applications under the current ordinance are acted upon by the Zoning Administrator at a public hearing, unless the application also involves a Use Permit application, in which case the ASA and Use Permit applications are both heard and decided upon by the Planning Commission. Preliminary landscape plans are reviewed as a part of ASA application submittals, and a final landscape plan would be reviewed and approved prior to final grading/building permit issuance consistent with any approved ASA conditions.

- ▲ Landscaping shall relate to the entire development and shall be installed throughout the site and along street frontages.
- ▲ When appropriate, service areas, such as water and fuel tank areas, loading docks and open storage yards shall be screened from view.

Signage and Lighting

- ▲ Lighting shall be low level, constant in intensity and color, and shall be directed onto the property so as not to create glare and illumination on neighboring lands.

4.1.4 Analysis, Impacts, and Mitigation

ANALYSIS METHODOLOGY

Evaluation of potential aesthetic and visual resource impacts are based on a review of development considerations, site photos and visual simulations at KVPs, and documents pertaining to the project site. In determining the level of significance, this analysis assumes that the project would comply with relevant state and local ordinances and regulations, as well as the general plan policies presented above.³

THRESHOLDS OF SIGNIFICANCE

The project would cause a significant impact on visual resources if the project would:

- ▲ have a substantial adverse effect on a scenic vista;
- ▲ substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- ▲ substantially degrade the existing visual character or quality of the site and its surroundings; or
- ▲ create a new source of substantial light or glare that would adversely affect day or night-time views in the area.

Issues or Potential Impacts Not Discussed Further

Project-related impacts on scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings with a State scenic highway, were evaluated in the Initial Study. The Initial Study concluded that the impact would be less than significant. See Appendix A for the detailed evaluation.

³ This environmental determination differs from the larger policy determination of whether a proposed project is consistent with the County's General Plan policies related to visual resources. The broader General Plan consistency determination takes into account all evidence in the record concerning the project characteristics, its desirability, as well as its economic, social, and other non-environmental effects. As such, the County Board of Supervisors, the final decision-maker for the proposed project, may determine that the proposed project is (or is not) consistent with the County's General Plan despite any conclusion reached by the EIR that the proposed project may (or may not) conflict with policies adopted for the purpose of avoiding or mitigating an environmental impact.

IMPACTS AND MITIGATION MEASURES

Impact 4.1-1: Have a substantial adverse effect on a scenic vista.

There are no designated scenic vistas on the project site. The front portion of the project site is generally not visible from the valley floor; however, a bedrock ridge spans the northern boundary of the project site. The ridge is the most visible portion of the site, although views of the ridge from outside the immediate vicinity of the project are often obstructed by intervening buildings and vegetation. Proposed structures would be subject to various levels of design review (levels depend on building size), including the small accessory structures (tent platforms, bath houses, and water tanks), which are proposed to be located on or near the ridgeline. Compliance with the County's design review process would require appropriate siting and design, and would reduce potential impacts to a **less-than-significant** level.

A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. A substantial adverse effect to such a scenic vista is one that would degrade the view from such a designated view spot. As shown on Exhibit 4.1-1, an east-west trending bedrock ridge spans the northern boundary of the project site separating the flat area of the site from the Llagas Creek corridor. There are no designated scenic vistas of this ridgeline.

The project site is within the -d1 overlay district, where the construction of new buildings that will be visible from the Santa Clara Valley floor are subject to specific standards and findings listed in Section 3.20.040 of the County Zoning Ordinance. Exhibit 4.1-2 shows potential visibility of the project site and adjacent -d1 parcels. The front portion of the project site is generally not visible from the valley floor, while visibility in the interior ranges from medium to high, with the most visible portion being the ridge on the north end of the parcel that parallels Llagas Creek. However, this mapping assumes bare earth conditions. In reality, intervening buildings and vegetation substantially limit views of the project site outside of the immediate vicinity.

As discussed in Section 4.1.3, "Regulatory Setting," the project would be subject to Tier 3 level of review because more than 12,500 s.f. of gross floor area is proposed, the community building being approximately 14,500 square feet. Tier 3 review is intended to ensure that very large buildings are sensitively sited and designed such that they do not result in viewshed impacts greater than what might result from a sensitively designed Tier 2 or Tier 1 building (smaller than 12,500 square feet). A Tier 3 category building must be sited in an area of the subject property where natural topography, or a combination of topography and existing vegetation, provide at least a fundamental and sufficient measure of visibility mitigation ("Low Visibility Siting"). The mosque (8,900 square feet), caretaker's residence (3,800 square feet), and accessory structures such as the camp facility and maintenance building (2,500 square feet), are also subject to design review, although at a lower tier as stipulated in the zoning ordinance because of their smaller sizes.

As noted under "Views of Project Site and Viewer Sensitivity," intervening buildings and vegetation substantially limit views of the project site outside of the immediate vicinity (see Exhibits 4.1-4 through 4.1-7 provided under Impact 4.1-2 below). Exhibit 4.1-2 shows that all of the caretaker's residence and most of the mosque and community buildings are located in the front portion of the parcel that is not visible from the valley floor. However, because a portion of the community building would be located in an area with medium visibility, the project is not eligible for discretionary exemption from the Design Review process, and compliance with County Zoning Ordinance Section 5.50 "Design Review" is required.



Existing View



Simulated View - Proposed Entrance on Monterey Road

Source: Prepared by Animate House Visual Simulators in 2018

X15010024 01 014

Exhibit 4.1-4

View of the Project Site from Monterey Road Looking West (KVP #2)





Existing View



Simulated View

Source: Prepared by Animate House Visual Simulators in 2018

X15010024 01 022

Exhibit 4.1-5

**View of the Project Site from Southbound Monterey Road
Looking Southwest (KVP #1)**





Existing View



Simulated View

Source: Prepared by Animate House Visual Simulators in 2018

X15010024 01 012

Exhibit 4.1-6

**View of the Project Site from Monterey Road and
California Avenue Looking Northwest (KVP #3)**





Existing View



Simulated View

Source: Prepared by Animate House Visual Simulators in 2018

X15010024 01 013

Exhibit 4.1-7

View of the Project Site from California Avenue Looking North (KVP #4)



The project as proposed would appear to meet the “Low Visibility Siting” requirement for Tier 3 Design Review, given that most of the community building would be located in that portion of the parcel that is not visible from the valley floor, and vegetation and structures within the valley floor obscure views of the project site from public vantage points on the valley floor. The boy’s and girl’s tent camp, including two 290-s.f. bathhouses and 14 square wooden tent platforms (12 foot by 12 foot), and the two 5,000-gallon water tanks (up to 12 feet in height) to support the project, would be located on the portion of the property that is medium-high to high visibility, as shown on Exhibit 4.1-2. However, the tents would only be erected during up to nine, one-week camps per summer. The bathhouses and tents would be one-story structures (up to 12 feet high). While individually these structures would be exempt from the design review requirements, given their location in higher visibility areas of the project site, and their cumulative area, the County’s design review findings would apply, and conditions related to landscape screening, color, and Light Reflectivity Value standards would be required for these structures and tents, to minimize their visibility from Monterey Road and adjacent areas. With the addition of these conditions, and given the relatively small cumulative area of these structures, their temporary nature, and their location on only a portion of the ridge, the visibility of the camp and related structures would be low from any vantage point on the valley floor. For all the reasons described above, the proposed project would not have a substantial adverse effect on a scenic vista. Therefore, this impact would be **less than significant**, and no mitigation is required.

Impact 4.1-2: Substantially degrade the existing visual character or quality of the site and its surroundings.

Construction activities on the project site would occur over a span of approximately 4 years, and, although construction activities would change the visual character of the site by exposing soil and placing equipment and materials on site, this adverse effect would be temporary, and dust would be controlled by implementing best management practices (BMPs). Therefore, the construction phase of the project would not result in substantial adverse visual change to the project site. The operational phase of the project would place several structures and other facilities on the site where currently no structures exist. This would be a **potentially significant** impact. However, the structures would be subject to the County’s design review procedure and San Martin Integrated Design Plan and Guidelines standards, and mitigation to visually screen the proposed development from viewpoints along public roads would be required. Therefore, although the visual character of the site would change as a result of the project, following mitigation this impact would be **less than significant**.

The project site is currently vacant and consists of previously cultivated grassland, scattered oak trees on the creek ridgeline, and two large trees in the center of the site. The surrounding landscape is rural residential, with neighboring industrial and agricultural facilities. Scenic resources exist on the project site including Llagas Creek, the ridge at the northern end of the project site, and two trees protected under the *Santa Clara County Municipal Code, Division C16-2 – Tree Preservation and Removal*. Unobstructed views of the project site, including the two existing trees and the ridge are primarily provided from surrounding roadways, including Monterey Road and California Avenue, as well as from the rural residents in the immediate area. Llagas Creek is located behind the ridge at the north end of the project site and therefore is not visible from the project site (except for the top of the ridge) or surrounding roadways. Visual quality of the project site is high given its natural state and the scenic resources present.

Construction Impacts

Over the approximately 4-year construction period, construction would occur between 7:00 a.m. and 7:00 p.m., Monday through Friday; no nighttime construction would occur. Equipment used during project construction would include graders, dozers, excavators, and other large tractors and pieces of equipment. Visible signs of construction, including exposed dirt, large equipment, and construction materials would be present on site throughout the 4-year construction period. This would degrade the natural visual character and quality of the project site. Construction impacts would be noticeable to area residents and motorists along the local road system.

However, construction activities would be temporary. Construction equipment and staged materials for certain construction phases would be removed when no longer needed for subsequent construction phases, thereby reducing the amount of construction equipment on site at any one time. Standard construction methods and BMPs, such as watering for dust control, would be followed to minimize the visual effects caused by construction (such as dust clouds).

Therefore, given the temporary nature of construction and implementation of dust control measures, project construction would not substantially degrade the visual quality of the site.

Operation Impacts

As shown on Exhibit 3-5 (see Chapter 3, “Project Description”), a significant portion of the project site would be developed with structures; associated parking areas, walkways, plazas, and landscaping; a driveway; recreational facilities, including play fields and a youth camp; stormwater and wastewater treatment areas; two 5,000-gallon water tanks; and a cemetery. The proposed structures include a two-story 8,900 s.f. mosque that would include two domes at a maximum height of 35 feet, a two-story 14,500 s.f. community building, a 3,800 s.f. caretaker’s dwelling, a 2,500 s.f. maintenance building, and two separate 290 s.f. bathhouses located at the youth camp. The mosque and community building would be separated by an outdoor community plaza with small landscaped islands. Exhibit 3-6 illustrates general building design, as viewed from the proposed access road along the southern property boundary. The cemetery would be terraced, planted in native grasses, and contain flat markers that lie flush with the grass.

Most of the proposed development would occur in a relatively flat portion of the property along the southern property line. The proposed structure nearest to Monterey Road to the east would be the community building, which would be set back more than 200 feet from the road. The distance between the locations of the proposed mosque and community building and California Avenue would be approximately 700 feet. The two large trees protected under the *Santa Clara County Municipal Code, Division C16-2 – Tree Preservation and Removal* located near the center of the project site would be removed. The proposed landscape plan (see Exhibits 3-7a and 3-7b in Chapter 3, “Project Description”) includes sixteen native oak trees (four coast live oak or canyon live oak, nine interior live oak, and three valley oaks). The number of trees included in the proposed landscaping would exceed the tree replacement requirements of Santa Clara County’s Guidelines for Tree Protection and Preservation for Land Use Applications.

Sixteen native oaks are proposed to be planted west of the driveway leading to the caretaker’s residence, along the southwestern face of the community building, and east and west of the maintenance building. Once mature (10 or more years), these trees would provide some visual screening of views of the proposed development from Monterey Road south of the project driveway and from California Avenue. Fruit trees are proposed to be planted in an approximately 0.6-acre area along Monterey Road with the intent to create a visual screen between the sanctuary space and the road and provide a rural amenity consistent with the agricultural history of the South Valley. However, this orchard would cover less than 1 percent of the project site. In addition, the value of these trees in screening views of the project site from Monterey Road would be limited by their moderate height (15–25 feet tall at maturity [5–10 years]) and their being deciduous (lack of leaves during the winter months would limit visual screening).

Exhibits 4.1-4 through 4.1-7, which were provided by the project proponent, depict views of the project site from the Key Viewpoint Locations shown in Exhibit 4.1-3 in the short-term (0–10 years). Although simulations (Exhibits 4.1-8 and 4.1-9) provided by the project proponent illustrate that mature landscaping would provide significant screening of the mosque and community building from viewpoints along California Avenue and near its intersection with Monterey Road, the new facilities on the project site would be visible to residents and motorists in the near term. And as noted above, the proposed orchard would provide limited screening from Monterey Road. In addition, there is no proposed landscaping where the youth summer camp would be located. Although these structures are limited to two separate 290 s.f. bathhouses and tent platforms that would only have tents erected on them during the summer months, these structures would be located on the western portion of the ridge, which is more visible from Monterey Road and California Avenue than the rest of the project site.



KVP #1 Simulated view with mature vegetation



KVP #2 Simulated view with mature vegetation

Source: Animate House Visual Simulators and Ascent Environmental 2017

X15010024 01 026

Exhibit 4.1-8

Simulated Views of Project with Mature Trees (KVP #1 and #2)





KVP #3 Simulated view with mature vegetation



KVP #4 Simulated view with mature vegetation

Source: Animate House Visual Simulators and Ascent Environmental 2017

X15010024 01 027

Exhibit 4.1-9

Simulated Views of Project with Mature Trees (KVP #3 and #4)



In conclusion, the proposed project would change the visual character of the entire site from a vacant field and ridge to an institutional development. The intensity of the development given the site's natural state would constitute a substantial degradation of the existing visual character and quality of the site and its surroundings. Although landscaping has been proposed to provide a visual screen of the proposed development from public viewpoints, this landscaping does not appear sufficient to fully screen the development even by the time it is mature and may not be fully consistent with the San Martin Integrated Design Plan and Guidelines. Therefore, this impact would be **significant**, and mitigation is required.

Mitigation Measure 4.1-2: Updated Landscape Plan for Project Site Screening.

Prior to issuance of any grading or building permits, the applicant shall submit to the County Planning Office an updated landscaping plan that conforms to the San Martin Integrated Design Plan and Guidelines and that demonstrates through use of evergreen plantings of sufficient height, depth, and location that all project structures as well as the youth summer camp will be screened from public view at the Key Viewpoint locations on Monterey Road and California Avenue.

Significance after Mitigation

With implementation of Mitigation Measure 4.1-2, evergreen trees would be planted (consistent with the San Martin Integrated Design Plan and Guidelines) that would eventually grow to a height that would substantially screen the proposed structures from visibility year-round. This would reduce impacts associated with changes to the character of the site to a **less-than-significant** level.

Impact 4.1-3: Create a new source of substantial light or glare that would adversely affect day or night-time views in the area.

The project would add sources of light, but the lighting plan submitted by the applicant would be consistent with County requirements and would be low level, constant in intensity and color, and directed to avoid glare and illumination onto neighboring properties. In addition, the proposed on-site trees would obscure lighting from view from neighboring areas. This impact would be **less than significant**.

Very few sources of light and glare currently exist in the vicinity of the project site. Existing sources of light and glare in the surrounding area include the rural residences along California Avenue, the neighboring industrial and agricultural buildings, and traffic on the local roadway system.

Construction is expected to occur between 7:00 a.m. and 7:00 p.m. Monday through Friday, and no nighttime construction is expected. Therefore, no substantial new sources of light would occur during the 4-year construction period. Construction equipment does not generally include highly reflective materials and does not typically cause substantial daytime glare. Therefore, substantial construction-period glare is not expected to occur.

Once operational, the project would introduce new sources of light and glare to the project site which could be visible to off-site viewers, including residents and motorists. The new buildings would not include mirrored or highly reflective surfaces and, per the Zoning Ordinance for sites designated -d1 (Santa Clara Valley Viewshed), the LRV of all exterior surfaces must not exceed 45. This would minimize glare from the new buildings and camps on site. Also, reflective surfaces associated with cars parked in the proposed parking lots could reflect sunlight; however, proposed tree plantings would mostly screen the parking lots from view (once trees are mature).

The lighting plan proposed by the applicant would include outdoor security lighting on buildings that is downward directed and shielded, and low voltage lighting in landscaped areas. Pole lighting in parking areas would also be directed downward and shielded. An outdoor lighting plan has been prepared, which identifies light designs that direct light downward, reducing skyglow and minimizing the potential for light to shine outside of the immediate vicinity of the project site and reducing nighttime glare on nearby roads and residential properties.

The proposed lighting plan is consistent with the *San Martin Integrated Design Plan and Guidelines*, which require project lighting to be low level, constant in intensity and color, and directed onto the property to avoid glare and illumination onto neighboring properties. This requirement for downward facing lighting also minimizes the potential for the project to result in impacts related to light pollution. Moreover, the proposed private orchard and trees lining the access road would also screen glare and nighttime light from neighboring areas.

With adherence to the Zoning Ordinance requirements, new sources of light or glare would not substantially affect off-site viewers. Therefore, the impact would be **less than significant** and no mitigation is required.

CUMULATIVE IMPACTS

Impact 4.1-4: Contribution to cumulative effects related to substantial adverse effects on a scenic vista.

Less-than-considerable contribution. As discussed above under Impact 4.1-1, there are no designated scenic vistas on the project site. Proposed structures would be subject to various levels of design review (levels depend on building size), including the small accessory structures (tent platforms, bath houses, and water tanks), which are proposed to be located on or near the ridgeline. Compliance with the County's design review process would require appropriate siting and design to visibility of the structures and would minimize potential impact. There are no other projects proposed in high visibility areas on this or other ridgelines in the vicinity, and any future development proposed on ridgelines in this area would be subject to similar design review requirements. Therefore, the project would result in a **less-than-considerable** contribution to a cumulative effect on a scenic vista.

Although no designated scenic vistas are located on the project site and the front portion of the project site is generally not visible from the valley floor, a bedrock ridge, which is the most visible feature on the site, spans the site's northern boundary. Although the ridge is visible, views of the ridge from outside the immediate vicinity of the project are limited by intervening buildings and vegetation. The project includes a variety of structure sizes. The largest proposed structure, the community center, would be subject to the strict design standards (Tier 3 Design Review), which require "Low Visibility Siting" requirements. The community center building appears to be sited consistent with these standards. Other structures would be subject to lower levels of design review. The small accessory structures (tent platforms, bath houses, and water tanks) would, individually, be exempt from the design review requirements; however, given their location in higher visibility areas of the project site, and their cumulative area, the County's design review findings would apply, and conditions related to landscape screening, color, and Light Reflectivity Value standards would be required to minimize their visibility from Monterey Road and adjacent areas. As described in Impact 4.1-1 above, compliance with County design review requirements would minimize project impacts.

As shown in Exhibit 4.1-3, the Patel RV Park, proposed on the adjacent parcel, would not be highly visible and is not located in a design review district. No other developments are proposed in the vicinity that would be located on the ridge. Therefore, the project would result in a **less-than-considerable contribution** to cumulative impacts associated with effects on a scenic vista.

Impact 4.1-5: Contribution to cumulative effects related to substantial degradation of the existing visual character or quality of the site and its surroundings.

Less-than-considerable contribution after mitigation. Minimal development is proposed in the region. The most prominent development proposed is an RV park located immediately adjacent to the project site, which would be visible from the same public viewpoints. Due to the proximity of the proposed Cordoba Center project to the proposed RV park site, the visual effects of both projects would have a combining effect. However, with implementation of Mitigation Measure 4.1-2, the proposed project would be required to maintain an appearance that is consistent with the rural character of southern Santa Clara County and includes extensive tree planting, which would minimize the project's contribution to the combined effect; therefore, the proposed project's contribution to a cumulative impact would be **less than considerable**.

As shown in Table 4-1 at the beginning of Chapter 4 of this Draft EIR, the list of probable future projects in the region is minimal. The most prominent probable future development identified is the RV park proposed on the property immediately adjacent to the Cordoba Center project site's southern border. The RV park proposal currently includes 124 temporary RV spaces and an office structure. Due to the size and proximity of the proposed Cordoba Center project and the proposed RV park site, the visual effects of both of these projects would have a combining effect.

As proposed, the two uses would combine to develop this rural open space with structures, RVs, and supporting improvements. As identified above, Mitigation Measure 4.1-2 would be required to ensure that landscaping is sufficient to fully screen the proposed Cordoba Center development from public viewpoints along Monterey Road and California Avenue. Similarly, the proposed RV park would also be required to be consistent with the design and landscaping standards within the San Martin Integrated Design Plan and Guidelines.

The visual screening by the on-site trees would maintain an appearance that is consistent with the rural character of the southern Santa Clara County community. In addition, the project would not place prominent development on the ridgeline, and trees would be removed in compliance with the County's tree ordinance and would be replaced by a much greater number of trees. For these reasons Impact 4.1-2 concludes that the project's individual contribution to the cumulative impact would be minimized. Therefore, the project's cumulative contribution to impacts related to regional visual character or visual resources in the region would be **less than considerable**.

Impact 4.1-6: Contribution to cumulative increases in light and glare that would adversely affect day or night-time views in the area.

Less-than-considerable contribution. Minimal development is proposed in the project region; therefore, minimal additional lighting would occur. The most prominent probable future development is an RV park located adjacent to the project site. Although there may be lighting associated with the RV park, the proposed project would add minimal lighting to the project vicinity. Proposed project lighting would be low level, constant in intensity and color, and directed to avoid glare and illumination onto neighboring properties. This also minimizes potential for light pollution and contribution to sky glow. Proposed trees would screen views of project lights from neighboring properties. Therefore, the project's contribution to cumulative impacts related to light and glare in the region would be **less than considerable**.

Table 4-1 at the beginning of Chapter 4 of this Draft EIR lists the probable future projects in the region. As shown, the number of probable future projects is minimal. The most prominent probable future development identified is the RV park proposed on the property immediately adjacent to the Cordoba Center project site's southern border. The RV park proposal currently includes 124 RV spaces and support structures. Due to the size and proximity of the proposed Cordoba Center project to the proposed RV park site, the lighting associated with both of these projects could potentially have a combining effect. As described in Impact 4.1-3, an outdoor lighting plan has been prepared for the project, which identifies light

designs that direct light downward, reducing skyglow and minimizing the potential for light to shine outside of the immediate vicinity of the project site and reducing nighttime glare on nearby roads and residential properties. This is consistent with the *San Martin Integrated Design Plan and Guidelines*, which require project lighting to be low level, constant in intensity and color, and directed onto the property to avoid glare and illumination onto neighboring properties. This requirement for downward facing lighting also minimizes the potential for the project to result in impacts related to light pollution. Moreover, the proposed private orchard and trees lining the access road would also screen glare and nighttime light from neighboring areas. With adherence to the Zoning Ordinance requirements, new sources of light or glare would not substantially affect off-site viewers. Therefore, project's contribution to a cumulative impact related to light and glare in the region would be **less than considerable**.

4.2 CULTURAL RESOURCES

4.2.1 Introduction

This section analyzes and evaluates the potential impacts of the proposed project on known and currently unknown cultural resources, including archaeological, historical, and unknown fossil deposits of paleontological importance.

4.2.2 Environmental Setting

PREHISTORIC SETTING

Until recently, the cultural history of the Central California coast and inland region has been poorly documented. In the last decades, this has slowly changed as hundreds of archaeological surveys and excavations have been conducted in the area. The majority of this work was undertaken to comply with the California Environmental Quality Act (CEQA), the National Historic Preservation Act (NHPA), and the National Environmental Policy Act of 1969 (NEPA).

A model of subsistence and settlement change was developed in 1973 based on a 12,000-acre survey area containing 50 prehistoric sites. The model proposed a diachronic sequence beginning with a Millingstone Horizon (7000–4000 before present [B.P.]), continuing with a Middle Horizon (4000–1500 B.P.), and concluding with a Protohistoric Period (1500–400 B.P.). In 1993 reevaluation of previous research of the area led to the development of a general culture change sequence for the area. Again, divided into three periods (Early Period, 4500–2500 B.P.; Middle Period, 2500–850 B.P.; and Late Period, post-850 B.P.), the sequence is one of decreasing mobility through time because of population pressure and subsequent limitation of resource access. The Early Period is characterized by a high degree of mobility, with sites in the area containing a wide array of faunal remains from both the immediate area and the coast. These faunal remains suggest that the area was occupied from spring through fall, with a possible complementary winter settlement pattern noted on the coast. In the Middle Period, mobility appears to have decreased, since sites with faunal constituents indicate possible year-round occupation. Marine shell becomes less frequent, structures more substantial, and the variety of tools much larger. Residential mobility is all but gone in the Late Period, as the lack of marine shell and predominance of local flora and fauna in the sites suggests. This reduction in territorial base and emphasis on more local resources appears compatible with the Spanish explorers' accounts of aboriginal settlement patterns (Pacific Legacy 2016).

The currently-used chronological system that reflects the significant variability and stylistic/typological transitions seen in artifact assemblages from the Central Coast and adjacent inland areas was developed in 2007. The system identifies six periods [Paleo-Indian, pre-8000 cal B.C. (calibrated years before Christ); Millingstone (or Early Archaic), 8000–3500 cal B.C.; Early, 3500–600 cal B.C.; Middle, 600 cal B.C.–cal anno Domini (A.D.) 1000; Middle/Late Transition, cal A.D. 1000–1250; and Late, cal A.D. –1769]. Three cultures (the Millingstone Culture, the Hunting Culture, and the Late Period) are used to reflect broader patterns (Pacific Legacy 2016).

The Millingstone Culture is the earliest well-established sequence and dates to the Millingstone or Early Archaic Period. This period is defined by the presence of large numbers of handstones, millingslabs, crude core tools, and lesser amounts of flaked stone tools and large side-notched projectile points. Millingstone occupations have been located in a variety of settings from the coast to the nearshore interior valleys. (Pacific Legacy 2016).

The Hunting Culture spans the Early and Middle Periods and is defined by an abundance of stemmed and notched projectile points and large bifaces. The Early Period is marked by the presence of contracting stemmed, Rossi square-stemmed, and large side-notched projectile points. Middle Period sites include contracting-stemmed and large-stemmed points, but no square-stemmed or large side-notched points. Hunting Culture sites occur mainly in coastal areas but extend into nearby valleys as well. Acorns may also have been part of the Hunting Culture diet (Pacific Legacy 2016).

The Middle/Late Transition Period exhibits increasing numbers of arrow points and decreasing numbers of stemmed points. The Late Period is defined by the abundance of Desert side-notched and Cottonwood arrow points. Unlike earlier periods, Late Period sites are more common in the interior than on the coast (Pacific Legacy 2016).

Ethnography

The ethnographically-known aboriginal inhabitants of the region were part of the Ohlone language group. The Ohlone languages belong to the Utian family of the Penutian language stock and were spoken in a large area extending from the San Francisco Bay Area southward along the coast to Point Sur and inland to the Diablo Range and portions of the northern San Joaquin Valley (Pacific Legacy 2016).

Political Organization

The basic Ohlone political unit was the “tribelet,” an autonomous, self-governing, territorially defined unit over which recognized authority was given to one person, in most instances the leader or chief. Each tribelet would be composed of one or more villages and a number of camps within its recognized and protected resource exploitation zone. Over time several of these tribelets amalgamated into larger tribal units. Due to geographic barriers and distance between Ohlone tribelets, however, the integration of smaller political units into larger ones was the exception rather than the rule among the Ohlone (Pacific Legacy 2016).

Recent studies have suggested that socio-political groups were essentially clusters of unrelated family groups that formed loose cooperative communities in the event of ceremonial festivals, group harvesting efforts, and inter-family conflict resolution. These disparate multi-family communities joined for the majority of the year to form a large village centrally located between their lands. In other instances, rather than forming a single village, these family units distributed themselves into as many as five semi-permanent villages (Pacific Legacy 2016).

Subsistence, Trade, and Material Culture

The Ohlone were hunter-gatherers who occupied semi-permanent camps and villages from which they could take advantage of seasonal changes in resource availability. Dwellings at these habitation sites were dome-shaped, with pole frameworks and thatch for roof and walls. Other structures that could be found in an Ohlone village included: acorn granaries; sweat houses for the men, often located along stream banks; menstrual houses for women; and dance houses and assembly houses, generally located in the center of a village. From these villages the Ohlone visited the mountains, valleys and sloughs to collect resources.

The early explorer Vizcaíno noted a diverse diet among the Ohlone people, which included seeds (dock, tarweed, chia), nuts (pine nuts, buckeye, hazel, pepper/bay nuts), berries (manzanita), grasses, roots, and insects that were gathered nearby. To promote the growth of seed-bearing annuals and control the growth of rampant chaparral species, the Ohlone periodically burned vegetation in areas surrounding village sites or in areas of food gathering and hunting. The single most important food item among the Ohlone was the acorn, at least four species of which were collected and processed into meal or flour. Terrestrial animals also formed a large portion of the Ohlone diet, and included birds and small mammals, which were hunted, clubbed, trapped, and snared. Fish were also hooked or caught by hand. Shellfish provided an important seasonal food resource (Pacific Legacy 2016).

Regional interaction among the Ohlone, and with neighboring cultures such as the Salinan and Yokuts took place through trade, ceremonies, warfare, and intermarriage. Shell beads were widely used by the Ohlone as a form of currency in exchanges. *Olivella* shells, mussels, abalone shells, salt, dried abalone, woven baskets,

and other items were traded for prized goods with nearby villages and with more distant villages located in dissimilar environmental zones. Among the items received by the Ohlone in such transactions were stores of the prized piñon nut and obsidian for tool-making (Pacific Legacy 2016).

REGIONAL HISTORIC SETTING

In 1769, the Moncado Party of Spanish explorers discovered the Santa Clara Valley by accident, while searching for Monterey Bay. The initial Spanish settlements included missions, presidios and pueblos, colonized “to save the souls of the Indians and to secure the territory against foreign intrusion.” The mission lands were secularized in the early 1800s and large land holdings were granted to prominent Mexican families between 1810 and 1840. A few English-speaking settlers came to the Valley beginning in 1813; however, the first big wave of American pioneers (the Bidwell Party and the Stevens-Murphy-Townsend Party) did not arrive until the 1840s. Many archaeological sites in the County are connected with the history of the Ohlone Indians. Native American burial sites and sacred sites are protected resources because of their spiritual importance to Native American tribes still in the area (Santa Clara County 1994: SP-1).

Population in the Valley remained steady between 1844 and 1851, when discovery of gold in 1848 drew incoming pioneers to other parts of the state. In the meantime, families took advantage of statehood, which ended the restriction of land ownership to Mexican citizens only, and they began purchasing the Ranchos of the Castro, Hernandez, and Peralta families. In the subsequent years, Martin Murphy, Sr. purchased and owned most of the area between present-day Sunnyvale and Gilroy (Santa Clara County 1994: SP-1).

In 1864, the Central Railroad (now Southern Pacific) completed a line between San Francisco and San Jose. Several owners of large homesteads (including Martin Murphy’s heirs) began selling 5- and 10-acre parcels for small ranches. Weather and soil conditions allowed for fruit and viticulture, and agricultural enterprises in Santa Clara Valley flourished well into the 20th century. The industrialization of the northern Santa Clara Valley took place in the 1970s and 1980s. Development pressures resulting from the influx of the microchip and other high-technology industries caused the urbanization of much of the rural and agricultural land in that area (Santa Clara County 1994: SP-1).

LOCAL HISTORIC SETTING

At least two buildings were previously located on the project site (USGS 1955). Per a site reconnaissance conducted in January 2017, the project site is currently vacant with no structures, although remnants of former uses of the project site, including building foundations, signs, and partial fences are present. The *Santa Clara County Heritage Resource Inventory* lists historical resources that represent the major historical patterns, significant personages, and architectural features that shaped southern Santa Clara County (Santa Clara County n.d.). Many resources listed in the Heritage Resource Inventory are eligible for listing in the National Register of Historic Places as well as the California Register of Historical Resources. There are no historic buildings or structures in the project area, as identified by the *Santa Clara County Heritage Resource Inventory*.

RECORDS SEARCH

Paleontology Records Search

Significant vertebrate and invertebrate fossils and unique geologic units have been documented throughout California. The fossil-yielding potential of a particular area is highly dependent on the geologic age and origin of the underlying rocks. Paleontological potential refers to the likelihood that a rock unit will yield a unique or significant paleontological resource. All sedimentary rocks, some volcanic rocks, and some low-grade metamorphic rocks have potential to yield significant paleontological resources. Depending on location, the paleontological potential of subsurface materials generally increases with depth beneath the surface, as well as with proximity to known fossiliferous deposits.

Searches of the University of California Museum of Paleontology (UCMP) database were conducted in March 2017. Records of paleontological finds maintained by UCMP report that there are a total of 319 localities at which fossil remains have been found in Santa Clara County. According to the Geologic Map of California (California Department of Conservation 2010), the project site is underlain by Quaternary alluvium, lake, playa, and terrace deposits, which consists of marine and nonmarine (continental sedimentary) rocks from the Pleistocene. There are no records of any fossils in Quaternary alluvium in Santa Clara County; therefore, the likelihood of uncovering unknown paleontological resources is low (UCMP 2017). Immediately south of the project site, soils contain marine sedimentary and metasedimentary rocks of the Franciscan Complex, which contains Cretaceous and Jurassic sandstone with smaller amounts of shale, chert, limestone, and conglomerate. There are 9 records of microfossils located within the Franciscan Complex in Santa Clara County (UCMP 2017); however, the database did not list any paleontological resources of any type on or near the project site (UCMP 2017). Although no paleontological resources have been recorded at the project site, given its proximity to the Franciscan Complex, there is a low-moderate potential to discover unknown paleontological resources on site.

Archaeological Resource Literature Review

A Cultural Resource Evaluation was prepared by Archaeological Resource Management for the project site on October 15, 2007. The evaluation included a study of the maps and records at the Northwest Information Center of the California Archaeological Site Inventory (NWIC #07-0145). The archival research revealed that no previously recorded sites are located within or adjacent to the project site. However, the Office of Historic Preservation determined that the project site has the possibility of containing unrecorded archaeological sites and recommended that the property be evaluated by a qualified archaeologist.

A general surface reconnaissance was conducted by a field archaeologist on all open land surfaces on the project site. A controlled intuitive reconnaissance was performed in places where burrowing animals, exposed banks and inclines, and other activities had revealed subsurface stratigraphy and soil contents. Rock types noted within the project site include gravel and bedrock of Franciscan chert and metamorphic stone, as well as a small historic rock quarry on the hillside above Llagas Creek. This quarry is located well outside the area proposed for construction. No additional cultural materials, prehistoric or historic, were noted within the project site (Archaeological Resource Management 2007).

4.2.3 Regulatory Setting

FEDERAL

Section 106 of the National Historic Preservation Act

Federal protection of resources is legislated by (a) the NHPA of 1966 as amended by 16 U.S. Code 470, (b) the Archaeological Resource Protection Act of 1979, and (c) the Advisory Council on Historical Preservation. These laws and organizations maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP).

Section 106 of the NHPA and accompanying regulations (36 Code of Federal Regulations Part 800) constitute the main federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed in, or may be eligible for listing in the NRHP. The NRHP is the nation's master inventory of known historic resources. It is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, and cultural districts that are considered significant at the national, state, or local level.

The formal criteria (36 Code of Federal Regulations Part 60.4) for determining NRHP eligibility are as follows:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);
2. It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and
3. It possesses at least one of the following characteristics:
 - a. Association with events that have made a significant contribution to the broad patterns of history (events).
 - b. Association with the lives of persons significant in the past (persons).
 - c. Distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture).
 - d. Has yielded, or may be likely to yield, information important to prehistory or history (information potential).

Listing in the NRHP does not entail specific protection or assistance for a property but it does guarantee recognition in planning for federal or federally-assisted projects, eligibility for federal tax benefits, and qualification for federal historic preservation assistance. Additionally, project effects on properties listed in the NRHP must be evaluated under CEQA.

The National Register Bulletin also provides guidance in the evaluation of archaeological site significance. If a heritage property cannot be placed within a particular theme or time period, and thereby lacks “focus,” it is considered not eligible for the NRHP. In further expanding upon the generalized National Register criteria, evaluation standards for linear features (such as roads, trails, fence lines, railroads, ditches, flumes, etc.) are considered in terms of four related criteria that account for specific elements that define engineering and construction methods of linear features: (1) size and length; (2) presence of distinctive engineering features and associated properties; (3) structural integrity; and (4) setting. The highest probability for National Register eligibility exists within the intact, longer segments, where multiple criteria coincide.

STATE

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on both “historical resources” and “unique archaeological resources.” Pursuant to Public Resources Code (PRC) Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Section 21083.2 requires agencies to determine whether proposed projects would have effects on unique archaeological resources.

Historical Resources

“Historical resource” is a term with a defined statutory meaning (PRC, Section 21084.1; determining significant impacts to historical and archaeological resources is described in the State CEQA Guidelines, Sections 15064.5[a] and [b]). Under State CEQA Guidelines Section 15064.5(a), historical resources include the following:

- 1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (PRC, Section 5024.1).

- 2) A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g), will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- 3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the California Register of Historical Resources (PRC Section 5024.1), including the following:
 - a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - b) Is associated with the lives of persons important in our past;
 - c) 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; or
 - d) Has yielded, or may be likely to yield, information important in prehistory or history.
- 4) The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Unique Archaeological Resources

CEQA also requires lead agencies to consider whether projects will adversely affect unique archaeological resources. PRC Section 21083.2, subdivision (g), states that unique archaeological resource means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Tribal Cultural Resources

CEQA also requires lead agencies to consider whether projects will adversely affect tribal cultural resources. PRC Section 21074 states the following:

- a) "Tribal cultural resources" are either of the following:
 - 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are eligible for the California Register of Historical Resources (CRHR). The CRHR is a listing of State of California resources that are significant within the context of California’s history. The CRHR is a statewide program of similar scope and with similar criteria for inclusion as those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historic resource must be significant at the local, state, or national level under one or more of the criteria defined in the California Code of Regulations Title 15, Chapter 11.5, Section 4850 to be included in the CRHR. The CRHR criteria are similar to the NRHP criteria and are tied to CEQA because any resource that meets the criteria below is considered a significant historical resource under CEQA. As noted above, all resources listed in or formally determined eligible for the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria:

1. Is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. Is associated with the lives of persons important to local, California, or national history.
3. 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.
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Similar to the NRHP, a resource must meet one of the above criteria and retain integrity. The CRHR uses the same seven aspects of integrity as the NRHP described above.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity cease and the County coroner be notified. If the remains are of a Native American, the coroner must notify the (NAHC, which notifies and has the authority to designate the most likely descendant (MLD) of the deceased. The act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

Health and Safety Code, Sections 7052 and 7050.5

Section 7052 of the Health and Safety Code states that the disturbance of Native American cemeteries is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered

human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC.

Public Resources Code, Section 5097

PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC. Section 5097.5 states the following:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Assembly Bill 52 (Statutes of 2014)

Assembly Bill (AB) 52, signed by Governor Edmund G. Brown, Jr., in September of 2014, establishes a new class of resources under CEQA: “tribal cultural resources.” It requires that lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation once the lead agency determines that the application for the project is complete, before the issuance of a notice of preparation (NOP) of an environmental impact report (EIR) or notice of intent to adopt a negative declaration or mitigated negative declaration. AB 52 also requires revision to CEQA Appendix G, the environmental checklist. This revision would create a new category for “tribal cultural resources.”

AB 52 currently applies to those projects for which a lead agency had issued a NOP of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration on or after July 1, 2015. The NOP for this project was issued on December 9, 2016. Therefore, the requirements of AB 52 apply. Santa Clara County initiated the AB 52 procedures with notifications to all tribes identified by the Native American Heritage Commission as being potentially affiliated with the project area. None of the Tribes that received the notification have requested consultation. Impacts related to Tribal Cultural Resources are addressed in the Initial Study, included as Appendix A. Impacts were determined to be less than significant. Correspondence in compliance with AB 52 is provided in Appendix D of this Draft EIR.

LOCAL

Santa Clara County General Plan

The Resource Conservation section of the *Santa Clara County General Plan* (Santa Clara County 1994) contains several goals and objectives related to the identification, protection, and enhancement of important cultural resources in the unincorporated areas of Santa Clara County. Strategies and policies that are applicable to the project include the following:

- ▲ **Policy C-RC 50:** Countywide, the general approach to heritage resource protection should include the following strategies:
 1. Inventory and evaluate heritage resources.
 2. Prevent or minimize adverse impacts on heritage resources.
 3. Restore, enhance, and commemorate resources as appropriate.
- ▲ **Policy C-RC 52:** Prevention of unnecessary losses to heritage resources should be ensured as much as possible through adequate ordinances, regulations, and standard review procedures. Mitigation efforts, such as relocation of the resource, should be employed where feasible when projects will have significant adverse impact upon heritage resources.

- ▲ **Policy R-RC 86:** Projects in areas found to have heritage resources shall be conditioned and designed to avoid loss or degradation of the resources. Where conflict with the resource is unavoidable, mitigation measures that offset the impact may be imposed.
- ▲ **Policy R-RC 88:** For projects receiving environmental assessment, expert opinions and field reconnaissance may be required if needed at the applicant's expense to determine the presence, extent, and condition of suspected heritage resources and the likely impact of the project upon the resources.

4.2.4 Analysis, Impacts, and Mitigation

ANALYSIS METHODOLOGY

The impact analysis considers documented cultural resources within the project site, the potential for discovery of previously undocumented resources, including as of yet undiscovered components of the built environment, historic and prehistoric archaeological resources, and human remains. The analysis is also informed by federal, state, and local laws and regulations that apply to cultural resources.

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, the project would result in a potentially significant impact on cultural resources if it would:

- ▲ cause a substantial adverse change in the significance of an historical resource as defined in Section 15064.5;
- ▲ cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5;
- ▲ disturb any human remains, including those interred outside of formal cemeteries;
- ▲ directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- ▲ cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or
 - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Terminology

For purposes of discussion throughout the following impacts and mitigation measures, the term "historic resources" describes extant buildings and structures as well as subsurface historic-era features (such as wells, privies, or foundations). Prehistoric resources refer to Native American sites, features, or burials.

Issues or Potential Impacts Not Discussed Further

The Initial Study concluded that the potential impacts to Tribal Cultural Resources would be less than significant. Please refer to the Initial Study, included as Appendix A of this Draft EIR, for more details regarding these impact evaluations.

IMPACTS AND MITIGATION MEASURES

Impact 4.2-1: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Although unlikely, construction and excavation activities associated with project development could unearth previously undiscovered unique paleontological resources, if they are present. This impact is **potentially significant**. Implementation of the mitigation measure below would reduce impacts associated with the discovery of unknown paleontological resources to a **less-than-significant** level.

There are no unique geologic resources located on the project site. The project site is mapped as Quaternary age (Pleistocene epoch) alluvium, lake, playa, and terrace deposits, which consists of marine and nonmarine rocks (2.5 million to 11.7 thousand years old) and is bordered to the south by a portion of Mesozoic age (Jurassic/Cretaceous epoch) Franciscan Complex (199 million to 65 million years old). A search of the UCMP database revealed that no paleontological resources have been recorded in Quaternary alluvium in Santa Clara County, and nine Jurassic/Cretaceous microfossils have been recorded in the Franciscan Complex in Santa Clara County. However, the UCMP database did not list any paleontological sites of any kind on or near the project site (UCMP 2017).

Construction activities would include removal of existing trees, site preparation (e.g., excavation, grading, and vegetation clearing), trail construction, structure erection, and new parking areas. Given that the project site is located adjacent to a geologic unit that, in other areas of the county, has contained fossils, there is a potential to discover unknown paleontological resources during construction. This would be a **potentially significant** impact.

Mitigation Measure 4.2-1. Avoidance or treatment of uncovered paleontological resources.

The project proponent shall retain a qualified paleontologist to provide a preconstruction briefing to the supervisory personnel of the excavation contractor to alert them to the possibility of exposing significant paleontological resources within the property. In the event that paleontological resources are discovered during project construction, construction shall halt in the immediate vicinity of the find until a qualified paleontologist is consulted to determine the significance of the find, and has recommended appropriate measures to protect the resource. Further disturbance of the resource shall not be allowed until those recommendations are approved by the County Planning Office and the recommendations for protection of the resource have been implemented.

Significance after Mitigation

Implementation of this mitigation measure would reduce impacts associated with the discovery of unknown paleontological resources to a **less-than-significant** level because it requires work to stop in case of a find and evaluation and appropriate treatment of a find by a qualified paleontologist.

Impact 4.2-2: Cause a substantial adverse change in the significance of an archaeological resource.

Although unlikely, construction and excavation activities associated with project development could unearth previously undiscovered archaeological resources, if they are present. This impact is **potentially significant**. Implementation of the mitigation measures below would reduce impacts associated with the discovery of historic or archaeological resources to a **less-than-significant** level.

As previously discussed above, there are no historic buildings or structures in the project area, as identified by the *Santa Clara County Heritage Resource Inventory*. Archival research revealed that no previously recorded historic archaeological sites are located within or adjacent to the project site. Site reconnaissance found a small historic rock quarry on the hillside above Llagas Creek; however, it is located well outside the area proposed for construction. No additional cultural materials, prehistoric or historic, were noted within the project site. Nonetheless, the Office of Historic Preservation has determined that the project site has the potential to contain unrecorded archaeological sites. During construction, ground disturbing activities and excavation have the potential to uncover unknown archaeological resources or human remains. Resources could also be encountered during excavations associated with operation of the cemetery. This is a **potentially significant** impact.

Mitigation Measure 4.2-2a. Notification and training regarding potential archaeological resources.

The applicant shall note on any plans that relate to ground-disturbance that there is a potential for exposing unknown, buried cultural resources. The project proponent shall retain a Professional Archaeologist to provide a preconstruction briefing to the supervisory personnel of the excavation contractor to alert them to the possibility of exposing significant historical and archaeological resources within the property. The briefing shall describe the types of archaeological objects that could be exposed, the need to stop excavation at the discovery, and the procedures to follow regarding discovery protection and notification of the project proponent and archaeologist. If archaeological materials are exposed or discovered during subsurface construction activities on the site, then the operator of the cemetery shall receive a similar briefing as the construction personnel.

Mitigation Measure 4.2-2b. Treatment of buried cultural resources.

In the event that archaeological materials are exposed or discovered during subsurface activities, activities within 50 feet of the find shall stop, and a Professional Archaeologist who meets the Secretary of the Interior's standards shall be contacted for evaluation and further recommendations. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) under CEQA and/or unique archaeological resources. If the Professional Archaeologist determines that any cultural resources constitute a significant archaeological resource, he/she shall notify the project proponent and the County Planning Office of the evaluation and recommended mitigation measures to mitigate any impact to a less-than-significant level. If a discovery is determined to be a significant archaeological resource, and if avoidance of the resource is not possible, the Professional Archaeologist shall prepare and assist in the implementation of a Cultural Resources Management Plan, which must be reviewed and approved of by the Santa Clara County Planning Office, for appropriate treatment of the resource. Potential recommendations could include evaluation, collection, recordation, and analysis of any significant archaeological materials. Treatment of any significant archaeological resources shall be undertaken in accordance with the Cultural Resources Management Plan and approved by the Professional Archaeologist.

Mitigation Measure 4.2-2c. Treatment of human remains.

If human remains are discovered during construction, CEQA Guidelines 15064.5(e)(1) shall be followed, which is as follows:

In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

- 1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - a) The Santa Clara County coroner must be contacted to determine that no investigation of the cause of death is required; and
 - b) If the coroner determines the remains to be Native American:

1. The coroner shall contact the Native American Heritage Commission within 24 hours;
2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American;
3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98; or

2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

- a) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the Commission;
- b) The descendant identified fails to make a recommendation; or
- c) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Significance after Mitigation

Implementation of these mitigation measures would reduce impacts associated with the discovery of archaeological resources or human remains to a **less-than-significant** level because it requires halting of construction in the event of a find and avoidance or appropriate treatment of any significant resources or human remains uncovered in a manner that is professionally accepted and legally compliant.

CUMULATIVE IMPACTS

Impact 4.2-3: Contribution to cumulative loss of unique paleontological or geological resources.

Less-than-considerable contribution after mitigation. Mitigation Measure 4.2-1 is identified above to minimize the individual project impact on paleontological resources a less-than-significant level. The project's contribution, after implementation of mitigation, to a cumulative impact on paleontological resources would be **less than considerable**.

Paleontological resources are important because they contribute to humans' understanding of prehistoric life within a locality, a broader region, and the earth in general. Therefore, the cumulative context for paleontological resources may vary based on the specific resource types associated with the geologic formations within the region. As discussed above under Impact 4.2-1 the Quaternary soils underlying the project site are unlikely to contain paleontological resources, but the marine sedimentary and metasedimentary rocks of the Franciscan Complex, located immediately south of the project site, have a higher potential to contain paleontological resources. There are nine records of microfossils located within the Franciscan Complex in Santa Clara County (UCMP 2017). Although the project site would not likely contain paleontological resources, because it is close to a geologic formation that has a higher likelihood to contain fossils (and because soil maps do not perfectly reflect the location of soil types), Mitigation Measure 4.2-1 is identified to minimize potential impacts to paleontological resources to a less-than-significant level. The mitigated project would not individually cause a significant impact to paleontological resources and would not combine in a considerable way with other projects in the region (as shown in Table 4-1 at the beginning of Chapter 4 of this Draft EIR), which would also typically require similar mitigation, to result in a cumulative

impact on these resources. Therefore, the proposed project's contribution to a cumulative impact to paleontological or geological resources would be **less than considerable**.

Impact 4.2-4: Contribution to cumulative impacts on archaeological resources.

Less-than-considerable contribution after mitigation. Implementation of mitigation measures minimize the individual project impacts to archaeological resources to a less-than-significant level. Because the project's individual impacts are not significant and because other development in the region would typically be required to implement similar avoidance and minimization measures, the project's contribution to this cumulative impact would be **less than considerable**.

The cumulative context for the cultural resources analysis considers a broad regional system of which the resources are a part. Because all significant archaeological resources are unique and nonrenewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. The loss of any one archaeological site affects all others in a region because these resources are best understood in the context of the entirety of the cultural system of which they are a part. The boundaries of an archaeologically important site extend beyond the site boundaries. As a result, a meaningful approach to preserving and managing cultural resources must focus on the likely distribution of cultural resources, rather than on project or parcel boundaries. The cultural system is represented archaeologically by the total inventory of all sites and other cultural remains in the region. The proposed project, in combination with other development in the region, could cause a substantial adverse change in the significance of unique archaeological resources.

As discussed above under Impacts 4.2-2, the project-specific impact analysis, no known archaeological/historic resources or human remains exist on the project site. Implementation of Mitigation Measures 4.2-2a and b, would reduce potentially significant impacts to currently undiscovered archaeological resources because actions would be taken to avoid, move, record, or otherwise treat the resource appropriately, in accordance with pertinent laws and regulations. It is also understood that other projects within the region would be required to implement similar measures. Implementation of these mitigation measures would minimize the project's potential to adversely affect local archaeological resources and would therefore also minimize the project's incremental contribution to a cumulative impact, and the project's contribution is less than considerable.

Although no evidence suggests that any prehistoric or historic-era marked or un-marked human interments are present within or in the immediate vicinity of the project site, there is a potential for these resources to become unearthed during construction activities. Therefore, it is conservatively assumed that the proposed project, in combination with other development in the Ohlone territory could contribute to the loss of significant cultural resources, which include ancestral remains. Implementation of Mitigation Measure 4.2-3 would reduce the project's contribution to this cumulative impact to a **less-than-considerable** level.

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4.3 BIOLOGICAL RESOURCES

4.3.1 Introduction

This section addresses the biological resources known or with potential to occur in the project vicinity and describes potential effects of project implementation on those resources. Biological resources include common vegetation and habitat types, sensitive plant communities, and special-status plant and animal species. The analysis includes a description of the existing environmental conditions, the methods used for assessment, the potential direct and indirect impacts of project implementation, and mitigation measures recommended to address impacts determined to be significant or potentially significant. The data reviewed in preparation of this analysis included:

- ▲ records search and map query of the California Natural Diversity Database (CNDDDB 2017);
- ▲ Calflora online database of plants in California (Calflora 2017);
- ▲ California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2017);
- ▲ eBird online database of bird observations (eBird 2017);
- ▲ reconnaissance-level survey of project site on May 24, 2017; and
- ▲ Final Santa Clara Valley Habitat Plan, August 2012.

4.3.2 Environmental Setting

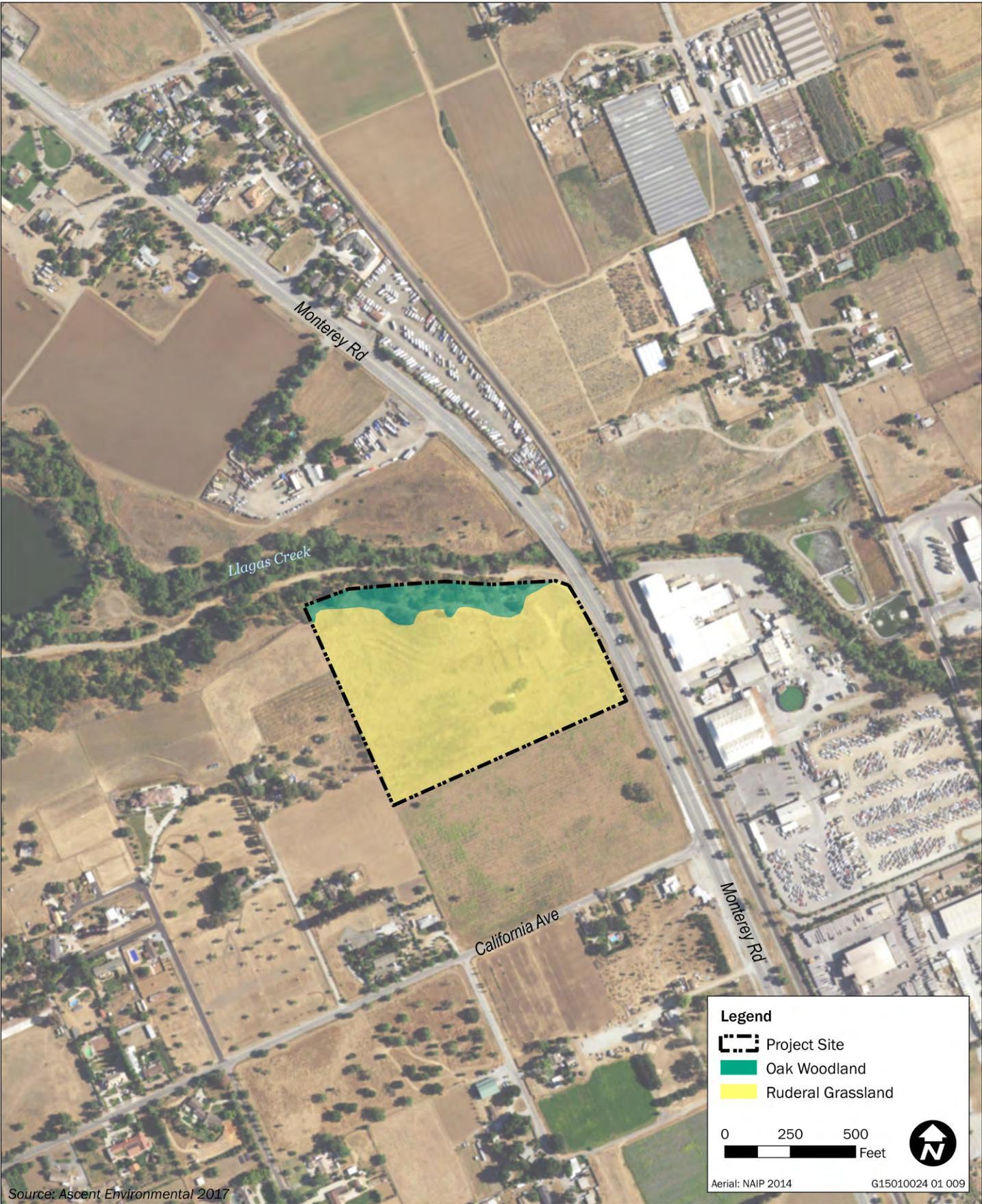
The proposed project site is located within unincorporated Santa Clara County near the community of San Martin. The northern portion of the site contains a hill and low ridgeline with a maximum elevation of approximately 390 feet. Llagas Creek and an area of riparian habitat is located on the north site of the hill. Llagas Creek and the associated riparian habitat are outside of the project boundary, and there is no additional aquatic (e.g., wetlands, creeks) or riparian habitat within the project site. The eastern and southern boundaries of the project site are adjacent to rural residential areas and open fields. The northwestern boundary of the project site is adjacent to Monterey Road. An industrial area is located to the west of the project site, across Monterey Road.

TERRESTRIAL COMMUNITIES

Ruderal Grassland

The project site contains mostly overgrown ruderal vegetation (Exhibit 4.3-1), including nonnative grasses, such as wild oats (*Avena* sp.) and canarygrass (*Phalaris* sp.), as well as nonnative thistle species such as Italian thistle (*Carduus pycnocephalus*) and yellow starthistle (*Centaurea solstitialis*). Other nonnative forb species observed on the project site included mustard (*Brassica* sp.), white stemmed filaree (*Erodium brachycarpum*), purple salsify (*Tragopogon porrifolius*), field bindweed (*Convolvulus arvensis*), narrow leaved plantain (*Plantago lanceolata*), field hedge parsley (*Torilis arvensis*), curly dock (*Rumex crispus*), chicory (*Cichorium intybus*), and white horehound (*Marrubium vulgare*). Grasses and other vegetation within the relatively flat portion of the project site were up to 3 feet tall, while some areas were shorter because of trampling by vehicles or animals. Vegetation within the sloped northern portion of the project site, which has an elevational gain of approximately 80 feet, was shorter and less overgrown.

Evidence of burrowing mammals was observed throughout the ruderal grassland habitat. Most burrows observed were attributed to pocket gophers (*Thomomys bottae*); however, there were several larger burrows likely attributed to California ground squirrels (*Otospermophilus beecheyi*). Ground squirrels were otherwise not observed during the May 24 survey. None of the ground squirrel burrows observed within the project site



Source: Ascent Environmental 2017

Exhibit 4.3-1

Habitat Map



appeared to be large enough to host a burrowing owl (*Athene cunicularia*), and no signs of use by burrowing owls were observed (e.g., no bones, feathers, or whitewash). No protocol-level surveys for burrowing owl were conducted. Additionally, mule deer (*Odocoileus hemionus*) and coyote (*Canis latrans*) scat was observed within the ruderal grassland area, and a live vole (*Microtus* sp.) was observed.

Isolated Trees and Oak Woodland

A large nonnative blue gum tree (*Eucalyptus globulus*) and a native valley oak tree are present in the center of the project site, while all other trees are located within the upland northern portion of the project site (Exhibit 4.3-1). Native tree and shrub species within the upland woodland portion of the project site include valley oak (*Quercus lobata*), coast live oak (*Q. agrifolia*), blue oak (*Q. douglasii*), California buckeye (*Aesculus californica*), and blue elderberry (*Sambucus nigra* ssp. *caerulea*). The woodland understory contains some native forbs, including elegant clarkia (*Clarkia unguiculata*) and common gumplant (*Grindelia camporum*).

Several common bird species, including California scrub jay (*Aphelocoma californica*), acorn woodpecker (*Melanerpes formicivorus*), and European starling (*Sturnus vulgaris*) were observed within the isolated trees during the survey. A large, inactive nest was observed within the blue gum tree, and a pellet was observed on the ground below the nest. The pellet contained a gopher skull. The nest and pellet indicate that a raptor (e.g., hawk or owl) was recently nesting or roosting within the blue gum tree. A protocol-level nesting bird survey was not conducted.

SENSITIVE BIOLOGICAL RESOURCES

Special-Status Species

Special-status species are plants and animals that are legally protected under California Endangered Species Act (CESA) (Fish and Game Code, Section 2050 et seq.), federal Endangered Species Act (ESA), or other regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing. For this EIR, special-status species are defined as:

- ▲ species listed or proposed for listing as threatened or endangered under the ESA (50 Code Fed. Regs., Section 17.12) for listed plants, (50 Code Fed. Regs., Section 17.11) for listed animals, and various notices in the Federal Register for proposed species;
- ▲ species that are candidates for possible future listing as threatened or endangered under the ESA (75 Code Fed. Regs., Section 69222);
- ▲ species that are listed or proposed for listing by the State of California as threatened or endangered under the CESA of 1984 (14 Cal. Code Regs., Section 670.5);
- ▲ plants considered by California Department of Fish and Wildlife (CDFW) and CNPS to be “rare, threatened, or endangered in California” (Rare Plant Ranks 1A, 1B, 2A, and 2B; CNPS 2017);
- ▲ species that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA) Guidelines, Section 15380;
- ▲ animals fully protected in California (Fish and Game Code, Section 3511 for birds, Section 4700 for mammals, and Section 5050 for reptiles and amphibians); or
- ▲ animal species of special concern to CDFW.

Special-Status Wildlife

Table 4.3-1 provides a list of the special-status wildlife species that have been documented on the project site or the CNDDDB five-mile search area, and describes their regulatory status, habitat, and potential for occurrence in the project site. A total of three special-status wildlife species have potential to occur within

the project site (Table 4.3-1). These species include burrowing owl, northern harrier (*Circus cyaneus*), and white-tailed kite (*Elanus leucurus*).

Table 4.3-1 Special Status Wildlife Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Listing Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
Amphibians and Reptiles				
California red-legged frog <i>Rana draytonii</i>	FT	SSC	Aquatic, artificial flowing waters, artificial standing waters, freshwater marsh, marsh & swamp, riparian forest, riparian scrub, riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, south coast flowing waters. Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Not expected to occur. All known occurrences are approximately 2-4 miles from the project site, associated with Llagas Creek to the south, Coyote Lake to the east, and the Institute Golf Course to the northeast. While California red-legged frog could occur within Llagas Creek and the pond along Llagas Creek adjacent to the project site, this highly aquatic species rarely strays from streamside habitat. The project site is separated from this potentially suitable habitat by a road (Atherton Way), and a wooded hill that has a maximum elevation of approximately 400 feet. Because there is no suitable habitat within the project site, it is unlikely that California red-legged frogs would leave this potentially suitable habitat to enter the project site.
California tiger salamander <i>Ambystoma californiense</i>	FT	ST	Cismontane woodland, meadow and seep, riparian woodland, valley and foothill grassland, vernal pool, and wetlands. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not expected to occur. The nearest known occurrences of this species are about 1 mile southwest of the project site within suitable oak savanna habitat. The project site is disturbed, and is surrounded by agricultural, residential, and industrial properties, and roads. Connectivity to suitable habitat is insufficient, and it is unlikely that this species would occur in the project site.
western pond turtle <i>Actinemys marmorata</i>		SSC	Aquatic, artificial flowing waters, Klamath/north coast flowing waters, Klamath/north coast standing waters, marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters. A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.3 miles from water for egg-laying.	Not expected to occur. The nearest known occurrence is approximately 5 miles east of the project site at Coyote Creek. Western pond turtle could occur within Llagas Creek and the pond along Llagas Creek adjacent to the project site. However, there is no suitable aquatic habitat within the project site. It is unlikely that Western pond turtle would leave potentially suitable habitat within Llagas Creek to enter the project site.
Birds				
burrowing owl <i>Athene cunicularia</i>		SSC	Coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley and foothill grassland. 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.	May occur in some areas on site. The nearest known occurrence is approximately 3.8 miles south of the project site. The project site grassland is overgrown and is generally too tall to provide optimal habitat for this species. However, some areas of the site along the southern boundary and the northern hillside may contain suitable habitat.
northern harrier <i>Circus cyaneus</i>		SSC	Coastal scrub, Great Basin grassland, marsh and swamp, riparian scrub, valley and foothill grassland, and wetlands. Coastal salt and fresh-water marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Likely to occur. Suitable nesting habitat for northern harrier is present adjacent to the project site, and the species could forage within the project site. The species has been observed recently within approximately 1 mile of the project site (eBird 2017).

Table 4.3-1 Special Status Wildlife Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Listing Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
white-tailed kite <i>Elanus leucurus</i>		FP	Cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, and wetlands. Rolling foothills and valley margins with scattered oaks and 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.	Likely to occur. Suitable nesting habitat is present within the woodland area along Llagas Creek adjacent to the project site. White-tailed kite could forage within the project site, and the species has been observed within approximately 1 mile of the project site (eBird 2017).
Fish				
steelhead - south-central California coast DPS <i>Oncorhynchus mykiss irideus</i>	FT		Aquatic, Sacramento/San Joaquin flowing waters, South coast flowing waters. Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.	Not expected to occur. There is no suitable aquatic habitat within the project site.
Invertebrates				
Bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	FT		Coastal dunes, ultramafic, valley and foothill grassland. Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. California plantain (<i>Plantago erecta</i>) is the primary host plant; <i>Castilleja densiflora</i> and <i>C. exserta</i> are the secondary host plants.	Not expected to occur. While there are occurrences of this species within 5 miles of the project site, and occurrences of its host plant (California plantain) within 1 mile of the project site, this species requires serpentine grasslands to breed, and there is no serpentine soil within the project site.
Mammals				
American badger <i>Taxidea taxus</i>		SSC	Alkali marsh, alkali playa, alpine, alpine dwarf scrub, bog a fen, brackish marsh, broadleaved upland forest, chaparral, chenopod scrub, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal dunes, coastal prairie. Most abundant in drier open stages of moist shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not expected to occur. Optimal habitat is not present within the project site. Suitable habitat for American badger includes grassland, which is present within the project site. However, there are several significant barriers that disrupt the connectivity of the grassland habitat in the area, including developed rural residential areas, agricultural land, and roads. The closest known occurrence is approximately 4.6 miles south of the project site.

Note: CNDDDB = California Natural Diversity Database

¹ Legal Status Definitions

Federal:

- E Endangered (legally protected)
- T Threatened (legally protected)
- D Delisted
- PT Proposed Threatened

State:

- D Delisted
- FP Fully protected (legally protected)
- SC Species of special concern (no formal protection other than CEQA consideration)
- E Endangered (legally protected)
- T Threatened (legally protected)
- CT Candidate Threatened

² Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present in the project area due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available in the project area; however, there are little to no other indicators that the species might be present.

Likely to occur: The species, or evidence of its presence, was observed in the project area during reconnaissance surveys, or was reported by others.

Source: CNDDDB 2017; eBird 2017

Special-Status Plants

Table 4.3-2 provides a list of the special-status plant species that have been documented on the project site or the CNDDDB five-mile search area and describes their regulatory status, habitat, and potential for occurrence in the project site. A total of four special-status plant species have potential to occur within the project site (Table 4.3-2). These species include big-scale balsamroot (*Balsamorhiza macrolepis*), fragrant fritillary (*Fritillaria liliacea*), woodland woollythreads (*Monolopia gracilens*), and most beautiful jewelflower (*Streptanthus albidus* ssp. *peromoenus*).

Table 4.3-2 Special Status Plant Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Listing Status ¹			Habitat	Potential for Occurrence ²
	Federal	State	CRPR		
big-scale balsamroot <i>Balsamorhiza macrolepis</i>			1B.2	Ultramafic. Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 115 to 4,806 feet in elevation. Blooms March-June.	May occur. The project site contains potentially suitable grassland habitat. The nearest known historic (1901, California 2017) occurrence is less than 1 mile south of the project site, and the nearest current occurrence is approximately 4 miles to the west of the project site near Coyote Lake.
Coyote ceanothus <i>Ceanothus ferrisiae</i>	FE		1B.1	Ultramafic. Chaparral, valley and foothill grassland, coastal scrub. Serpentine sites in the Mt. Hamilton range. 492 to 1,509 feet in elevation. Blooms January-May.	Not expected to occur. The project site does not contain serpentine soil, and is located below the elevation requirements for this species. The nearest occurrences are approximately 4 miles north of the project site near Anderson Lake.
Santa Clara Valley dudleya <i>Dudleya abramsii</i> ssp. <i>setchellii</i>	FE		1B.1	Ultramafic. Valley and foothill grassland, cismontane woodland. On rocky serpentine outcrops and on rocks within grassland or woodland. 197 to 1,493 feet in elevation. Blooms April-October.	Not expected to occur. The project site does not contain any rocky serpentine outcrops. The nearest recent occurrence of this species is approximately 4 miles southeast of the project site
Hoover's button-celery <i>Eryngium aristulatum</i> var. <i>hooveri</i>			1B.1	Vernal pools, wetland. Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. 3 to 164 feet in elevation. Blooms June-August.	Not expected to occur. There is no suitable vernal pool habitat, or other wetland habitat within the project site. The nearest known occurrence of this species is 4.6 miles southwest of the project site
fragrant fritillary <i>Fritillaria liliacea</i>			1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentine; various soils reported though usually on clay, in grassland. 10 to 1,312 feet in elevation. Blooms February-April.	May occur. Potentially suitable grassland habitat is present within the project site. The nearest known occurrence of this species is approximately 4 miles north of the project site near Anderson Lake.
smooth lessingia <i>Lessingia micradenia</i> var. <i>glabrata</i>			1B.2	Ultramafic. Chaparral, cismontane woodland. Serpentine; often on roadsides. 394 to 1,378 feet in elevation. Blooms May-November.	Not expected to occur. The project site does not contain suitable chaparral or woodland habitat, nor does it contain serpentine soil. The nearest known occurrence is approximately 1.8 miles southwest of the project site.
arcuate bush-mallow <i>Malacothamnus arcuatus</i>			1B.2	Chaparral, cismontane woodland. Gravelly alluvium. 3 to 2,411 feet in elevation. Blooms April-September.	Not expected to occur. The project site does not contain suitable chaparral or woodland habitat. The nearest known occurrence is approximately 5 miles southwest of the project site.

Table 4.3-2 Special Status Plant Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Listing Status ¹			Habitat	Potential for Occurrence ²
	Federal	State	CRPR		
woodland woollythreads <i>Monolopia gracilens</i>			1B.2	Ultramafic. Chaparral, valley and foothill grassland, cismontane woodland, broadleaved upland forest, north coast coniferous forest. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns but may have only weak affinity to serpentine. 328 to 3,937 feet in elevation. Blooms February-July.	May occur. The project site contains potentially suitable grassland habitat. The nearest known occurrence is less than 1 mile southeast of the project site.
most beautiful jewelflower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>			1B.2	Ultramafic. Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops, on ridges and slopes. 312 to 3,281 feet in elevation. Blooms March-October.	May occur. The project site contains potentially suitable grassland habitat. The nearest known occurrence is approximately 1.5 miles southwest of the project site.

Notes: USFWS = CRPR = California Rare Plant Rank; CNDDDB = California Natural Diversity Database

¹ Legal Status Definitions

Federal:	California Rare Plant Ranks:
E Endangered (legally protected by ESA)	1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
T Threatened (legally protected by ESA)	
State:	2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
E Endangered (legally protected by CESA)	
R Rare (legally protected by CNPPA)	Threat Ranks
	0.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
	0.2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

² Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present on the project site due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available at the project site; however, there are little to no other indicators that the species might be present.

Likely to occur: The species, or evidence of its presence, was observed at the project site during reconnaissance surveys, or was reported by others.

Sources: CNDDDB 2017; Calflora 2017

Sensitive Natural Communities

Sensitive natural communities are of special concern to resource agencies or are afforded specific consideration through CEQA or other federal or State laws. Sensitive natural communities may be of special concern to regulatory agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species. Many of these communities are tracked in CDFW’s CNDDDB. One sensitive natural community has been found within five miles of the project site, so its potential to occupy the site has been investigated.

Serpentine Bunchgrass

Serpentine bunchgrass grassland is associated with serpentine soils and native bunchgrass species, such as Serpentine reed grass (*Calamagrostis ophitidis*), blue wildrye (*Elymus glaucus*), blue fescue (*Festuca idahoensis*), June grass (*Koeleria macrantha*), Torrey melic (*Melica torreyana*), Pine bluegrass (*Poa secunda*), big squirreltail grass (*Elymus multisetus*), and purple needle grass (*Stipa pulchra*). There are several occurrences of serpentine bunchgrass within a 5-mile radius of the project site. The nearest occurrence is approximately 4.4 miles northwest of the project site within the foothills of the Santa Cruz Mountains. There are no serpentine soils on the project site.

4.3.3 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Pursuant to the ESA (16 U.S.C. Section 1531 et seq.), the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) regulate the taking of species listed in the ESA as threatened or endangered. In general, persons subject to ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private property, and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of state law. Under Section 9 of the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take.

Two sections of the ESA address take. Section 10 regulates take if a non-federal agency is the lead agency for an action that results in take and no other federal agencies are involved in permitting the action. However, if a project would result in take of a federally-listed species and federal discretionary action (even if a non-federal agency is the overall lead agency) is involved (i.e., a federal agency must issue a permit), the involved federal agency consults with USFWS under Section 7 of the ESA. Section 7 of the ESA outlines procedures for federal interagency cooperation to protect and conserve federally listed species and designated critical habitat. Section 7(a)(2) requires federal agencies to consult with USFWS and NMFS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.

Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it shall be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." A take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13 (50 CFR 10.13). The list includes nearly all birds native to the United States.

Clean Water Act

Section 404 of the Clean Water Act (CWA) requires project proponents to obtain a permit from the U.S. Army Corps of Engineers (USACE) before performing any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters of the United States, interstate waters, tidally influenced waters, and all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Many surface waters and wetlands in California meet the criteria for waters of the United States.

In accordance with Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate regional water quality control board indicating that the action would uphold state water quality standards.

STATE

California Endangered Species Act

Pursuant to the CESA, a permit from CDFW is required for projects that could result in the "take" of a plant or animal species that is listed by the state as threatened or endangered. Under CESA, "take" is defined as an

activity that would directly or indirectly kill an individual of a species, but does not include “harm” or “harass,” as does the federal definition. As a result, the threshold for take is higher under CESA than under the federal ESA. Authorization for take of state-listed species can be obtained through a California Fish and Game Code Section 2081 incidental take permit.

California Fish and Game Code Sections 3503 and 3503.5—Protection of Bird Nests and Raptors

Section 3503 of the Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders *Falconiformes* and *Strigiformes*), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs and/or young.

Fully Protected Species under the California Fish and Game Code

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take.

Protection for Bird Nests and Raptors

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, and falcons), including their nests or eggs. Section 3513 of the California Fish and Game Code codifies the federal MBTA.

LOCAL

Santa Clara County General Plan

Book B, Resource Conservation, Rural Unincorporated Area Issues and Policies

Riparian and Freshwater Habitats

- ▲ **Resource Conservation Policy – R-RC 31:** Natural streams, riparian areas, and freshwater marshes shall be left in their natural state providing for percolation and water quality, fisheries, wildlife habitat, aesthetic relief, and educational or recreational uses that are environmentally compatible. Streams which may still provide spawning areas for anadromous fish species should be protected from pollution and development impacts which would degrade the quality of the stream environment.
- ▲ **Resource Conservation Policy – R-RC 32:** Riparian and freshwater habitats shall be protected through the following general means: a. setback of development from the top of the bank; b. regulation of tree and vegetation removal; c. reducing or eliminating use of herbicides, pesticides, and fertilizers by public agencies; d. control and design of grading, road construction, and bridges to minimize environmental impacts and avoid alteration of the streambed and stream banks (freeway bridges and arch culverts, for example); and e. protection of endemic, native vegetation.
- ▲ **Resource Conservation Policy – R-RC 33:** Public projects shall be designed to avoid damage to freshwater and stream environments.
- ▲ **Resource Conservation Policy – R-RC 36:** In cluster residential developments or other projects where open space dedication is required, the stream, riparian areas, and freshwater marshes should be included within the restricted open space area of the project or protected by other enforceable mechanisms, such as deed restrictions or conservation easements.

- ▲ **Resource Conservation Policy – R-RC 37:** Lands near creeks, streams, and freshwater marshes shall be considered to be in a protected buffer area, consisting of the following: 1. 150 feet from the top bank on both sides where the creek or stream is predominantly in its natural state; 2. 100 feet from the top bank on both sides of the waterway where the creek or stream has had major alterations; and 3. In the case that neither (1) nor (2) are applicable, an area sufficient to protect the stream environment from adverse impacts of adjacent development, including impacts upon habitat, from sedimentation, biochemical, thermal and aesthetic impacts.
- ▲ **Resource Conservation Policy – R-RC 38:** Within the aforementioned buffer areas, the following restrictions and requirements shall apply to public projects, residential subdivisions, and other private non-residential development: a. No building, structure or parking lots are allowed, exceptions being those minor structures required as part of flood control projects. b. No despoiling or polluting actions shall be allowed, including grubbing, clearing, unrestricted grazing, tree cutting, grading, or debris or organic waste disposal, except for actions such as those necessary for fire suppression, maintenance of flood control channels, or removal of dead or diseased vegetation, so long as it will not adversely impact habitat value. c. Endangered plant and animal species shall be protected within the area.

County of Santa Clara Ordinance Code, Division C16 – Tree Preservation and Removal

The County requires that an Administrative Permit or Tree Removal Permit be obtained for removal of any protected tree on any private or public property in designated areas (Design Review and Historic districts, smaller hillside properties) of the County. A protected tree is defined as any tree having a trunk that measures 37.7 inches or more in circumference (12 inches in diameter) at a height of 4.5 feet above the ground or immediately below the lowest branch, whichever is lower, or in the case of multi-trunk trees, a trunk size of 75.4 inches in circumference or more (24 inches or more in diameter). Mitigation is required in order to preserve and protect trees in areas that are graded and/or where construction activities are proposed within the canopy of a tree or trees. Trees greater than 24 inches or more in diameter removed as a result of a development project would be subject to the tree removal ordinance.

Santa Clara Valley Habitat Plan

The Santa Clara Valley Habitat Plan (VHP), a joint Habitat Conservation Plan/Natural Community Conservation Plan, was pursued by six local partners (the Santa Clara Valley Water District, the County of Santa Clara, the Santa Clara Valley Transportation Authority, and the cities of San Jose, Gilroy, and Morgan Hill) and two resource agencies (CDFW and USFWS). The VHP is “intended to provide an effective framework to protect, enhance, and restore natural resources in specific areas of Santa Clara County, while improving and streamlining the environmental permitting process for impacts on threatened and endangered species” (Santa Clara Valley Habitat Agency 2012). The final VHP was approved and adopted by the six local partners in 2013.

4.3.4 Environmental Impacts and Mitigation Measures

ANALYSIS METHODOLOGY

The analysis of potential impacts to biological resources resulting from project implementation is based on the data review, and review of existing reports regarding natural resources in the project site described previously in Section 4.3.2, “Environmental Setting.”

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, an impact to terrestrial biological resources is considered significant if implementation of the project would do any of the following:

- ▲ have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;

- ▲ have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS;
- ▲ have a substantial adverse effect on federally protected waters of the United States, including wetlands, as defined by Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means;
- ▲ interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- ▲ conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- ▲ conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan; or
- ▲ substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

Issues or Potential Impacts Not Discussed Further

Riparian Habitat and Sensitive Natural Communities

The Initial Study (IS), included as Appendix A, evaluated potential impacts to riparian habitat and sensitive natural communities. As discussed in the IS, while riparian habitat is present north of the project site along Llagas Creek, none of this habitat is located within the project site and it would not be subject to indirect effects (e.g., project site drainage) because it is on the opposite side of the ridgeline crest from the proposed project. Additionally, although serpentine bunchgrass habitat is present within 5 miles of the project site, suitable serpentine habitat for this sensitive natural community is not present within the project site. No impacts to these habitats would occur. These impacts will not be evaluated further in this Draft EIR.

Wetlands, Waters of the United States, and Waters of the State

As discussed in the IS (Appendix A), the project site does not contain any aquatic features. Llagas Creek and Atherton Way Hidden Pond are located adjacent to the project site; however, they are located on the opposite side of a low ridgeline, protected from site activity, and project construction plans do not include any actions that would affect these aquatic features. The IS concluded that this impact is less than significant. This impact will not be evaluated further in this Draft EIR.

Wildlife Movement Corridors or Nursery Sites

The IS (Appendix A) concluded that the potential for an impact to wildlife movement would be less than significant. The nearest potential wildlife corridor is Llagas Creek, which is adjacent to the project site on the opposite side of a low ridgeline from project features. It has been established that project construction activities would not result in any impacts to Llagas Creek or the riparian habitat associated with the creek. The proposed project would, therefore, not diminish or alter the creek's role as a wildlife movement corridor. Otherwise, the project site is currently surrounded by developed rural residential and agricultural land to the west and south, as well as industrial properties and large roads to the east. The area is currently fragmented, and not a functioning wildlife corridor, and project construction activities would not significantly change the existing conditions. Effects on nursery sites of those species with potential to occur on the project site are evaluated below.

Local Policies and Ordinances

As discussed in the IS (Appendix A), the project is consistent with County's General Plan policies to protect riparian and freshwater habitats. The County's General Plan Policy Resource Conservation Recommendation

37 requires a 150-foot setback from the top bank of creeks to protect waterways and water quality, and to avoid adverse impacts of adjacent development such as sedimentation, biochemical, thermal, and aesthetic impacts. Llagas Creek is located approximately 150 feet from the camp and retreat site, 400 feet from the nearest proposed building pad area of the cemetery grounds, 250 feet from the proposed building pad area for the prayer hall and multipurpose hall, 420 feet from the proposed septic system, and 480 feet from the proposed parking lot. The setback distance of these structures from Llagas Creek are sufficient to maintain compliance with the County's General Plan recommendations. Consistency with General Plan policies will not be evaluated further in this Draft EIR. However, because the project includes proposed tree removal, compliance with Ordinance Code, Division C16 – Tree Preservation and Removal, is addressed below.

Habitat Conservation Plans

As discussed in the IS (Appendix A), the project site is within the Permit Area for the VHP, which identifies the property as rural residential land that is not covered by the plan. Because the project site is classified under the VHP as Rural Development Not Covered, it is not subject to its conservation provisions and, therefore, the project would not conflict with the conservation objectives identified in the VHP. The IS concluded that there would be no impact and no further evaluation is presented in this Draft EIR.

IMPACTS AND MITIGATION MEASURES

The project has the potential to have a substantial adverse effect, either directly or through habitat modification, on wildlife or plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. The following discussion addresses impacts to special status wildlife and plants and their habitats separately.

Impact 4.3-1: Disturbance to or loss of special-status wildlife species and habitat.

Project implementation includes conversion of grassland habitat, removal of trees, and ground disturbance associated with construction of new buildings and roads. These activities could result in the disturbance or direct loss of special-status wildlife for which the site supports suitable habitats for nesting or roosting. The loss of special-status wildlife species and their habitat would be a **potentially significant** impact. With mitigation, impacts would be **less than significant**.

A total of three special-status wildlife species have potential to occur within the project site, including burrowing owl, northern harrier, and white-tailed kite (Table 4.3-1).

Nesting Raptors

The project site contains suitable nesting habitat for raptors within the large isolated trees in the center of the project site, within the oak woodland habitat along the northern boundary of the project site, and within the grassland habitat on the project site (for northern harrier specifically). Special-status raptors with potential to occur within the project site include northern harrier (a CDFW species of special concern) and white-tailed kite (fully protected under California Fish and Game code). A large nest was observed within the blue gum tree on the project site that was associated with an unknown raptor (because of presence of pellets beneath the nest).

Project implementation would include removal of the isolated trees on the project site and conversion of grassland habitat, which could disturb nesting raptors if they are present, potentially resulting in nest abandonment, nest failure, or mortality of chicks or eggs. Additionally, operation of construction equipment and presence of construction crews could result in increased noise and visual disturbance to nesting raptors. The potential loss of or disturbance to raptors and their nests would be a **potentially significant** impact.

Mitigation Measure 4.3-1a: Nesting raptor preconstruction survey and establishment of protective buffers.

The applicant shall implement the following measures to reduce impacts on nesting raptors:

- ▲ To minimize the potential for loss of nesting raptors, tree removal activities will only occur during the nonbreeding season (September 1-January 31). If all suitable nesting habitat is removed during the nonbreeding season, no further mitigation will be required.
- ▲ Prior to removal of any trees or other vegetation, or ground disturbing activities between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nesting raptors, and shall identify active nests within 500 feet of the site. The surveys will be conducted before the beginning of any construction activities between February 1 and August 31. A report of the completed survey shall be provided to the County Planning Office.
- ▲ Impacts to nesting raptors shall be avoided by establishing appropriate buffers around active nest sites identified during preconstruction raptor surveys. Activity shall not commence within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. CDFW guidelines recommend implementation of a 500-foot buffer for raptors, but the size of the buffer may be adjusted if a qualified biologist and the applicant, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to adversely affect the nest.
- ▲ Trees shall not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree during the breeding season in which the tree removal would occur.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-1a would reduce significant impacts on nesting raptors to a **less-than-significant** level because active raptor nests would be avoided and protected from construction activities.

Burrowing Owl

While burrowing owls, or signs of burrowing owl activity (e.g., bones, feathers, or whitewash), were not observed within the project site during the May 2017 site visit, some evidence of burrowing mammal activity was observed and portions of the project site support suitable habitat. The overgrown vegetation within the project site does not provide optimal habitat for burrowing owls; however potentially suitable habitat may be present along the southern edge of the project site (adjacent to the open field), and within the northern upland portion of the project site.

Project implementation would include conversion of grassland habitat and ground disturbance activities associated with construction of new buildings and roads, which could result in disturbance to nesting burrowing owls or destruction their burrows if they are present, potentially resulting in nest abandonment, nest failure, or mortality of chicks or eggs. Additionally, operation of construction equipment and presence of construction crews could result in increased noise and visual disturbance to nesting burrowing owls. The potential loss of or disturbance to burrowing owls or their burrows would be a **potentially significant** impact.

Mitigation Measure 4.3-1b: Burrowing Owl Survey and Consultation.

The applicant shall implement the following measures to reduce impacts on burrowing owl:

- ▲ The applicant shall retain a qualified biologist to conduct focused surveys for burrowing owls in areas of suitable habitat within 500 feet of the project site. Surveys shall be conducted prior to the start of construction activities and in accordance with Appendix D of CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). A report of the completed survey shall be provided to the County Planning Office.

- ▲ If no occupied burrows are found, a letter report documenting the survey methods and results shall be submitted to CDFW and no further mitigation will be required.
- ▲ If a burrow occupied by a burrowing owl is found, the project applicant shall consult with CDFW regarding protection buffers to be established around the occupied burrow and maintained throughout construction. Recommended buffers range from 150 to 1,500 feet depending on the project site conditions and burrowing owl use of the burrow. Exclusion of burrowing owls from any occupied burrows is not expected to be necessary because the staging areas may be adjusted to minimize disturbance. Exclusion of burrowing owls during the breeding season (February 1 through August 31) will be prohibited.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-1b would reduce significant impacts to a **less-than-significant** level because burrowing owls and their burrows would be avoided and protected from construction activities.

Impact 4.3-2: Disturbance to or loss of special-status plant species and habitat.

Project implementation includes conversion of grassland habitat, removal of trees, and ground disturbance associated with construction of new buildings and roads. These activities could result in the disturbance or direct loss of special-status plants, because of direct removal or trampling. The loss of special-status plant species and their habitat would be a **potentially significant** impact. However, with mitigation requiring avoidance or compensation, this impact would be **less than significant**.

Four special-status plant species have potential to occur within the project site, including big-scale balsamroot, fragrant fritillary, woodland woollythreads, and most beautiful jewelflower. While none of these species were observed during the May 2017 site visit, potentially suitable grassland habitat is present within the project site. Project implementation, including conversion of suitable grassland habitat and ground disturbance associated with construction of new buildings and roads, could result in the direct loss of these plant species. The loss of special-status plants and their habitat can substantially affect the abundance, distribution, and viability of local and regional populations of these species. This would be a **potentially significant** impact.

Mitigation Measure 4.3-2: Identify and avoid special-status plant species.

The applicant shall implement the following measures to reduce impacts on special-status plants:

- ▲ Prior to construction and during the blooming period for the special-status plant species with potential to occur in the project site, a qualified botanist shall conduct protocol-level surveys for special-status plants in areas where potentially suitable habitat would be removed or disturbed by project activities. A report of the completed survey shall be provided to the Santa Clara County Planning Division. Table 4.3-3 summarizes the normal blooming periods (shown in gray) for special-status plant species with potential to occur on the project site, which generally indicates the optimal survey periods when the species are most identifiable.
- ▲ If no special-status plants are found, the botanist shall document the findings in a letter report to USFWS, CDFW, and the project applicant, and no further mitigation will be required.
- ▲ If special-status plant species are identified, the applicant shall hire a qualified botanist to prepare an impact avoidance plan. The plan shall include mapping of special-status plants within the project site and shall identify sufficient buffers to avoid impacts to the plants and root systems. Buffer areas shall be identified with high-visibility construction fencing, flagging, or other appropriate methods.

Table 4.3-3 Normal Blooming Period for Special-Status Plants with Potential to Occur on the Project Site

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
big-scale balsamroot <i>Balsamorhiza macrolepis</i>											
fragrant fritillary <i>Fritillaria liliacea</i>											
woodland woollythreads <i>Monolopia gracilens</i>											
most beautiful jewelflower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>											

Source: Data compiled by Ascent Environmental in 2017, Calflora 2017

- ▲ If special-status plant species are found that cannot be avoided during construction, the applicant shall consult with CDFW and/or USFWS, as appropriate depending on species status, to determine the appropriate protection measures to minimize direct and indirect impacts that could occur as a result of project construction and shall implement the agreed-upon measures to achieve no net loss of occupied habitat or individuals. Protection measures may include preserving and enhancing existing populations, creation of off-site populations on mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat and/or individuals. A monitoring plan shall be developed describing how unavoidable losses of special-status plants will be compensated.
- ▲ If relocation efforts are included in the protection measures, the measures shall specify the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements.
- ▲ Success criteria for preserved and compensatory populations shall include:

 - The extent of occupied area and plant density (number of plants per unit area) in compensatory populations will be equal to or greater than the affected occupied habitat.
 - Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when:

 - plants reestablish annually for a minimum of five years with no human intervention such as supplemental seeding; and
 - reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.
 - If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long term viable populations.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-2 would reduce impacts special-status plants to a **less-than-significant level** because it would require the project applicant to identify and avoid special-status plants or provide compensation for loss of special-status plants through enhancement of existing populations, creation and management of off-site populations, conservation easements, or other appropriate measures.

Impact 4.3-3: Compliance with Santa Clara County tree preservation and removal ordinance.

Project implementation includes removal of two trees within the project site that are protected under the Santa Clara County Tree Preservation and Removal ordinance, including one valley oak and one blue gum. Because the native oak tree was determined to be in fair-to-poor health and poor structure, and because the nonnative blue gum tree is a detrimental/undesirable species according to the ordinance, the removal of these two trees would be a **less-than-significant** impact.

There are two large trees located near the center of the site that are planned for removal, a eucalyptus (i.e., blue gum) and a valley oak. Both trees are protected under the Santa Clara County Municipal Code, Division C16-2 – Tree Preservation and Removal. The trees were assessed by an arborist in March of 2016. The eucalyptus was determined to be in fair health with fair structure, and the native valley oak was observed to be in fair-to-poor health with poor structure (Fouts 2016). The ordinance allows for removal of trees deemed by an arborist to be in poor health and considers nonnative blue gum trees as a “detrimental/undesirable” species. The landscape plan includes new plantings of sixteen native oak trees (four coast live oak or canyon live oak [*Q. chrysolepis*], nine interior live oak [*Q. wislizenii*], and three valley oaks), which would exceed the replacement requirements of Santa Clara County’s Guidelines for Tree Protection and Preservation for Land Use Applications. Native oaks would be planted west of the driveway leading to the caretaker residence, along the southwestern face of the community building, and east and west of the maintenance building. This impact is **less than significant**.

CUMULATIVE IMPACTS

Impact 4.3-4: Contribution to cumulative impacts on biological resources.

Less-than-considerable contribution. Implementation of mitigation measures minimize the individual project impacts to biological resources to a less-than-significant level. Because the project’s individual impacts are not significant and because other development in the region would typically be required to implement similar avoidance and minimization measures, the project’s contribution to this cumulative impact would be **less than considerable**.

The cumulative setting for biological resources includes the project site vicinity and adjacent migration and movement corridors, such as Llagas Creek and the Pacific flyway. While the area immediately surrounding the project site is rural, the project site is located in a region that is experiencing significant urbanization and population growth. This urbanization has led to fragmentation of suitable habitat for many special-status species in the region as grasslands, woodlands, and other habitats are converted to urban and agricultural uses. The effects of past and present projects on the environment are reflected by the existing conditions in the project area. A list of probable future projects is provided in Table 4-1 at the beginning of Chapter 4 of this Draft EIR. Overall, because of continuing development, there is an existing adverse cumulative effect on special-status wildlife and special-status plants in the region.

Project implementation could result in potentially significant impacts to special-status plants, burrowing owl, northern harrier, and white-tailed kite. However, these potential impacts would be mitigated to a less-than-significant level with implementation of the Mitigation Measures 4.3-1a, 4.3-1b, and 4.3-2. These mitigation measures would require pre-construction surveys for sensitive resources and protection or compensatory mitigation if sensitive resources are found to be present within the project site. Other development projects in the region would be required to implement similar measures. Implementation of these mitigation measures would minimize the project’s potential to adversely affect biological resources and would therefore also minimize the project’s incremental contribution to a cumulative impact. The project’s contribution is **less than considerable**.

4.4 HYDROLOGY AND WATER QUALITY

4.4.1 Introduction

The information and analyses contained in this section are based on two technical studies prepared by Questa Engineering Corporation in November 2017: the *Draft Wastewater Facilities Review for Cordoba Center Project, Santa Clara, California* and the *Cemetery Water Quality Impact Review for Cordoba Center Project, Santa Clara County, California*. The full technical studies are contained in Appendix F of this DEIR. This section describes the existing hydrologic conditions on the project site and in the surrounding area, presents a summary of pertinent laws and regulations, and assesses the project's potential impacts related to hydrology and water quality. Based on the Initial Study (Appendix A), the following analysis focuses on potential effects of project development and operations on surface hydrology and groundwater quality.

4.4.2 Environmental Setting

HYDROLOGY AND DRAINAGE

Regional Hydrology

The Santa Clara Valley is a flat alluvial plain situated between the Santa Cruz Mountains to the west and the southern Diablo Range to the east. The Santa Clara Valley Water District (SCVWD) has defined five principal watershed management areas in Santa Clara County: Lower Peninsula; West Valley; Guadalupe; Coyote; and Uvas-Llagas. The project site is located in the Uvas-Llagas Watershed, a 104-square-mile region that is distinguished by its agricultural lands and natural areas. Part of the larger Pájaro River Watershed, the creeks in this watershed are the only waterways in Santa Clara County that flow southward, draining to Monterey Bay (SCVWD 2017).

The region has a Mediterranean-type climate characterized by mild, wet winters and dry summers. The meteorological station nearest to the project site is in Morgan Hill. Average annual rainfall for the area is 21.7 inches, the majority of which falls between November and March. Average maximum daily temperatures range from a high of 87 degrees Fahrenheit in August to a low of 61 degrees Fahrenheit in December (Western Regional Climate Center 2016).

Site Hydrology and Drainage

The project site does not contain any creeks, ponds, or other water bodies. Llagas Creek is located on the parcel immediately north of the site and runs parallel to the site's northern boundary. Llagas Creek originates in the Santa Cruz Mountains from Mount Loma Prieta and flows southeasterly towards the lower agricultural plains of Santa Clara County. A 6,600-foot portion of Llagas Creek from below Lake Silveira to San Martin Avenue is perennial and continuously supported by releases from Chesbro Reservoir. The project site is adjacent to this portion of the Llagas Creek (SCVWD 2014a). The project site drains to the West Branch Llagas Creek, to the southwest of the project site (Sowers and Henkle 2008).

Flood Hazards

The project site is not located within a 100-year floodplain as defined on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FEMA 2009) and depicted in Exhibit 4.4-1. Although Llagas Creek is located on the parcel immediately north of the site, because of topography, including the ridge next to the creek on the north end of the project site, the site is not subject to creek flooding.

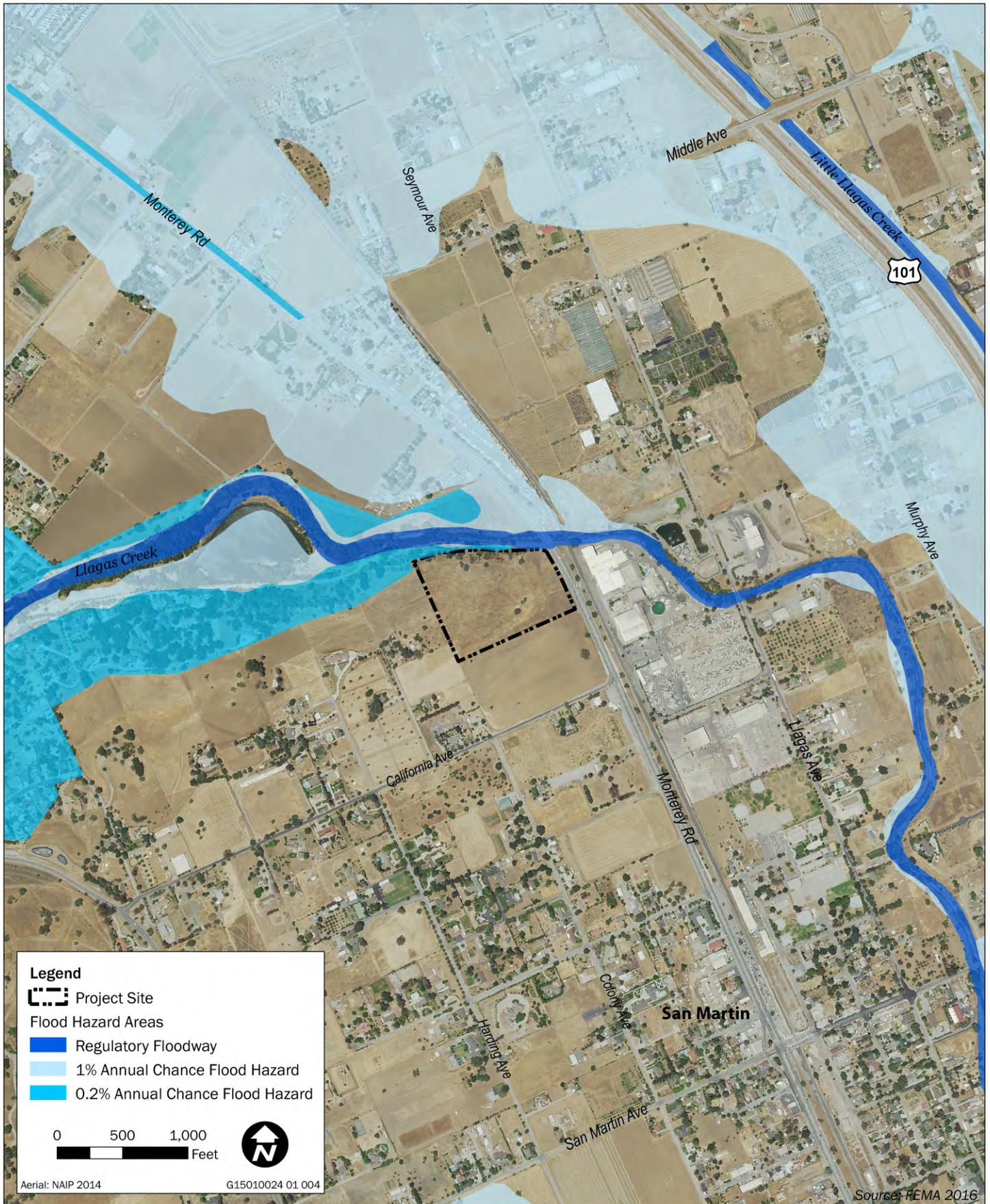


Exhibit 4.4-1

Flood Hazards



Dams and Levees

Within Santa Clara County, there are ten reservoirs with dams owned by the SCVWD that are potentially subject to dam failure, which could result from overtopping because of heavy rains or from a major seismic event. The project site is within the inundation zone of the Chesbro Dam. As disclosed in the *Santa Clara County General Plan Draft EIR* (1994), much of the Santa Clara Valley, including the project site, would be subject to flooding in the event of a dam failure. Based on investigation into the seismic stability of the major dams maintained by SCVWD, modifications, redesign, construction to prevent overtopping, and enlargement of spillways has been completed to maximize safety in a seismic event.

SITE GEOLOGY AND SOILS

The northern portion of the property is characterized by an east-west trending bedrock ridge, which slopes steeply down to Llagas Creek north of the site. The south side of the ridge consists of a gently-inclined hillslope and level alluvial terrain. The bedrock ridge is underlain by Franciscan Greenstone, with colluvium on the southerly flanks, and older alluvium on the level alluvial terrace forming the eastern and southern sides of the property (Questa 2017a).

Between 2006 and 2015, various soil investigations and numerous percolation tests were conducted in several different areas of the site. These tests identified: (1) sandy clay loamy soils with moderate to slow percolation rates (41 to 109 minutes per inch) on the south-facing hillslopes in the center of the site, with stiff sandy clay subsoils in some areas; and (2) gravelly and sandy loam soils with moderate to fast percolation rates in the alluvial area along the eastern side of the site (Questa 2017b).

GROUNDWATER

Regional Groundwater

The project site is located in the Llagas Subbasin (Basin Number 3-3.01, as defined by the California Department of Water Resources [DWR]), which is within the California Coast Ranges physiographic province between the San Andreas and Calaveras Fault zones. The subbasin is part of the larger Gilroy-Hollister Valley Groundwater Basin (Basin 3-3) that extends into San Benito County to the south (SCVWD 2016). The 87-square-mile Llagas Subbasin occupies a northwest trending structural depression. The Diablo Range bounds it on the east and the Santa Cruz Mountains form the basin boundary on the west. The subbasin extends from the groundwater divide at Cochran Road near the town of Morgan Hill in the north to the Pájaro River in the south. The dominant geohydrologic feature is an inland valley that is drained to the south by tributaries of the Pájaro River, including Uvas and Llagas creeks. Groundwater in this subbasin generally occurs under unconfined conditions.

Groundwater levels vary seasonally and from year-to-year depending on precipitation patterns, with typical water table depths in the range of about 15 to 30 feet below the ground surface. (During their 2017 investigation, Questa did not identify groundwater shallower than 18 feet.) The SCVWD Annual Groundwater Report for calendar year 2015 indicates that groundwater flow in the portion of the Llagas Subbasin that includes the project site is generally in a southerly direction, with an average gradient of about 0.4 percent. The groundwater is used extensively for domestic, agricultural, and industrial water uses, providing 95 percent of the water supply for the cities of Gilroy and Morgan Hill, the unincorporated community of San Martin, and rural residential and other uses in the area (Questa 2017a).

Recharge to the Llagas Subbasin occurs from a variety of sources: natural recharge from streams, principally Uvas and Llagas Creeks; percolation of precipitation and surplus irrigation waters; seepage along canals; subsurface inflow; and artificial recharge. The amount of water recharged to the groundwater basin varies widely from year to year, dependent on the amount of precipitation. A number of artificial recharge facilities enhance natural recharge to the Llagas Subbasin, including the Madrone Channel, Main Avenue Percolation Ponds, and a number of percolation ponds along Uvas and Llagas Creeks (DWR 2004).

Site Groundwater

Groundwater on the project site occurs in the older alluvium along the southern and eastern sides of the property and in fractured bedrock in some places. On April 25, 2017 Questa completed several exploratory boreholes for direct observation of groundwater levels on the site, focusing particularly on the proposed cemetery area. Exhibit 4.4-2 shows the geologic map and borehole locations. The results are presented in Table 4.4-1, including the location of the groundwater measurements, geologic materials where water was encountered, depth to water, and water-table elevation. Also included is the water-level reading taken at an existing (inactive) irrigation well in the southeast corner of the project site. Depth to groundwater recorded during this survey ranged from 18 to 26 feet.

Table 4.4-1 On-Site Groundwater Measurements, April 2017

Designation	Location ¹	Soil-Geologic Materials ²	Ground Surface Elevation (feet, amsl)	Depth to Groundwater (feet, bgs)	Water Table Elevation (feet, amsl)
GW-1	Cemetery – mid	Franciscan Bedrock	316	24.7	291.3
GW-2	Cemetery – lower	Franciscan Bedrock	302	25.8	276.2
GW-3	Cemetery – mid	Franciscan Bedrock	316	18.0	298.0
GW-4	Cemetery – upper	Colluvium	338	Dry to 15.0 ³	N/A
A-1	Wastewater disposal field	Colluvium	328	Dry to 8.0 ³	N/A
A-2	Play area	Colluvium	314	Dry to 8.0 ³	N/A
Existing Inactive Well	Southeast corner	Older Alluvium	304	23.2	280.8

Notes: amsl = above mean sea level, bgs = below ground surface

¹ According to project site plan;

² Materials where water observation made

³ Depth of borehole

Source: Questa 2017a

Most of the neighboring rural residential properties rely on groundwater wells for individual water supplies. The nearest existing water wells are about 300 to 600 feet from the southwestern boundary of the project site (Questa 2017a).

WATER QUALITY

The following technical terms and concepts are referenced in this section:

- ▲ **Assimilative capacity:** the capacity of groundwater in the basin to absorb water quality changes due to percolating wastewaters or other land use activities without harmful effects to consumers.
- ▲ **Total dissolved solids:** a general indicator of the salinity of water and a prime indicator of the suitability of water for use. Except for distilled water, all water contains dissolved solids, which include various salts and minerals such as calcium, chloride, magnesium, potassium and sodium. Domestic wastes can increase the concentration of total dissolved solids (TDS) in wastewater.
- ▲ **Water quality baseline:** water quality values for specific contaminants reflecting preservation of existing conditions, assuming normal or reasonable control of point sources of pollution.

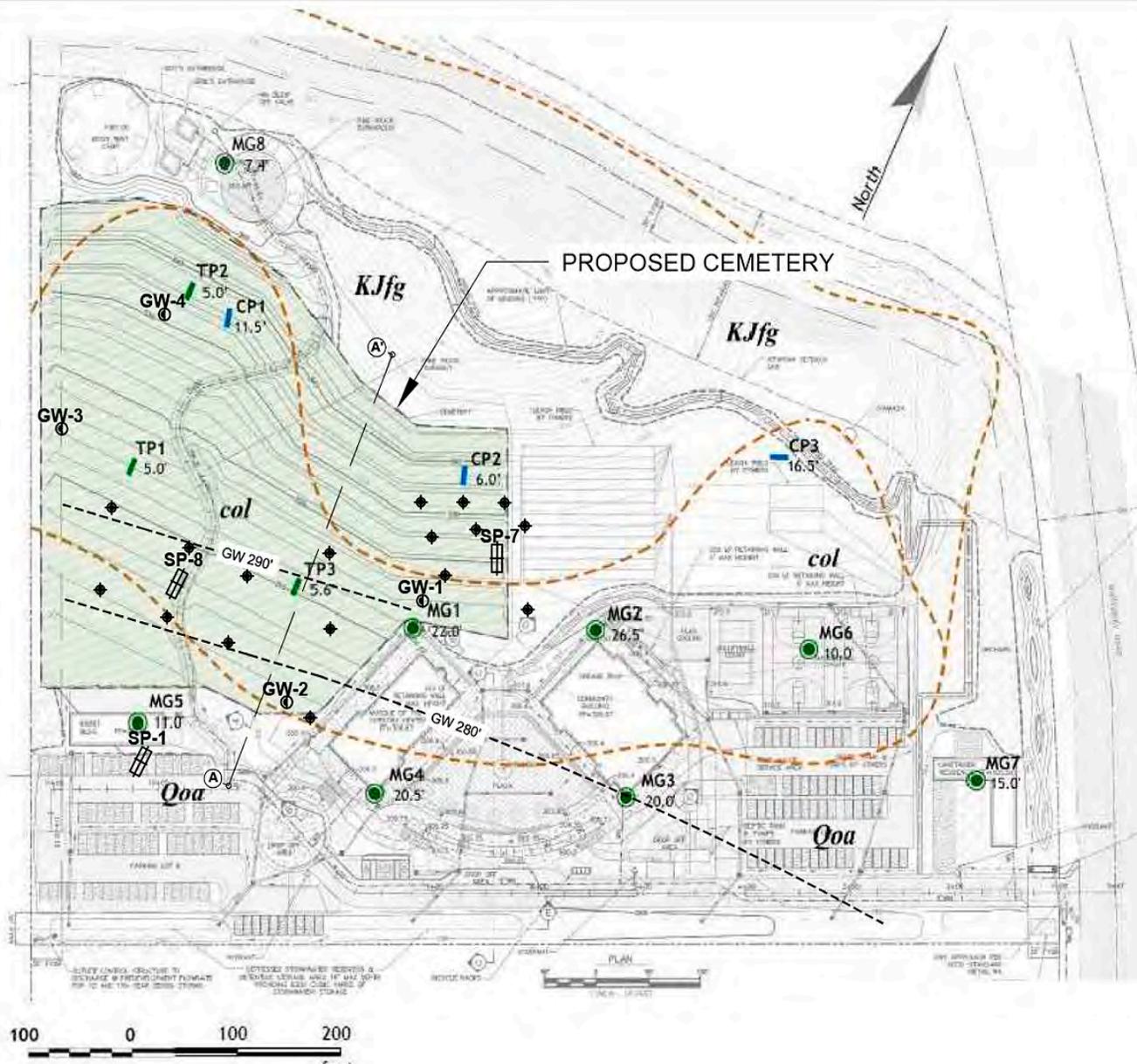
ADDITIONAL LEGEND

-  APPROXIMATE LOCATION OF BATZ EXPLORATORY TEST PITS
-  APPROXIMATE LOCATION OF BATZ AND HARTSELL PERCOLATION TESTS
-  APPROXIMATE LOCATION OF QUESTA EXPLORATORY BOREHOLES
-  INTERPOLATED GROUNDWATER CONTOUR LINE (APRIL-25-2017)

EXPLANATION

-  **MG1** Approximate location and depth of Milstone Geotechnical of exploratory borehole.
-  **TP1** 5.0' Approximate location and depth of Milstone Geotechnical exploratory test pit.
-  **CP1** 11.5' Approximate location and depth of Steven Connelly exploratory test pit.
-  Geologic contact (Connelly)
-  Proposed cemetery
- KJfg** Franciscan Assemblage greenstone
- Qoa** Quaternary Age older alluvium
- col** Colluvium

NOTES: Base map modified from November 2014 Preliminary Grading Plan for New Cordoba Center prepared by R.I.Engineering, Inc. Locations of exploratory boreholes and test pits were determined by tape and compass methods and are accurate only to the degree implied by this technique. This figure is not intended to be used for construction purposes.



Source: Produced by Questa Engineering Corp, 2017

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Exhibit 4.4-2

Geologic Map and Test Locations



Surface Water Quality

Section 303(d) of the federal Clean Water Act (CWA) requires the identification of water bodies that do not meet water quality standards or are considered impaired (see Section 4.4.3, “Regulatory Setting,” below, for a more detailed discussion of the Section 303(d) process). The Central Coast Regional Water Quality Control Board (RWQCB) has listed Llagas Creek (below Chesbro Reservoir) as an impaired water body in accordance with CWA Section 303(d) because of chloride, chlorpyrifos, electrical conductivity, *e. coli*, fecal coliform, low dissolved oxygen, nutrients, sedimentation/siltation, sodium, total dissolved solids (TDS), and turbidity (State Water Resources Control Board [SWRCB] 2012).

Groundwater Quality

The Central Coast RWQCB has established a groundwater-nitrogen-concentration objective of 5 milligrams of nitrogen per liter (mg-N/L) for the Llagas Subbasin (Central Coast RWQCB 2016). The drinking water standard for nitrate is 10 mg-N/L. The Final Salt and Nutrient Management Plan for the Llagas Groundwater Subbasin (SCVWD 2014b) presents extensive analysis of groundwater nitrate concentrations, sources, fate, and transport of nitrogen in the project area. A principal purpose of the subbasin plan is to estimate the assimilative capacity of the groundwater basin relative to nitrate and salt (measured as TDS) concentrations. This information is used by the Central Coast RWQCB to guide management of various activities that affect groundwater quality.

With respect to nitrate concentrations, the assimilative capacity is defined as the difference between the median water quality baseline (MWQB) of 5 mg-N/L and the maximum contaminant level (MCL), which is the drinking water standard of 10 mg-N/L. Preserving the MWQB is considered achievable through control of point sources of nitrogen (Questa 2017b). (For TDS, the MWQB is 300 mg/L and the maximum contaminant levels for drinking water purposes are 500 mg/L recommended and 1,000 mg/L upper limit.)

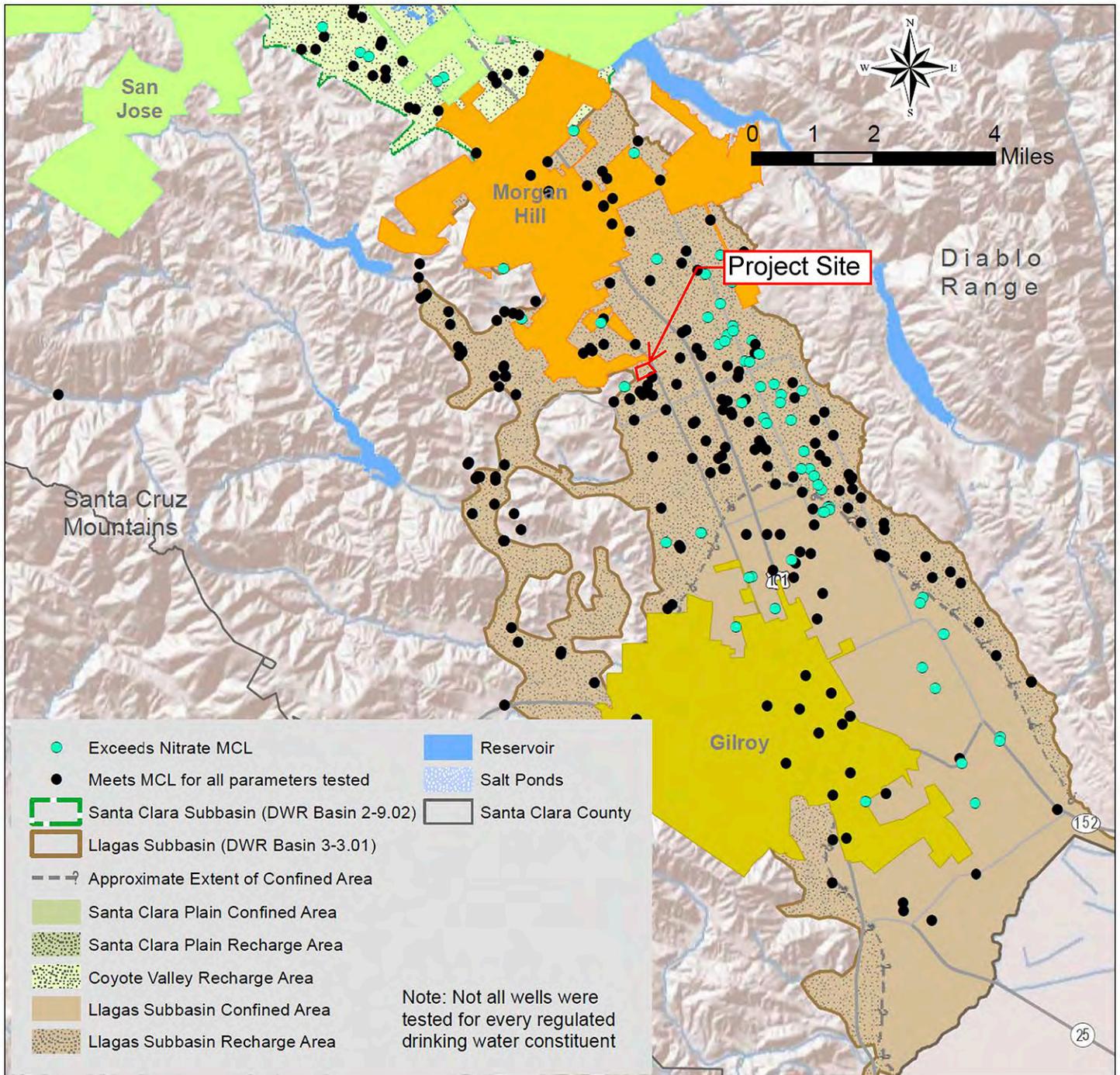
Under certain conditions, organic forms of nitrogen can convert to the water-soluble nitrate form and can be transported through the soil to the groundwater. Nitrate accumulation in groundwater is a critical concern in the San Martin area because of the substantial reliance on groundwater for water supplies. Historical agricultural practices and continuing use of septic systems, fertilizers, municipal wastewater systems, animal wastes, and other man-made and natural sources can lead to leaching of nitrogen into groundwater (SCVWD 2014b). Groundwater quality in the project area is considered good to excellent for domestic uses. As shown on Exhibit 4.4-3, with few exceptions, SCVWD well water monitoring data show nitrate and TDS concentrations compliant with drinking water standards and evidence of either stable conditions or a decreasing trend in nitrate and TDS levels over the past 15 years of monitoring (SCVWD 2016). Current SCVWD data show only one well, about 3,000 feet west of the project site, with reported nitrate concentrations in excess of the drinking water MCL of 10 mg-N/L. West San Martin Water Works, Inc., which would be the supplier of domestic water for the project, has reported TDS values of 290 to 340 mg/L, well under the drinking water recommended standards of 500 mg/L (Questa 2017b).

Water Quality Concerns Associated with On-Site Wastewater Disposal

Key water quality concerns associated with operation of on-site wastewater disposal systems (septic systems) include nitrate and TDS loading. Nitrate loading from on-site wastewater treatment and disposal systems can potentially degrade groundwater supplies and contribute to nutrient enrichment of surface water bodies, particularly in clustered or large-flow leachfield areas. Domestic wastes can also increase the concentration of TDS in the wastewater (as compared with the water supply) by about 200 mg/L (Questa 2017b).

Water Quality Factors Associated with Decomposition of Buried Remains

The basic elements and decomposition products from buried human remains are similar to materials found in domestic sewage, and many constituents are identical to those present in the natural environment. The potential effect on groundwater is not because of any specific toxicity they possess, but rather because of the potential for increasing the concentration of naturally occurring organic or inorganic substances to levels that would render the groundwater unfit for potable supplies or other uses (Questa 2017a).



Source: Santa Clara Valley Water District, Annual Groundwater Report, 2015.

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Exhibit 4.4-3

Water Supply Well Results: MCL Exceedances



The human body is composed of approximately 64 percent water, 20 percent protein, 10 percent fat, 1 percent carbohydrates, and 5 percent minerals. Decomposition involves various chemical and biological transformations affected by the condition of the cadaver and microbial activity in the grave, which is influenced by environmental factors such as temperature, precipitation, depth of burial, soil characteristics and oxygenation. The typical period for full decomposition at normal burial depths in well drained soils is estimated to be about 10 years. Decomposition in waterlogged or poorly drained soils may require up to 20 years or more. The primary end products of decomposition available for dispersal and leaching in the soil environment are inorganic compounds such as water, carbon dioxide and methane (gas), ammonia and ammonia compounds, nitrogen, phosphoric acid and hydrogen sulfide, as well as various inert substances (Questa 2017a).

Nitrogen comprises roughly 3 percent of the human body (by weight), occurring in many organic molecules, including amino acids that make up proteins and nucleic acids that make up DNA. Mineral salts comprise about 5 percent of the human body (by weight), which amounts to approximately 3,000 grams for an average adult. This includes measurable amounts of major minerals such as calcium, phosphorous, potassium, sulfur, sodium, magnesium and chloride, plus trace amounts of many other minerals such as iron, boron, iodine, manganese, and zinc. During decomposition of a buried corpse, these minerals become available for leaching into the soil and potentially reaching groundwater. Most minerals are highly soluble and not removed to any appreciable degree by passage through the soil, phosphorous being an exception. Minerals that are leached contribute eventually to an increase in the TDS concentration of groundwater. Human remains and decomposition products also contain a broad array of bacteria, pathogenic and others, as well as viruses. These include typical microorganisms known to be responsible for waterborne diseases, such as streptococci, bacillus, entero-bacteria such as Salmonella (Questa 2017a).

OTHER CONCERNS ASSOCIATED WITH ON-SITE WASTEWATER DISPOSAL

The suitability of a site for on-site wastewater disposal systems depends on a number of factors, including soil depth, percolation rate (time required for liquids to infiltrate through the soil), depth to groundwater, ground slope, horizontal setback requirements from domestic water wells, waterways, cut slopes and embankments, and property lines. Regulations regarding potential constraints for on-site wastewater disposal systems are described below under Santa Clara County Local Agency Management Program (LAMP).

4.4.3 Regulatory Setting

FEDERAL

Clean Water Act

The elements of the CWA that may be applicable to the implementation of the proposed project are discussed below.

CWA Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states must develop lists of water bodies that do not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the state develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of the pollutant that the water body can receive and still be in compliance with water quality objectives. The TMDL is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. The U.S. Environmental Protection Agency (EPA) must either approve a TMDL prepared by the state or disapprove the state's TMDL and issue its own. NPDES permit limits for listed pollutants must be consistent with the waste load allocation prescribed in the TMDL.

CWA Section 401 and 402 National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges, including point source municipal waste discharges and nonpoint source stormwater runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Two types of nonpoint source discharges are controlled by the NPDES program: discharges caused by general construction activities and the general quality of stormwater in municipal stormwater systems. In California, the RWQCBs are responsible for implementing the NPDES permit system.

National Flood Insurance Act

FEMA oversees floodplain management and runs the National Flood Insurance Program (NFIP) adopted under the National Flood Insurance Act of 1968. FEMA prepares Flood Insurance Rate Maps that delineate the regulatory floodplain to assist local governments with land use and floodplain management decisions to meet the requirements of the NFIP. In general, the NFIP mandates that development is not to proceed within the 100-year regulatory floodplain if the development is expected to increase flood elevation by 1 foot or more. Also, development is not allowed in designated 100-year floodways (i.e., flood flow channels).

Safe Drinking Water Act

As mandated by the Safe Drinking Water Act, passed in 1974, EPA regulates contaminants of concern to domestic water supply. Such contaminants are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated in the context of primary and secondary MCLs. EPA has delegated responsibility for California's drinking water program to the California Department of Health Services. California Department of Health Services is accountable to EPA for program implementation and for adoption of standards and regulations that are at least as stringent as those developed by EPA.

STATE

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established SWRCB and divided the state into nine regional basins, each with a RWQCB. The project site lies within the jurisdiction of the Central Coast RWQCB (Region 3). Porter-Cologne provides for development and periodic review of water quality control plans (basin plans), which designate beneficial uses and establish water quality objectives (standards) for surface waters and groundwater. Basin plans also include programs to achieve and maintain water quality objectives and provide the technical basis for establishment of waste discharge permit conditions and enforcement actions related to wastewater treatment facilities and a host of other activities that may affect water quality.

General Permit for Stormwater Discharges Associated with Construction Activity

SWRCB adopted the statewide NPDES General Construction Permit in August 1999. The state requires that projects disturbing more than 1 acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Construction Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm drainage systems and other waters. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management practices (BMPs) designed to prevent construction pollutants from contacting stormwater and to keep products of erosion from moving off-site into receiving waters throughout construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

California Water Code

The Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems was adopted by the SWRCB on June 19, 2012. This policy implements California Water

Code, Chapter 4.5, Division 7, Sections 13290-13291.7 by establishing statewide regulations and standards for permitting on-site wastewater systems. The on-site wastewater treatment system (OWTS) policy specifies criteria for existing and new on-site systems and establishes a conditional waiver of waste discharge requirements for systems that comply with the policy. The policy applies to all OWTS having design flows of 10,000 gallons per day (gpd) or less, and is to be incorporated into all RWQCB basin plans. Among other things, it permits and, to a large degree encourages, counties and other local agencies to regulate OWTS within their jurisdiction through the development of a LAMP, including standards, criteria and practices suited to local conditions.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014 (SGMA) became law on January 1, 2015, and applies to all groundwater basins in the state (Water Code Section 10720.3). By enacting SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1).

Pursuant to the SGMA, any local agency that has water supply, water management, or land use responsibilities within a groundwater basin may elect to be a “groundwater sustainability agency” for that basin (Water Code Section 10723). The Santa Clara Valley Water District is the GSA for Santa Clara County. The SGMA also requires DWR to categorize each groundwater basin in the state as high-, medium-, low-, or very low priority (Water Code Sections 10720.7, 10722.4). All basins designated as high- or medium-priority must be managed by a groundwater sustainability agency under a groundwater sustainability plan that complies with Water Code Section 10727 *et seq.* DWR has designated the Llagas Subbasin as a high priority basin.

Water Quality Regulatory Requirements for Cemeteries

State and Regional Water Boards

In California, and the U.S. in general, there are no special water quality requirements for cemeteries. While the SWRCB and RWQCBs have authority over virtually all matters that may affect water quality, these agencies have not developed any additional requirements, policies or permitting procedures for the development or operation of cemeteries.

The RWQCB’s involvement in the review of water quality issues for cemeteries is normally on a case-by-case basis, often as a commenting agency during the environmental review for new facilities. Grading activities and stormwater runoff associated with the development of the cemetery site, landscaping, and drainage facilities are commonly addressed during this process. Although there are no examples to point to where this has been done, the RWQCBs have the authority to require technical studies, monitoring, and potentially waste discharge permits for cemeteries in cases where it is determined that a cemetery poses a threat to water quality. The underlying basis and framework for RWQCB water quality management activities is provided through the development of Water Quality Control Plans (“Basin Plans”), which, among other things, designate beneficial uses and establish water quality objectives (standards) for surface waters and ground waters in their jurisdiction. As describe above, for the Llagas Groundwater Subbasin, the water quality objective for nitrate is 10 mg-N/L, the MCL for drinking water. The Central Coast RWQCB has also established 5 mg-N/L as the MWQB, which is the target level believed to be attainable through preservation of existing conditions and management of controllable sources of nitrogen. The difference between the MWQB objective and the MCL is considered the assimilative capacity of the groundwater basin (SCVWD 2014b).

The SWRCB Anti-Degradation Policy (68-16) requires the maintenance of existing levels of nitrates (5mg-N/L for nitrates) and other minerals within the Llagas Subbasin such that degradation of water quality is prohibited except where it is consistent with the maximum benefit to people of the State, will not unreasonably affect beneficial use of water, and will not result in water quality less than that prescribed in the basin plan.

LOCAL

Water Quality Control Plan for the Central Coast Basin

Central Coast RWQCB's basin plan (2016) identifies beneficial uses of surface waters and groundwater within the region and specifies water quality objectives to maintain the continued beneficial uses of these waters. The plan includes policies related to OWTS that are consistent with state requirements.

Santa Clara Valley Water District

SGMA lists the SCVWD as the exclusive groundwater management agency within its statutory boundary, which includes all of Santa Clara County. The district is also the groundwater sustainability agency for the Santa Clara and Llagas Subbasins.

Groundwater Management Plan

The 2016 Groundwater Management Plan (GWMP) builds upon the district's comprehensive 2012 GWMP. The 2016 GWMP updates technical basin information and acknowledges additional authorities provided by SGMA. Groundwater sustainability goals, strategies, programs, and outcome measures are largely unchanged. The 2016 GWMP meets the requirements of an alternative to a groundwater sustainability plan and meets the intent of SGMA.

Well Ordinance Program

The SCVWD Well Ordinance Program is responsible for issuing well permits and inspecting all well construction activities and well maintenance in Santa Clara County to help keep wells from endangering the public or threatening local groundwater resources. Under the Well Ordinance Program, SCVWD enforces violations against the District Well Ordinance and state well standards. These requirements help to ensure that groundwater usage does not result in adverse hydrologic and water quality effects.

Santa Clara County On-site Wastewater Treatment Systems Ordinance

Chapter IV, Onsite Wastewater Treatment, of the Santa Clara County Code of Ordinances establishes standards for the approval, installation, and operation of OWTS within Santa Clara County, consistent with the appropriate OWTS Ordinance standards and basin plans. The standards are adopted to prevent the creation of health hazards and nuisance conditions and to protect surface and groundwater quality. The ordinance applies to premises where there is proposed or exists a residence, place of business, or other building or place that people occupy, or where persons congregate, reside, or are employed; and where the maximum daily flow volume of waste produced is 10,000 gpd or less.

Santa Clara County Local Agency Management Program

The LAMP applies to all OWTS within Santa Clara County having wastewater design flows of up to 10,000 gpd, with the exception of those located on State and Federally-owned lands. Under the LAMP, authority for regulation of OWTS, including projects such as Cordoba Center, lies with the Santa Clara County Department of Environmental Health (DEH). County requirements for on-site wastewater systems are contained in Division B11 of the County Code, and in an accompanying Onsite Systems Manual, which provides policies, procedures and technical details related to permitting, design, construction and operation of on-site wastewater systems. The program includes requirements related to treatment, soil percolation, groundwater separation, ground slope, and setbacks.

Key regulatory requirements for on-site wastewater systems are summarized below:

Wastewater System Size. The County Ordinance Code (Section B11-60) applies to systems with design wastewater flows of up to 10,000 gallons per day (gpd). The RWQCB also is notified and provided information for any on-site wastewater system with flows of 2,500 gpd or greater for review and comment. Additionally, any system with flows over 2,500 gpd requires the issuance of a renewable operating permit.

Treatment. Treatment of sewage prior to subsurface disposal must, at a minimum, include primary treatment (i.e., sedimentation or settlement) as provided by a septic tank. Additional or “supplemental” treatment, such as sand filtration or a proprietary treatment system (e.g., aerobic treatment unit or filtration system), can be provided to overcome certain soils constraints, space limitations, steep slopes, shallow groundwater conditions, or effluent quality requirements.

Effluent Dispersal. The conventional method for effluent dispersal is a gravity-fed, gravel-filled disposal (leaching) trench, 18 to 36 inches wide and up to 8-feet deep. County code also allows for the use of several types of “alternative” dispersal system designs to overcome particular site constraints, in particular shallow soils and/or high groundwater conditions.

Soil Depth. Conventional disposal trenches require a minimum of 5 feet of soil below the trench bottom. For alternative systems, the minimum soil depth may be reduced to 2 or 3 feet, depending on the type of alternative design.

Soil Percolation. Soil percolation must be within the range of 1 to 120 minutes per inch (MPI) for conventional and alternative systems. The percolation rate is used for sizing the dispersal system and also affects the groundwater separation requirement (below).

Groundwater Separation. For conventional systems, the minimum depth to groundwater (below trench bottom) ranges from 5 to 20 feet, depending on the percolation rate. Percolation rates of 31 to 120 MPI are required for groundwater depths of 5 feet and percolation rates of 1 to 5 MPI for groundwater are required where groundwater is at 20 feet or greater. Soils with faster percolation rates require greater groundwater separation due to the potential for less absorption and treatment of effluent by the soil.

Ground Slope. Maximum ground slope in the disposal area for conventional disposal trenches is 30 percent. For slopes between 30 and 40 percent the use of a shallow pressure distribution trench system or subsurface drip dispersal is required. Slopes over 40 percent require the use of a subsurface drip dispersal system.

Setbacks. Minimum horizontal setbacks between septic tank and leachfield systems and various physical site features are listed in Code Section B11-67; some of the key minimum setback requirements include:

- ▲ Well (private, individual): 100 feet
- ▲ Public water well: 150 feet
- ▲ Watercourse: 100 feet
- ▲ Reservoir: 200 feet
- ▲ Drainage channel, swale: 50 feet
- ▲ Cuts or steep embankments: 4 times the height (minimum 25 feet, up to 100 feet)
- ▲ Property lines: 10 feet

Dual Leachfield Systems. The County requires the installation of dual disposal fields, each 100 percent of total required size, so that effluent can be alternated from one to another. This is for periodic resting and as a back-up in the event of failure, repair or maintenance needs.

Cumulative Impact Considerations. In addition to the above specifications, large flow on-site wastewater systems require evaluation of groundwater mounding hydraulics (i.e., water table rise), nitrate loading or other possible cumulative effects. Per County policy, the types of systems falling in this category are community-type systems serving several dwellings, commercial establishments or an entire community where the wastewater design flow exceeds 1,500 gpd, or where the system is located on a parcel smaller than 1 acre. This is part of the design analysis and is done to assure that site conditions (e.g., soil depth, groundwater depth, and percolation) are adequate for the proposed wastewater application rate. This analysis may dictate certain adjustment in the layout, sizing or wastewater flow to ensure that the soils are not overloaded with wastewater, and to prevent areawide water quality impacts extending beyond the property.

General Use of Dispersal Areas. Activities and construction in the disposal field area must be limited to those that will not interfere with the operation or maintenance of the subsurface trenches or piping. Roads, paved surfaces, buildings and fills of more than 12 inches deep may not be constructed over disposal fields since they may cause unnecessary soil compaction and restrict maintenance access to the system. Use of disposal field areas for playgrounds, parks, gardens, landscaping and open space is allowed, as these uses do not generally pose problems for subsurface drainfield operation.

Cemetery Water Quality Recommendations: Santa Clara County DEH does not have any public health or water quality requirements, policies, or authority for review and permitting of cemeteries. However, DEH administers the County's Local Agency Management Program for OWTS, which addresses subsurface dispersal of wastewater contaminants with similar soil suitability and groundwater protection issues as those posed by the leaching effects from cemeteries. Siting requirements for conventional on-site wastewater dispersal systems (leachfields) are particularly relevant as a point of reference in considering the potential effects and acceptable conditions for cemeteries, including the following:

- ▲ **Soil Depth.** Conventional disposal trenches require a minimum of 5 feet of soil below the trench bottom.
- ▲ **Groundwater Separation.** Minimum depth to groundwater (below trench bottom) ranges from 5 feet to 20 feet, depending on the percolation rate.
- ▲ **Setbacks.** Minimum horizontal setbacks between septic tank and leachfield systems and various physical site features would be the same as described above for on-site wastewater systems.

Santa Clara County Department of Environmental Health-Consumer Protection Division's Drinking Water Program

The County Drinking Water Program reviews all new well construction applications for domestic and agricultural uses prior to the submission to the SCVWD to ensure adequate separation from on-site sewage.

County of Santa Clara General Plan

The following policies in the Santa Clara County General Plan are applicable to the proposed project:

- ▲ **Policy R-RC 8:** The strategies for assuring water quantity and quality for the rural unincorporated areas shall include:
 1. Require adequate water quantity and quality as a pre-condition of development approval.
 2. Reduce the water quality impacts of rural land use and development.
 3. Develop comprehensive watershed management plans.
- ▲ **Policy R-RC 9:** Development in rural unincorporated areas shall be required to demonstrate adequate quantity and quality of water supply prior to receiving development approval.
- ▲ **Policy R-RC 10:** For lands designated as Resource Conservation Areas (Hillsides, Ranchlands, Agriculture, and Baylands) and for Rural Residential areas, water resources shall be protected by encouraging land uses compatible and consistent with maintenance of surface and ground water quality.
 1. Uses that pose a significant potential hazard to water quality should not be allowed unless the potential impacts can be adequately mitigated.
 2. The amounts of impervious surfaces in the immediate vicinity of water courses or reservoirs should be minimized.
- ▲ **Policy R-RC 11:** Areas with prime percolation capabilities shall be protected to the maximum extent possible, and placement of significant pollution sources within such areas shall be avoided.

- ▲ **Policy R-RC 12:** Excessive concentrations of septic systems shall be avoided, especially in areas vulnerable to groundwater contamination or in which normal functioning may be impaired by hydrologic constraints.
- ▲ **Policy R-RC 13:** Sedimentation and erosion shall be minimized through controls over development, including grading, quarrying, vegetation removal, road and bridge construction, and other uses which pose such a threat to water quality.
- ▲ **Policy R-RC 14:** Use and disposal of agricultural chemicals, such as fertilizers, pesticides and herbicides, shall be managed to minimize the threat of water pollution.
- ▲ **Policy R-RC 15:** Commercial and industrial uses such as automobile dismantlers, waste transfer disposal facilities, light industries, uses requiring septic systems, and other uses that have the greatest potential for pollution shall not be located within the vicinity of streams, reservoirs, or percolation facilities where contaminants could easily come in contact with flood waters, high groundwater, flowing streams, or reservoirs. Such uses shall be required to reduce any threat of contamination to an insignificant level as a condition of approval.

4.4.4 Environmental Impacts and Mitigation Measures

ANALYSIS METHODOLOGY

The impact analysis is largely based on reviews conducted by Questa Engineering Corporation in 2017 to evaluate potential effects on groundwater quality associated with operation of the proposed wastewater facilities and cemetery. Work performed for this review included:

- ▲ site inspection, test borings, and observation of soils and groundwater conditions on April 25, 2017;
- ▲ review and evaluation of the feasibility and regulatory compliance of proposed wastewater system plans, including plan layout and detail drawings, material/equipment specifications, and supporting design analysis and calculations;
- ▲ review and evaluation of the plans for the proposed cemetery relative to project site soil and groundwater conditions and conformance to recommended siting and operational guidelines; and
- ▲ analysis and estimation of potential impacts on groundwater quality within and near the project site because of pathogens, nitrate, and mineral salt (TDS) additions from the planned OWTS and cemetery burial practices.

Water-chemical mass balance analyses were completed to assess the potential contribution of nitrogen and TDS from the wastewater treatment facilities and the proposed cemetery to the subsurface environment and the resulting long-term effect on local groundwater quality. For the cemetery evaluation, the mass balance approach was modified to account for key differences between wastewater disposal operations and cemeteries, which include the following:

- ▲ A cemetery is more comparable to a landfill, involving the one-time introduction of a discrete amount of nitrogen and TDS with each burial plot, with burials occurring regularly, year-after-year over an extended period of time;
- ▲ Leaching of nitrogen and TDS from each grave site is driven only by seasonal rainfall percolation, without any assistance from a regular supply of percolating wastewater or other applied water flow; and
- ▲ Leaching of nitrogen from each grave site would occur over a finite amount of time related closely to the time required for decomposition of the interred body, which is typically on the order of about 10 years.

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, the project could have a significant adverse effect related to hydrology and water quality if it would:

- ▲ violate any water quality standards or waste discharge requirements;
- ▲ substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted);
- ▲ substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or offsite;
- ▲ substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the amount of surface runoff in a manner that would result in flooding on-site or off-site;
- ▲ create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- ▲ otherwise substantially degrade water quality;
- ▲ place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- ▲ place structures in a 100-year flood hazard area that would impede or redirect flood flows;
- ▲ expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or a dam; or
- ▲ result in substantial risk of inundation by seiche, tsunami, or mudflow.

Thresholds for Degradation of Groundwater Quality

This EIR applies the following specific thresholds to evaluate potential impacts to groundwater quality associated with the proposed OWTS and cemetery.

Specifically, the following analysis considers whether the proposed OWTS would:

- ▲ Conflict with County standards, including treatment and setback requirements, and cumulative analysis for groundwater mounding (see Section 4.4.3, “Regulatory Setting,” above).
- ▲ Cause the groundwater quality to exceed the County’s nitrate-nitrogen concentration guideline of 7.5 mg-N/L at the nearest location of an existing or potential domestic water supply well. (The County’s guideline of 7.5 mg-N/L protects water quality at existing and future wells against the exceedence of the 10 mg-N/L drinking water standard.)
- ▲ Cause any exceedence of groundwater nitrate-nitrogen concentration in the local groundwater basin above 5 mg-N/L, which is the Contra Costa RWQCB target for groundwater quality in the Llagas subbasin (cumulative impact analysis).

In addition, the analysis considers the following with respect to operation of the cemetery:

- ▲ Adequacy of soils to support a cemetery use.
- ▲ Potential contamination of groundwater with pathogens due to cemetery operation.
- ▲ Potential for excessive salt loading of the groundwater, such that the quality of water reaching nearby wells would be rendered unsuitable for domestic use.
- ▲ Potential exceedance of the County's nitrate-nitrogen concentration guideline of 7.5 mg-N/L at the nearest location of an existing or potential domestic supply well.
- ▲ Potential exceedance of groundwater nitrate-nitrogen concentration in the local groundwater basin above 5 mg-N/L, which is the the Central Coast RWQCB target for groundwater quality in the Llagas Subbasin (cumulative impact analysis).

Issues or Potential Impacts Not Discussed Further

The following potential impacts were evaluated in the Initial Study (IS; see Appendix A) and determined to result in either no impact or a less-than-significant impact. Therefore, additional analysis of these issue areas is not required.

Groundwater Supplies

An on-site well would be used for landscape irrigation. With the exception of the orchard, the project proposes to use drought-tolerant species that are either native to Santa Clara County or other areas of the world with Mediterranean climates. The project would comply with the County's Sustainable Landscape Ordinance, which requires that projects design, install, and maintain efficient irrigation systems, utilize low water-use plantings, and set a Maximum Applied Water Allowance, also known as an annual water budget.

Water for fire protection and potable purposes would be procured from the West San Martin Water Works, which supplies all of its water from three groundwater wells located in the Llagas Subbasin. As described further in Appendix A, the project's annual water demand for domestic use is estimated at 5 to 8 acre-feet, which would constitute a relatively small increase in demand (between 0.01 and 0.02 percent of total groundwater pumping in the subbasin). Therefore, impacts on groundwater supply will not be evaluated further in this Draft EIR.

Groundwater Recharge

Although not a recharge area managed by the SCVWD, some percolation of rainfall to groundwater occurs on the project site. The project would result in the addition of 135,590 square feet of impervious surfaces; the remaining 471,310 square feet of the project site would be pervious, with 83 percent of the site (including landscaped areas, biofiltration swale, the cemetery, and OWTS drainfields) available for continued infiltration of rainfall. Therefore, the proposed project would not interfere substantially with groundwater recharge. This impact will not be evaluated further in this Draft EIR.

Drainage Patterns

The IS (Appendix A) also concludes that the proposed project would not alter the drainage pattern of the site in a manner that would result in erosion or siltation that could cause flooding or exceed drainage system capacity. Construction of the proposed project could alter surface flows by regrading contours within the project area and by increasing the amount of impervious surfaces in the project area. However, consistent with the stormwater management requirements for projects in South Santa Clara County, the applicant would limit disturbance of natural drainage features and limit grading and clearing of native vegetation. Project design features also include a biofiltration swale and connected retention pond that have been designed to maintain off-site drainage discharges at pre-development rates for up to a 10-year storm event. Terracing associated with the cemetery design would also likely slow stormwater runoff, which would reduce erosion potential. The impact will not be evaluated further in the Draft EIR.

Stormwater Drainage

The project has been designed to limit disturbance of natural drainage features, limit grading and clearing of native vegetation, direct stormwater runoff away from building foundations and towards vegetated areas, and use permeable surfaces on walkways and patios consistent with the stormwater management requirements for projects in South Santa Clara County. As described above, a biofiltration swale and connected retention pond would maintain off-site drainage discharges at pre-development rates for up to a 10-year storm event. Therefore, any runoff water created by the project would be within the capacity of existing stormwater drainage systems. This impact will not be evaluated further in the Draft EIR.

Flood Hazards

As described in the attached IS (Appendix A), the project site is not located within a 100-year floodplain as defined on the Federal Emergency Management Agency Flood Insurance Rate Map. Although the project is within the dam inundation zone for the Chesbro Dam, SCVWD has modified dam facilities to ensure safety in a seismic event. Therefore, issues related to floodplains and dam inundation are not discussed further.

Seiche, Tsunami, or Mudflow

The IS (Appendix A) indicates that there are no lakes or other large enclosed bodies of water adjacent to the project to produce seiche events that could affect the project site, and the project site is not within a tsunami inundation area. Soils capable of generating damaging mudflows are also not present in the project area. These issues are not discussed further.

Adequacy of soils to support a cemetery use

The IS also includes an evaluation regarding whether project site soils are capable of supporting a septic system. (See Geology and Soils section of Appendix A.) The IS concludes that this impact is less than significant. (Note that, although the project site soils are considered appropriate to support a septic system, this EIR section includes an evaluation related to potential impacts to groundwater associated with the proposed OWTS and a discussion regarding the proposed OWTS design with respect to County and RWQCB standards.)

Degradation of Water Quality due to Decay of Man-Made Artifacts and Application of Pesticides and Fertilizers

The cemetery at Cordoba Center would implement natural burials, without the use of embalming fluids or caskets, therefore, concerns associated with cemetery operations that include leaching of embalming fluids such as formaldehyde, methanol, and a myriad of other organic ingredients; chemicals and substances that result from the decay of man-made artifacts and materials buried with the body including caskets, vaults, and ornamentation are not addressed. Landscaping is planned to include native grassland vegetation rather than maintained lawns, reducing the need for pesticide and fertilizers; therefore, the effects of fertilizer and pesticide applications for maintenance of lawns and other landscaping are not addressed. Accordingly, the issues of potential groundwater concern for the proposed cemetery discussed below are those associated with the leaching of products of decomposition from the buried human remains (including bacteria, viruses, organic substances, mineral salts and other inorganic elements).

IMPACTS AND MITIGATION MEASURES

Impact 4.4-1: Violate water quality standards or waste discharge requirements, or otherwise degrade water quality due to surface runoff.

During construction, the project would implement BMPs designed to limit erosion and improve stream flow through preparation of a SWPPP and conformance with applicable regulations related to potential contamination because of potentially hazardous materials. During operation, design features would effectively limit off-site drainage and treat runoff on-site. This impact would be **less than significant**.

Construction Impacts

During project construction, disturbed portions of the project area could be subject to wind erosion, rainfall, and stormwater runoff events. Construction activities could accelerate erosion and introduce nutrients or suspend sediments to surface water runoff. Additionally, heavy equipment and tools required for construction of the project would have the potential to introduce oil, grease, and chemical pollutants through leakage or an accidental spill. The project would not affect water quality in Llagas Creek, which was identified as an impaired waterbody under the CWA, because surface and groundwater on the site flow away from the creek.

Runoff water quality is regulated by the NPDES Program (established through the federal CWA). The NPDES program objective is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by state and federal statutes and regulations. Locally, the NPDES Program is administered by the Central Coast RWQCB. According to the water quality control plans of the Central Coast RWQCB, any construction activities, including grading, resulting in the disturbance of 1 acre or more would require compliance with the General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (Construction General Permit). The project would be subject to compliance with the Construction General Permit.

The NPDES permit requires the preparation of a SWPPP, which has two major objectives: (1) to help identify the sources of sediment and other pollutants that affect the quality of storm water discharges; and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in storm water and non-storm water discharges. The SWPPP would be prepared by a qualified SWPPP practitioner and/or a qualified SWPPP developer that identifies water quality controls consistent with RWQCB requirements, and would ensure that runoff quality meets water quality objectives and maintains the beneficial uses of the project area streams. The SWPPP would describe the site controls, erosion and sediment controls, means of waste disposal, implementation of approved local plans, control of post-construction sediment and erosion control measures, and management controls unrelated to stormwater. Construction associated with the proposed project would require the use and handling of hazardous materials such as fuels, lubricants, coolants, hydraulic fluids, and cleaning solvents. The use and handling of these materials presents the potential to degrade water quality through accidental spills. BMPs identified in the SWPPP would be implemented during all site development activities and would outline prevention and response to materials releases in compliance with all applicable regulations. The following would be required elements of the SWPPP:

- ▲ Temporary BMPs to prevent the transport of earthen materials and other construction waste materials from disturbed land areas, stockpiles, and staging areas during periods of precipitation or runoff (e.g., filter fence, fiber rolls, erosion control blankets, mulch; and temporary drainage swales and settling basins).
- ▲ Temporary BMPs to prevent the tracking of earthen materials and other waste materials from the project site to off-site locations (e.g., stabilized points of entry/exit for construction vehicles/equipment and designated vehicle/equipment rinse stations, and sweeping).
- ▲ Temporary BMPs to prevent wind erosion (e.g., routine application of water to disturbed land areas and covering of stockpiles with plastic or fabric sheeting).
- ▲ A spill prevention and containment plan would be prepared and implemented. Project contractors would be responsible for storing on-site materials and temporary BMPs capable of capturing and containing pollutants from fueling operations, fuel storage areas, and other areas used for the storage of hydrocarbon-based materials. This would include maintaining materials on-site (such as oil absorbent booms and sheets) for the cleanup of accidental spills, drip pans beneath construction equipment, training of site workers in spill response measures, immediate cleanup of spilled materials in accordance with directives from the RWQCB and proper disposal of waste materials at an approved off-site location that is licensed to receive such wastes.
- ▲ Temporary BMPs to capture and contain pollutants generated by concrete construction, (e.g., lined containment for rinsate to collect runoff from washing of concrete delivery trucks and equipment).

- ▲ Daily inspection and maintenance of temporary BMPs. The prime contractor would be required to maintain a daily log of temporary construction BMP inspections and keep the log on site during project construction for review by RWQCB.
- ▲ Construction boundary fencing or other barrier to limit disturbance and prevent access to areas not under active construction.
- ▲ Revegetation of disturbed areas with native seed mixes.

Operational Impacts

The project would also include new impervious surfaces that could increase the volume of runoff coming from the project site during operation of the mosque. Runoff could contain oils, grease, fuel, sediments, brake dust, and other potential water pollutants. As under pre-project conditions, stormwater would sheet-flow to the south-southwest, and it is unlikely that runoff during storm events would be carried into Llagas Creek.

New impervious surfaces, including the parking lots and play areas, are subject to stormwater treatment requirements as defined in CWA. Design of new parking lots, or other impervious surfaces greater than 10,000 square feet, include provisions for stormwater treatment through bioretention or infiltration basins, vegetated swales, and adequately sized and protected discharge structures, to ensure that stormwater flows do not result in discharge of pollutants or uncontrolled flows. The biofiltration and retention swale would be located south of the access roadway, along the southern property boundary. A smaller swale would be located between the eastern parking lot and the outdoor recreation area. The biofiltration swale and connected retention pond are included in the project design to maintain off-site drainage discharges at pre-development rates for up to a 10-year storm event. (A 10-year event is an event of such size that over a long period of time, the average time between events of equal or greater magnitude is 10 years. A 10-year event has a probability of 0.1 or 10 percent of being equaled or exceeded in any one year.)

With the implementation of a SWPPP and conformance with applicable regulations related to erosion and potential contamination because of potentially hazardous materials and design standards that require capture and treatment of surface water runoff, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise degrade water quality due to surface runoff. Therefore, the project would have a **less-than-significant** impact on water quality.

Impact 4.4-2: Conflict with County OWTS standards in a manner that is inappropriate for on-site soils or which could cause localized groundwater mounding and surface seepage.

Soil profile evaluations and percolation testing have demonstrated that the property has suitable conditions for OWTS in accordance with County requirements. However, the horizontal setback between the non-residential dispersal field and the proposed cut-slope adjacent to the pathway along the north side of the play area and sports courts does not meet the necessary setback requirements. These factors pose the risk of an unacceptable level of saturation beneath the drip fields. Due to the possibility for lateral seepage of inadequately treated effluent at the proposed cut slope downhill, the OWTS, as proposed, would result in a **significant** impact. With implementation of the recommended mitigation, which would modify the design of the OWTS, this impact would be **less than significant**.

As described above under “Thresholds of Significance,” this EIR uses three thresholds to evaluate groundwater impacts associated with the OWTS. This impact analysis focuses on the first threshold, which relates to consistency with County design requirements and the compatibility of the proposed design with on-site soils. (The second threshold, which relates to potential project-specific impacts to groundwater based on County guidelines, is discussed in Impact 4.4-3. The third threshold, which relates to cumulative groundwater quality changes, is discussed below in cumulative Impact 4.4-5.)

Two wastewater facilities are proposed to serve the project: (1) a 450 gpd system for the caretaker’s residence; and (2) a 6,000 gpd system for all other wastewater flows from project buildings and activities.

The proposed septic tank sizing (1,500 gallons) for the caretaker's residence meets the minimum requirement in the County's Onsite Systems Manual for residential systems. The 20,000-gallon septic tank for the non-residential system exceeds the minimum County requirement of two times the peak daily wastewater flow (7,530 gpd x 2 = 15,060 gallons) for large flow systems. The system also includes a flow equalization tank with a proposed sizing of 20,000 gallons, which is adequate to ensure daily wastewater flows delivered to the secondary treatment unit and dispersal field would remain below the selected system design flow of 6,000 gpd for peak activity periods (Questa 2017b). The wastewater facilities would be permitted through Santa Clara County DEH.

While conditions vary across the site, soil profile evaluations and percolation testing have demonstrated the property has suitable conditions for on-site wastewater disposal in accordance with County requirements. The area selected for the wastewater disposal fields has minimum soil depth (2 feet below dripline) and percolation rates (41 to 46 minutes per inch) suitable for use of shallow drip dispersal, which is the dispersal method proposed. In addition, ground slopes averaging 15 percent are satisfactory for the proposed dispersal method (Questa 2017b).

With respect to horizontal setback distances, the proposed wastewater facilities comply with all of the County's minimum required setbacks from wells, streams, other water features, and landscape features with two exceptions identified in Questa's 2017 groundwater study:

- ▲ About half of the proposed residential wastewater dispersal field is situated within the required horizontal setback distance to the existing cut slope located to the east, toward Monterey Road. As described above, the County's required setback distance is equal to four times the height of the cut slope, measured from the top of the slope. The setback requirement is to ensure that horizontally leaching wastewater does not seep out to the surface at a nearby cut slope. Based on the varied height of the existing cut slope, this equates to a setback distance of about 60 to 100 feet. As diagrammed in the applicant's septic system plan, the proposed dispersal field maintains a setback of about 50 to 60 feet from the cut slope. Therefore, reconfiguration of the residential wastewater dispersal field is required to provide setback distance that meets County requirements.
- ▲ Similarly, the proposed horizontal setback between the non-residential dispersal field and the proposed cut slope adjacent to the pathway along the north side of the play area and sports courts does not meet the necessary setback requirements. The proposed design does not consider: (1) the overall hydraulic loading in a relatively small, concentrated area underlain by stiff sandy clay subsoils at a shallow depth (4 feet); and (2) positioning of the wastewater disposal field immediately upslope (10 to 25 feet) from a proposed graded cut slope (5-foot high) on the north side of the playground and recreation areas. This means that because the shallow clay soils under the proposed dispersal field have limited permeability, the addition of effluent could cause localized groundwater mounding, which if located too close to a cut slope, could seep out to the surface. As described above, County requirements for setbacks to cut slopes specify a minimum distance of 25 feet or four times the height of the cut, whichever is greater. However, the *Onsite Systems Manual* also includes additional requirements and guidelines to assess and establish appropriate setbacks from cut slopes based on site specific soils, geology, and drainage conditions. Based on observed soil conditions (stiff sandy clay at 4-foot depth), Questa concluded that a minimum horizontal setback distance of 50 feet should be maintained between the non-residential drip dispersal fields and the proposed cut slope in question. (A 50-foot setback would be equivalent to the County's required setback from a drainage ditch.) The Questa groundwater study concluded that due to the likelihood for perched lateral groundwater flow conditions beneath the proposed drip dispersal field, the dispersal field configuration as proposed would likely result in downslope seepage of wastewater effluent at the proposed cut slope above the playground and recreation area. (Questa 2017b). This seepage could result in exposure of users of the facility to inadequately treated effluent.

The project site has conditions suitable for an OWTS with adequate capacity for the projected wastewater flows expected by the project. The proposed septic tanks (for primary treatment) and flow equalization system are appropriate and adequately sized according to County requirements and guidelines. Further, the proposed use of subsurface drip dispersal methods is suitable for the soil conditions and percolation test findings in the

selected areas. However, the proposed design does not consider the potential for groundwater mounding beneath the drip fields and subsequent possibility of inadequately treated effluent to seep out of the face of the proposed cut slope downhill (lateral seepage) that may result from application in an area with a restrictive (nearly impermeable) soil layer. Due to the possibility for lateral seepage of inadequately treated effluent at the proposed cut slope downhill, operation of the OWTS could result in a **significant** impact.

Mitigation Measure 4.4-2: Revise wastewater disposal plan design.

The applicant shall develop, submit for review and approval of County DEH, and implement a revised wastewater disposal plan that addresses the issue of soil saturation in the proposed drip field area by lengthening the wastewater disposal area and reducing the overall design hydraulic loading to 3,000 gpd (i.e., a 50 percent reduction compared to the proposed design). This shall be accomplished by: (a) eliminating the lower drip dispersal field shown on the proposed project wastewater plan; (b) confining drip dispersal to the area higher up on the slope in this area; (c) extending the drip field a greater distance laterally across the slope (250 to 300 feet); and (d) developing an additional alternate drip disposal field in the orchard area on the east side of property with capacity for 50 percent of the design wastewater flow.

The hillside drip field and orchard drip field shall be operated in tandem, each receiving 50 percent of the daily wastewater flow. Individually, each field shall have a primary (active) and secondary (resting) drip dispersal systems installed to meet minimum requirements for a dual, 200 percent capacity disposal system.

Significance after Mitigation

Mitigation Measure 4.4-2 would reduce the hydraulic loading to the proposed hillside drip field and increase the lateral setback to the proposed cut slope. To do this and still provide capacity for the projected wastewater flows would require the development of another wastewater disposal field area with capacity for 50 percent of the design wastewater flow. The orchard area on the east side of the project site has sufficient area and suitable soil conditions to provide this additional alternate area for wastewater disposal.

Groundwater mounding effects would be much less in the orchard area because of the much more permeable sandy and gravelly alluvial soils and deeper depth to groundwater (15 feet or more). Based on dripfield dimensions of approximately 300-feet long by 75-feet wide, the Wastewater Facilities Review (Questa 2017b) indicates a projected water table rise of less than 0.5 feet under peak day and peak week wastewater flows. This would not be a substantial change based on the estimated water table depth of 15-feet or more in this area, and would provide the required 24-inches of separation between the drip lines and the water table.

In addition, the development and operation of the drip dispersal field in the eastern side of the site would not conflict with the proposed reestablishment of an orchard in this area. The layout and design of the driplines would be developed in coordination with the orchard planting and operation plans. Sub-surface drip dispersal lines are manufactured with root-inhibiting materials and commonly installed and used for turf, landscaping, and crop irrigation. Further, by distributing the wastewater over a broader portion of the site and down-gradient areas, the mitigated wastewater disposal plan would produce lower TDS concentration changes in down-gradient areas south of the project site. (See Impact 4.4-3 for further discussion.) With implementation of Mitigation Measure 4.4-2, the on-site wastewater disposal system would result in a **less-than-significant** impact because of site soils.

Impact 4.4-3: Exceed acceptable nitrate or salt concentrations in groundwater due to operation of the on-site wastewater disposal facilities.

Operation of the OWTS could result in nitrogen levels that exceed the RWQCB/DEH water quality standards for areas served by individual water wells. This would result in a **significant** impact to water quality. With mitigation requiring modification of the OWTS and groundwater quality monitoring, this impact would be **less than significant**.

Nitrogen Loading

As discussed above, nitrate loading is a key concern associated with operation of an on-site wastewater disposal system and a groundwater quality concern for the area in general. The drinking water standard (MCL) that applies to groundwater is 10 mg-N/L. For purposes of evaluating project-specific impacts from on-site wastewater discharges, the County DEH has established a groundwater quality criterion of 7.5 mg-N/L, applicable at the nearest location of an existing or potential water supply well; this is to provide a 25 percent safety factor below the drinking water MCL. Additionally, Central Coast RWQCB has identified a groundwater nitrogen median baseline concentration target of 5 mg-N/L for the Llagas Subbasin, as a whole (discussed further under cumulative Impact 4.4-5). The target is based on preserving existing water quality along with control of point source nitrogen sources in the basin. The median baseline value reflects an average long-term condition and does not apply at particular locations. Groundwater quality at specific locations within the Llagas Subbasin may be above or below the median baseline value, depending on the local land use activities and sources of infiltration and recharge.

Wastewater management facilities for the proposed project would include two independent OWTS, one for the caretaker's residence and a larger system to serve all non-residential facilities. The systems would include supplemental/secondary treatment units, which have proper NSF 40 certification as required by the County's *Onsite Systems Manual*, for both the caretaker's residence and for the non-residential facilities.¹ However, since neither the NSF 40 certification nor the Multi-Flo treatment unit (as proposed) guarantee a specific amount of nitrogen removal, additional analysis of potential groundwater nitrate-nitrogen impacts was conducted to determine an acceptable level of treatment and overall nitrogen loading for the wastewater facilities. Questa analyzed the proposed wastewater treatment and dispersal plan in accordance with County DEH guidelines for estimating groundwater nitrate-nitrogen impacts.

The nitrate loading analysis by Questa used the County criterion of 7.5 mg-N/L at the nearest location of an existing or potential water supply well to determine the acceptable level of nitrogen treatment and loading for both scenarios. Questa's analysis considered a range of nitrogen uptake and removal by soils and vegetation appropriate for the on-site soil conditions and use of drip dispersal methods. Based on its review of the plan as proposed by the applicant, Questa determined that the OWTS would have to produce a final effluent quality of 15 mg-N/L or better before the effluent enters the drainfield to meet the County criterion for groundwater quality impacts. (In other words, the 15 mg-N/L is the final effluent quality necessary for the [pre-mitigated] OWTS to meet the 7.5 mg-N/L water quality standard at the nearest well.) Questa also analyzed the nitrate loading impacts from the revised wastewater dispersal plan as described in Mitigation Measure 4.4-2, and determined that 20 mg-N/L would be an acceptable effluent quality for the mitigated plan. The acceptability of a slightly higher effluent limit of 20 mg-N/L for the mitigated plan is due to the spreading of the treated water over a much broader area of the site, including the orchard area.

Salt Loading

Domestic water supply for the project would be provided by West San Martin Water Works, Inc., which has reported TDS values of 290 to 340 mg/L. An average TDS addition of 200 mg/L was assumed to reflect the salt loading from residential sewage for average wastewater flow conditions. Dissolved solids are not removed to any appreciable degree through on-site treatment systems (septic tanks or supplement treatment systems) or by passage through the soil. The proposed wastewater disposal system would contribute to a localized incremental increase in percolate TDS concentration of about 100 mg/L. The resultant TDS concentrations are within the secondary drinking water TDS standard of 500 mg/L and comparable with existing background TDS concentrations in the northern shallow aquifer of the Llagas Subbasin.

Summary

Based on analysis conducted in the Wastewater Facilities Review (Questa 2017b), the salt loading impacts of the proposed project would be localized and at levels that would result in a less-than-significant impact to the aquifer or any existing water supply wells. However, nitrogen concentrations would exceed acceptable levels. It should be noted that elevated nitrogen concentrations in groundwater can be exacerbated by heavy

¹ NSF International is an American product testing, inspection and certification organization based in Ann Arbor, Michigan.

use of fertilizer for landscaping; however, the proposed native landscape would not require heavy fertilizer use. For the reasons outlined above, the proposed project could exceed County standards, due to the current OWTS design. This would result in a **significant** impact to water quality.

Mitigation Measures 4.4-3: Supplemental nitrogen treatment and effluent monitoring

The applicant shall implement the following measures to treat and monitor nitrogen loading from the on-site wastewater system:

- ▲ Modify the proposed wastewater facilities plan to include changes in the dispersal facilities as described in Mitigation Measure 4.4-2 and add a supplemental treatment system capable of meeting a 20 mg/L (average) nitrogen effluent performance limit.
- ▲ Coordinate with Santa Clara County DEH to establish wastewater effluent monitoring requirements to provide on-going assurance that the system performs adequately. Compliance with these requirements shall be considered conditions of the operating permit for the project.

Significance after Mitigation

The recommended 20 mg/L effluent nitrogen limit is achievable (to meet the 7.5 mg/L standard at the nearest well location) with available practicable technology, but it is not assured with the Multi-Flo wastewater system currently proposed. Use of a supplemental treatment system and subsequent monitoring would assure compliance with these effluent limits. With implementation of Mitigation Measure 4.4-3, this impact would be **less than significant**.

Impact 4.4-4: Result in deterioration of groundwater quality below drinking water standards due to operation of the cemetery.

Operation of the cemetery could result in nitrogen levels that exceed the water quality standards for areas served by individual water wells. This would result in a **potentially significant** impact to water quality. With mitigation that would limit the rate of burials and require groundwater monitoring and response to changes in groundwater quality, this impact would be **less than significant**.

Based on literature cited in *Cemetery Water Quality Impact Review* (Questa 2017a) and with knowledge from the on-site wastewater field regarding the behavior and attenuation of bacteria, viruses and other contaminants in soils and groundwater, the following are identified as key guidelines and criteria to prevent adverse effects on groundwater quality from cemeteries.

- ▲ **Soil conditions.** Deep, well drained, medium to fine textured soils are preferred to facilitate decomposition processes and promote the adsorption, filtration and long travel times for water and contaminant movement. Soil should be permeable enough to allow the entrance of air, so that decomposition can occur. Porous soil types such as sand or gravel should be avoided, as should burials directly in fractured rock.
- ▲ **Vertical separation to groundwater.** An unsaturated soil zone of at least 3 to 5 feet beneath the graves is necessary for maximum attenuation of bacteria and viruses and other decomposition processes. Water movement and contaminant transport in the unsaturated (vadose) zone is slow compared to the saturated zone, providing greater residence time for effective removal of microbial contaminants.
- ▲ **Horizontal setbacks from wells and watercourses.** Minimum horizontal setback distances of 100 feet or more should be maintained from wells and watercourses as a safeguard against contaminant entry into an active water supply or seepage into surface water body. Horizontal setbacks from drains and cut slopes. Graves should be setback from site drainage facilities (surface or sub-surface) and from cut slopes/embankments to minimize the potential for lateral seepage flow to “breakout” at the surface. Appropriate setback distances are site-specific, and should be determined based on factors such as soil conditions, rainfall and percolation conditions, ground slope, grading, and burial depths.

- ▲ **Landscape position.** Locating cemeteries on upland landscapes in areas of gently to moderately sloping terrain is preferred. Lowland areas and depressions should be avoided to minimize the potential for inundation from rising water tables and/or flooding.

Exhibit 4.4-2, above, shows the project location and general soil types found on the site. The proposed cemetery would be located on the west side of the site which is primarily within the colluvium hillslopes. However, the southwest corner of the cemetery site is mapped as Quaternary Age older alluvium and the northeast corner is mapped as Franciscan Greenstone. In this area, groundwater occurs at depths of 18 to 25 feet below the ground surface, within fractured bedrock. Burials in the cemetery would be concentrated in the same area in a given year or group of years. The cemetery would be developed over four or more phases with the first phase occurring at the north end of the cemetery and moving down the slope in sequential phases in successive years. The area proposed for the cemetery has the following conditions considered favorable for protection of groundwater against the leaching effects from decomposition products:

- ▲ well-drained loamy surface soils and underlying fine-textured clayey sub-soils;
- ▲ vertical separation distance of 5 to over 15 feet to groundwater beneath the proposed graves;
- ▲ gentle to moderate hillside landscape position of about 7 to 25 percent, averaging 15 percent; and
- ▲ the nearest existing domestic water supply well is located approximately 350 feet west of the southwest corner of the proposed cemetery, and at a sufficiently safe horizontal setback distance to ensure against water quality contamination from the proposed cemetery (see Exhibit 4.4-4).

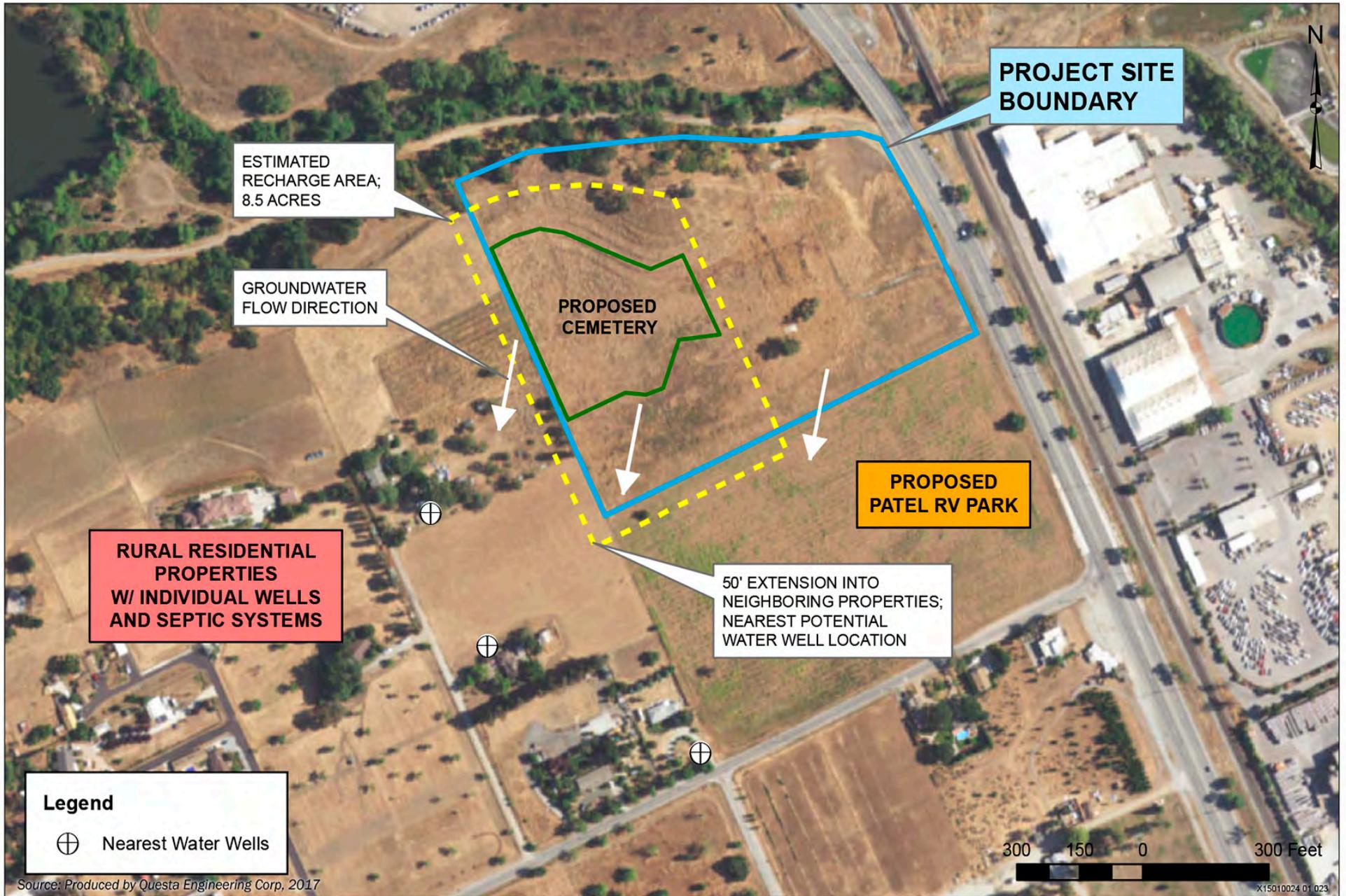
Bacteria and Viruses

It is well known from studies and experience with OWTS that soils have a tremendous capacity to remove bacteria and viruses from percolating wastewater. The retention and die-off of most, if not all, pathogenic bacteria and viruses occur within a few feet in medium to fine textured soils for standard leachfield systems (Anderson et al. 1994; Washington State DOH 1990) and provide the basis for establishment of the standard 5-foot soil depth and groundwater separation criteria for septic tank-leachfield systems (Santa Clara County 2014). Viruses can also be retained and eliminated within a few feet, depending on the soil conditions; but it is generally accepted that they can persist longer and travel farther in the soil than bacteria (Anderson et al. 1991; Ayres Associates 1993). Water movement and contaminant transport in the unsaturated (vadose) zone is slow compared to the saturated zone, providing greater residence time for effective removal of microbial contaminants. Additionally, most of the research studies of OWTS pathogen removal have focused on sandy soil types; and the results of these studies have formed the basis for the soil depth criteria for OWTS. Consequently, the soil depth criteria are oriented toward the “worst case” conditions (sandy, permeable soils), and there is a built-in safety factor, with respect to pathogen removal, for finer textured soils with higher silt and clay fractions.

The same principles and criteria adopted for OWTS are relevant to gauging the leaching effects from buried human remains in a cemetery. An additional measure of safety is provided by the fact that leaching and transport of microbes from graves is driven only by seasonal rainfall percolation, and not by a steady flow of percolating wastewater which is the case for leachfield systems. Based on soil and groundwater conditions (5 to greater than 15-foot unsaturated zone) and proposed cemetery burial plans, pathogenic bacteria and viruses associated with decomposing bodies would not pose a threat of impact to groundwater, because they would be effectively attenuated and removed during passage through the deep fine-textured native soils that separate the graves from the groundwater.

Nitrogen Loading

Soil conditions and planned hillside terracing for burial plots would contribute to enhanced opportunities for nitrogen removal via plant uptake and denitrification. Aerobic conditions, conducive to nitrification (conversion of ammonium to nitrate) would predominate in the soils between each terrace row of graves.



Legend
 ⊕ Nearest Water Wells

Exhibit 4.4-4

Cemetery Groundwater Recharge Area and Nearest Well Locations



This would facilitate pathways for some of the nitrogen leached from an uphill grave to undergo nitrification in the aerobic soil zones, followed by denitrification where lateral seepage intersects anaerobic zones around the next row of downhill graves, and so on. The proposed phasing of the cemetery and sequencing of burials from uphill to downhill would support this pattern of nitrogen transformation in the soil. Additionally, because of the fact that percolating seepage/water movement would be seasonal and episodic in response to rainfall conditions, the nitrification and denitrification processes, which tend to be slow, would be afforded relatively long timeframes to achieve maximum potential.

Table 4.4-2 presents the estimated long-term resultant groundwater nitrate concentration impact for the full range of annual burial rates analyzed in the *Cemetery Water Quality Impact Review* (Questa 2017a), for both 25 and 50 percent soil-nitrogen removal assumptions. (The range of 25 to 50 percent is considered conservative. For comparison, nitrogen attenuation assumptions used by the Santa Clara Valley Water District in the analysis for the Llagas Subbasin Salt and Nutrient Management Plan range from 60 percent for horse manure to 95 percent for lawn fertilizer.) The results represent the estimated maximum, long-term nitrate concentration reached in the defined recharge area for the given factors (burial rate and nitrogen removal). Highlighted values in Table 4.4-2 are resultant concentrations below the 7.5 mg/L criterion for groundwater nitrate impact per guidelines for on-site wastewater systems (as established in the *Onsite Systems Manual*). The results indicate annual burial rates of 30 per year or fewer would be safely within the 7.5 mg/L criterion based on a conservative estimate of 25 percent soil nitrogen removal. Up to 50 burials per year may be acceptable based on a higher soil nitrogen removal rate of 50 percent. Although the 50 percent nitrogen removal rate appears reasonable based on review of preliminary cemetery plans, site conditions, and principles of nitrogen behavior in soils, the factors and processes are complex and there is no means of validating this estimate except through implementation and monitoring over several years of cemetery operation.

Table 4.4-2 Estimated Localized Long-term Groundwater Nitrate Concentration¹

Annual Rate of Burial	Resultant Nitrate Concentration (mg/L)	
	Nitrogen Removal via Soil Adsorption, Denitrification, and Plant Uptake	
	25%	50%
20	4.63	3.25
30	6.70	4.63
40	8.76	6.01
50	10.83	7.39
60	12.89	8.76
80	17.00	11.52
100	21.16	14.27

Notes: Blue shading indicates concentrations below the County's 7.5 mg-N/L criterion.

¹ At nearest potential neighboring well location (50 foot beyond property line)

Source: Questa 2017a

Salt Loading

For 30 to 50 annual burials, calculations indicate resultant TDS concentration in the affected recharge area to be in range of 316 to 327 mg/L, respectively, which would amount to an approximate increase of 5 to 9 percent over the assumed background concentration of 300 mg/L (Questa 2017a). The salt loading impacts of the proposed cemetery would be localized, with resultant concentrations similar to existing conditions in the area. There would not be substantial effects on the aquifer or any existing water supply wells.

Summary

The basic elements and decomposition products from buried remains are similar to materials found in domestic sewage, and many constituents are identical to those present in the natural environment. The impact on groundwater is not because of any specific toxicity they possess, but rather because of the potential for increasing the concentration of naturally occurring organic or inorganic substances to levels that would render the groundwater unfit for potable supplies or other uses. As described above, at annual burial rates greater than 30 graves, potential for groundwater contamination associated with bacteria and viruses is low; however, at that burial rate, there is potential for operation of the cemetery to result in nitrogen loading in excess of the criterion for groundwater nitrate impact per guidelines for on-site wastewater systems (as established in the *Onsite Systems Manual*). This is a **potentially significant** impact.

Mitigation Measure 4.4-4: Cemetery phasing and groundwater monitoring.

Prior to initiating any burial, the applicant shall submit a cemetery development phasing plan for review and approval by the Santa Clara County DEH that includes an established annual limit on the number of burials and a groundwater monitoring plan that includes (at a minimum) the following measures:

- ▲ The burials shall be sequenced to begin in the northeastern corner of the cemetery and proceed down-hill (southerly) on the east side of the proposed driveway, maintaining maximum buffer distance between the graves and the westerly property line.
- ▲ Monitoring wells shall be installed within the cemetery and along the downslope (southerly and westerly) property lines; at a minimum, monitoring shall include quarterly sampling and analysis for nitrate and TDS concentrations to observe water quality changes over time. A minimum of six monitoring wells shall be installed as follows: three within the cemetery area; two along the westerly property line; and one along the southerly property line.

Annual burial rate shall be limited to a baseline of 30 burials per year for the first 5 years of operation, subject to adjustment based on the results of groundwater monitoring.

- ▲ Groundwater monitoring data shall be submitted to County Planning annually for ongoing review. If at any time the groundwater nitrate concentration at monitoring wells along the westerly property line exceed 7.5 mg-N/L, the monitoring wells shall be re-sampled and burials shall cease until monitoring results show the groundwater nitrate concentrations have dropped below the 7.5 mg-N/L evaluation criterion, at which time the County may authorize continued burials. If monitoring results show exceedance of the 7.5 mg-N/L criterion more than twice in one year, the monitoring frequency shall be increased to monthly sampling and nitrate analysis and continued until the results show at least 4 consecutive months of compliance with the 7.5 mg-N/L criterion. Additionally, repeat exceedances of 7.5 mg-N/L in the groundwater during a given year shall be sufficient cause for the County to require reduction in the annual burial rate, based on recommendations by a qualified groundwater quality specialist and approval by the County, or consideration of other mitigation measures proposed by the Cordoba Center to achieve the same objective of <7.5 mg-N/L.
- ▲ After 5 years of cemetery operation, the groundwater quality data (nitrate and TDS), annual and total number of burials, and recorded rainfall conditions and other factors shall be compared to the expected groundwater quality changes according to the methodology presented in the analysis by Qesta (2017a). This recorded data shall be used to confirm or modify the assumptions used in establishing the baseline rate of annual burial (30 per year). The review and analysis shall be conducted by a qualified professional with demonstrated groundwater expertise, and shall form the basis for either: (a) maintaining the baseline annual burial rate; or (b) adjusting the annual burial rate, either higher or lower than the adopted baseline amount. The full report, including any recommended adjustment to the rate of burials, shall be reviewed and approved by the County Planning Office.

Significance after Mitigation

The rate of 30 burials per year established in Mitigation Measure 4.4-4 is expected to limit localized groundwater nitrate concentrations to less than 7.5 mg/L at the nearest potential water well location (50 feet into adjoining properties) assuming 25 percent nitrogen removal through soil adsorption, denitrification, and plant uptake (see Table 4.4-2), which is the more conservative assumption. This is consistent with the methodology and criterion applied by the County for evaluation of impacts of OWTS. With implementation of Mitigation Measure 4.4-4, which would establish limits on the annual burial rate and require monitoring to confirm that operation does not affect groundwater quality, this impact would be **less than significant**.

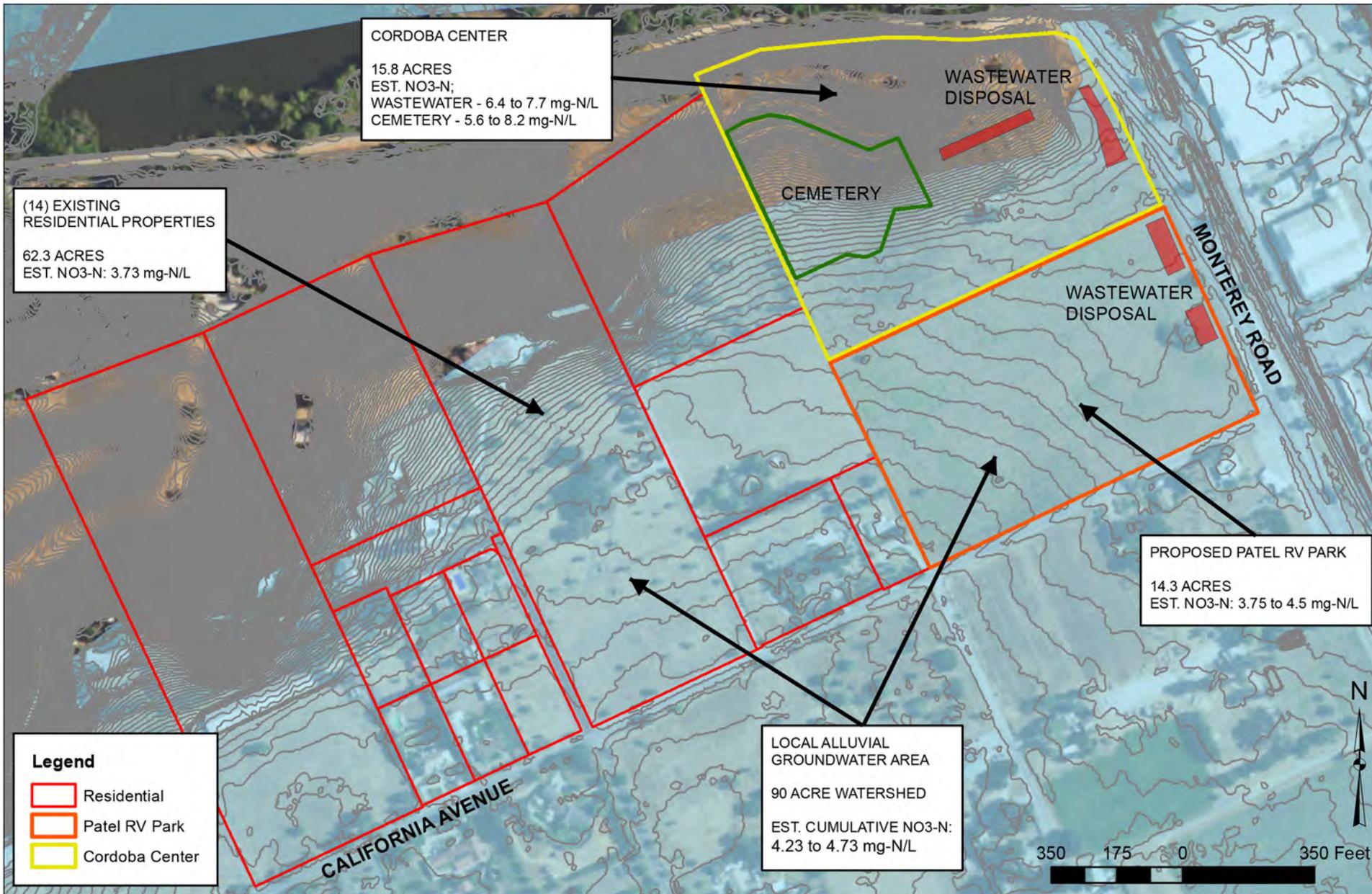
CUMULATIVE IMPACTS

Impact 4.4-5: Cumulative nitrate loading.

Less than considerable contribution. Analysis of cumulative groundwater effects indicate that nitrate concentrations would be below the MWQB value of 5 mg/L groundwater quality target established by the Central Coast RWQCB for the Llagas Subbasin. The cumulative impact would be **less than considerable**.

In addition to the localized groundwater-nitrate effects addressed above, the combined nitrogen leached from the cemetery and wastewater facilities at the Cordoba Center could have potential effects on groundwater quality extending farther south and west of the property, where there is substantial reliance on the groundwater for domestic water well supplies. To evaluate the potential effects, an expanded cumulative mass-balance nitrate loading analysis was completed for a groundwater-recharge area of approximately 91 acres, encompassing the project site and 15 neighboring properties to the south and west (see Exhibit 4.4-5). The local area delineated for analysis includes properties in the local drainage basin north of California Avenue and west of Monterey Road (approximately 3,000 feet). These properties all overlie and share a common and relatively well-defined portion of the alluvial groundwater basin in this northern end of San Martin. The neighboring properties include: (a) the 14-acre property immediately south of the Cordoba Center Project proposed for development of an RV Park; and (b) 14 developed rural residential properties to the west, with lot sizes ranging from 0.9 to 16.3 acres, and averaging about 4.5 acres per parcel. All but three of the residential properties rely on individual wells for water supply; the others have water service from West San Martin Water Works, Inc.

Cumulative nitrate loading analysis was conducted as part of project reviews (Questa 2017a). The approach included: (1) developing an estimate of the groundwater-nitrate loading and resultant concentrations in the rural residential area from discharges of multiple septic systems in the area; (2) utilizing the projected groundwater nitrate loading and concentration estimates for the Cordoba Center (cemetery and wastewater facilities) and similar projections for the proposed RV Park, south of the project site; and (3) merging all three into a composite or cumulative estimate for the local groundwater area, assuming complete mixing of nitrogen from all sources. As discussed above in Section 4.4.3, "Regulatory Setting," Central Coast RWQCB has established a groundwater-nitrogen-concentration objective of 5 mg/L for the overall Llagas Subbasin, based on preserving existing groundwater quality or attainable levels believed to be achievable through control of point sources of nitrogen. The results of the cumulative nitrate loading analysis project a cumulative local groundwater nitrate concentration, which includes contributions from the proposed Cordoba Center and Patel RV Park projects, in the range of 4.23 to 4.73 mg-N/L. This represents an increase of about 0.5 to 1.0 mg-N/L above the estimated concentration of 3.73 mg/L attributed to septic system contributions from the existing 14 rural residential properties in the area of analysis. About 52 to 54 percent of the increase would be attributable to the proposed Cordoba Center project, and 46 to 48 percent attributable to the proposed Patel RV Park. The resultant concentrations would be below the 5 mg/L groundwater quality target established by the Central Coast RWQCB for the Llagas Subbasin. As discussed above in Section 4.4.3, "Regulatory Setting," the target is a median value for the overall Llagas Subbasin, based on preserving existing groundwater quality or attainable levels believed to be achievable through control of point sources of nitrogen. On this basis, the cumulative nitrate loading effects on groundwater in the area because of contributions from the proposed Cordoba Center cemetery and wastewater facilities would be **less than considerable**.



Source: Prepared by Questa Engineering Core in 2017

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Exhibit 4.4-5

Extended Cumulative Groundwater Impact Area



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4.5 NOISE

4.5.1 Introduction

This section includes a description of acoustic fundamentals, existing ambient noise conditions, and an analysis of potential short- and long-term noise impacts associated with project implementation. Mitigation measures are recommended, as necessary, to reduce potentially significant adverse noise impacts. The information contained in this section is based, in part, on data from Section 4.6, “Transportation and Circulation.”

4.5.2 Environmental Setting

ACOUSTIC FUNDAMENTALS

Acoustics is the scientific study that evaluates perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise. Noise is typically expressed in decibels (dB), which is a common measurement of sound energy. To provide some context to noise levels described throughout this section, common sources of environmental noise and associated noise levels are presented in Table 4.5-1.

Table 4.5-1 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet	100	
Gas lawnmower at 3 feet	90	
Diesel truck moving at 50 mph at 50 feet	80	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, Gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	60	
Quiet urban daytime	50	Large business office, Dishwasher in next room
Quiet urban nighttime	40	Theater, Large conference room (background)
Quiet suburban nighttime	30	Library, Bedroom at night, Concert hall (background)
Quiet rural nighttime	20	Broadcast/Recording Studio
	10	
Threshold of Human Hearing	0	Threshold of Human Hearing

Notes: dBA=A-weighted decibels; mph=miles per hour

Source: Caltrans 2013a

Sound Properties

A sound wave is initiated in a medium by a vibrating object (e.g., vocal chords, the string of a guitar, the diaphragm of a radio speaker). The wave consists of minute variations in pressure, oscillating above and below the ambient atmospheric pressure. The number of pressure variation cycles occurring per second is referred to as the frequency of the sound wave and is expressed in hertz.

Directly measuring sound pressure fluctuations would require the use of a very large and cumbersome range of numbers. To avoid this and have a more useable numbering system, the dB scale was introduced. A sound level expressed in decibels is the logarithmic ratio of two like pressure quantities, with one pressure quantity being a reference sound pressure. For sound pressure in air the standard reference quantity is generally considered to be 20 micropascals, which directly corresponds to the threshold of human hearing. The use of the decibel is a convenient way to handle the million-fold range of sound pressures to which the human ear is sensitive. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly summed. For example, a 65-dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.

The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed, identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels. For this reason, the A-weighted sound levels are used to predict community response to noise from the environment, including noise from transportation and stationary sources, and are expressed as A-weighted decibels. All sound levels discussed in this section are A-weighted decibels unless otherwise noted.

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes and stationary sources such as activity at construction sites, machinery, and commercial and industrial operations. As sound travels through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers. Noise generated from mobile sources generally attenuate at a rate of 4.5 dB per doubling of distance from the source. Noise from stationary sources spread with more spherical dispersion patterns that attenuate at a rate of 6 to 7.5 dB per doubling of distance from the source.

Atmospheric conditions such as wind speed, wind direction, turbulence, temperature gradients, and humidity also alter the propagation of noise and affect levels at a receiver. Furthermore, the presence of a barrier (e.g., topographic feature, intervening building, and dense vegetation) between the source and the receptor can provide substantial attenuation of noise levels at the receiver. Both natural (e.g., berms, hills, and dense vegetation) and human-made features (e.g., buildings and walls) may function as noise barriers.

Common Noise Descriptors

The intensity of environmental noise fluctuates over time, and several different descriptors of time-averaged noise levels are used. The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and fluctuation of both the noise source and the environment. The noise descriptors most often used to characterize environmental noise are defined below (Caltrans 2013a).

- ▲ **Equivalent Noise Level (L_{eq}):** The average noise level during a specified time period; that is, the equivalent steady-state noise level in a stated period of time that would contain the same acoustic energy as the time-varying noise level during the same period (i.e., average noise level).
- ▲ **Median Noise Level (L_{50}):** Noise levels that are exceeded 50 percent of the measurement duration.
- ▲ **Maximum Noise Level (L_{max}):** The highest instantaneous noise level during a specified time period.
- ▲ **Minimum Noise Level (L_{min}):** The lowest instantaneous noise level during a specified time period.
- ▲ **Day-Night Noise Level (L_{dn}):** The 24-hour L_{eq} with a 10-dB penalty applied during the noise-sensitive hours from 10 p.m. to 7 a.m., which are typically reserved for sleeping.

- ▲ **Community Noise Equivalent Level (CNEL):** Similar to the L_{dn} described above with an additional 5-dB penalty applied during the noise-sensitive hours from 7 p.m. to 10 p.m., which are typically reserved for evening relaxation activities.
- ▲ **Single Event Noise Levels (SEL):** Sounds that occur in an irregular or non-repetitive manner, which makes them difficult to anticipate; these are usually measured by L_{max} noise levels.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. The L_{eq} , or average noise level over a given period of time, is the foundation of composite noise descriptors such as L_{dn} and CNEL, which effectively indicate community response to ambient noise levels.

Effects of Noise on Humans

Excessive and chronic (long-term) exposure to elevated noise levels can result in auditory and non-auditory effects on humans. Auditory effects of noise on people are those related to temporary or permanent hearing loss caused by loud noises. Non-auditory effects of exposure to elevated noise levels are those related to behavior and physiology. The non-auditory behavioral effects of noise on humans are primarily subjective effects such as annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communications, sleep, and learning. The non-auditory physiological health effects of noise on humans have been the subject of considerable research into possible correlations between exposure to elevated noise levels and health problems, such as hypertension and cardiovascular disease. The mass of research implies that noise-related health issues are predominantly the result of behavioral stressors and not a direct noise-induced response. The extent to which noise contributes to non-auditory health effects remains a subject of considerable research, with no definitive conclusions.

Ground Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous (e.g., operating factory machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (Federal Transit Administration [FTA] 2006, Caltrans 2013b). PPV and RMS vibration velocity are normally described in inches per second (in/sec).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2006). Table 4.5-2 includes the general human response to different ground vibration-velocity levels.

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Construction activities can generate sufficient ground vibrations to pose a risk to nearby structures.

Table 4.5-2 Human Response to Different Levels of Ground Noise and Vibration

Vibration-Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Notes: VdB = vibration decibels referenced to 1 μ inch/second and based on the root mean square (RMS) velocity amplitude.

Source: FTA 2006

Construction vibrations can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations result from vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment. Constant or transient vibrations can weaken structures, crack façades, and disturb occupants (FTA 2006).

EXISTING CONDITIONS

The project site is currently vacant and adjacent to rural residential areas to the west and south. A creek and riparian area are located directly north. Monterey Road, a transit corridor, is adjacent to the eastern boundary of the property, as shown in Chapter 3, "Project Description," Exhibit 3-2. A Union Pacific Railroad corridor is located east of Monterey Road, just over 120 feet from the project site. The rail corridor is one of the options being evaluated for the California high-speed train (HST) alignment between San Jose and Gilroy. Several large industrial buildings are located further east of the project site, across Monterey Road and the railroad corridor.

Sensitive Land Uses

Noise-sensitive land uses generally include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Parks, schools, historic sites, cemeteries, and recreation areas are also generally considered sensitive to increases in exterior noise levels. Places of worship, and other similar places where low interior noise levels are of great importance, are also considered noise-sensitive. Noise-sensitive land uses are also considered to be vibration-sensitive.

Existing noise-sensitive land uses near the site are scattered rural residential units. The nearest sensitive receptors are residential units located 350 feet to the southwest (Residence 1) and to the west (Residence 2), and 400 feet south (Residence 3) of the nearest project site boundaries. See Exhibit 4.5-1.

Ambient Levels

Ambient noise levels tend to be most affected by proximity to transit corridors, major streets, highways, rail lines, and airports. The existing noise environment in the project vicinity is primarily influenced by transportation noise from motor vehicle traffic on Monterey Road and freight and commuter train (i.e., Caltrain) traffic on the Union Pacific Railroad tracks that parallel Monterey Road. All vehicles traveling to and from the project site would access the site via Monterey Road. As discussed in Section 4.6, "Transportation and Circulation," the existing weekday peak hour volume on Monterey Road in the project vicinity is 1,595 vehicles. Traffic noise modeling indicates that noise-levels are expected to be 64.7 L_{dn} dBA at 100 feet from the centerline of the road. Background noise sources include U.S. 101, which is roughly 0.6 mile away, and the San Martin Airport, a general aviation airfield located at 13030 Murphy Avenue in San Martin, roughly 1 mile southeast of the project site. The project site is within the Airport Influence Area of the



Exhibit 4.5-1

Sensitive Receptors



San Martin Airport (Santa Clara County Airport Land Use Commission 2016) but lies outside of the 55-dB CNEL noise contour. There are no private airstrips within the project vicinity. The closest private airstrip is Frazier Lake Airpark located more than 12 miles south of the project area.

The *Santa Clara County General Plan* defines areas that experience noise in excess of 55 L_{dn} as noise impact areas (Santa Clara County 2015).

4.5.3 Regulatory Setting

FEDERAL

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. After its inception, the EPA Office of Noise Abatement and Control issued the Federal Noise Control Act of 1972, establishing programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, noise control guidelines and regulations contained in EPA rulings in prior years remain in place by designated Federal agencies where relevant.

Federal Aviation Administration

The Federal Aviation Administration establishes 65 dB CNEL as the maximum noise exposure limit associated with aircraft noise measured at exterior locations in noise-sensitive land uses (e.g., land uses where quiet environments are essential such as residential areas, churches, and hotels). This standard is also generally applied to railroad noise.

U.S. Department of Transportation

To address the human response to groundborne vibration, FTA set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. Among these guidelines are the following maximum-acceptable vibration limits:

- ▲ 65 VdB, referenced to 1 microinch per second and based on the RMS velocity amplitude, for land uses where low ambient vibration is essential for interior operations (e.g., hospitals, high-tech manufacturing, laboratory facilities);
- ▲ 80 VdB for residential uses and buildings where people normally sleep; and
- ▲ 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, offices) (FTA 2006).

STATE

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation.

Though not adopted by law, the *State of California General Plan Guidelines*, published by the Governor of California Office of Planning and Research (2003), provide guidance for the compatibility of projects within areas of specific noise exposure. Acceptable and unacceptable community noise exposure limits for various land use categories have been determined to help guide new land use decisions in California communities. In many local jurisdictions, these guidelines are used to derive local noise standards and guidance.

California Department of Transportation

In 2013, California Department of Transportation (Caltrans) published the *Transportation and Construction Vibration Guidance Manual*. The manual provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. Table 4.5-3, below, presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

Table 4.5-3 Caltrans Recommendations Regarding Vibration Levels

PPV (in/sec)	Effect on Buildings
0.4-0.6	Architectural damage and possible minor structural damage
0.2	Risk of architectural damage to normal dwelling houses
0.1	Virtually no risk of architectural damage to normal buildings
0.08	Recommended upper limit of vibration to which ruins and ancient monuments should be subjected
0.006-0.019	Vibration unlikely to cause damage of any type

Notes: PPV= peak particle velocity

Source: Caltrans 2013b

LOCAL

Santa Clara County General Plan

The Santa Clara County General Plan (2015) recommends a maximum interior noise level for intermittent noise of 45 dBA for residential and church use. The following policies of the Safety and Noise Chapters are applicable to the project.

Countywide Issues and Policies

- ▲ **Policy C-HS 24:** Environments for all residents of Santa Clara County free from noises that jeopardize their health and well-being should be provided through measures which promote noise and land use compatibility.
- ▲ **Policy C-HS 25:** Noise impacts from public and private projects should be mitigated.
- ▲ **Policy C-HS 27:** Land uses approved by the County and the cities shall be consistent with the adopted policies of the Santa Clara County Airport Land Use Commission Comprehensive Land Use Plans for specific airports.

Rural Unincorporated Areas

- ▲ **Policy R-HS 1:** Significant noise impacts from either public or private projects should be mitigated.
- ▲ **Policy R-HS 2:** The County should seek opportunities to minimize noise conflicts in the rural areas.
- ▲ **Policy R-HS 4:** Land uses approved by the County and the cities shall be consistent with the adopted policies of the Santa Clara County Airport Land Use Commission's Comprehensive Land Use Plan.

Santa Clara County Code of Ordinances

Chapter 8. – Control of Noise and Vibration of the *Santa Clara County Code of Ordinances* contains applicable regulations regarding noise levels.

Section B11-152. – Exterior noise limits

Section B11-152 of the Santa Clara County Code identifies maximum permissible sound levels by receiving land use. The noise standards for the various receiving land use categories are presented in Table 4.5-4, below, and apply to all property within any zoning district. Section B11-152 indicates that no person may operate or cause to be operated any source of sound at any location within the unincorporated territory of the County or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by the person, which causes the noise level when measured on any other property either incorporated or unincorporated, to exceed:

- a. The noise standard for that land use as specified in Table B11-152 [included below as Table 4.5-4] for a cumulative period of more than 30 minutes in any hour; or
- b. The noise standard plus 5 dB for a cumulative period of more than 15 minutes in any hour; or
- c. The noise standard plus 10 dB for a cumulative period of more than 5 minutes in any hour; or
- d. The noise standard plus 15 dB for a cumulative period of more than 1 minute in any hour; or
- e. The noise standard plus 20 dB or the maximum measured ambient, for any period of time.

Section B11-152 further stipulates:

- ▲ If the measured ambient level exceeds that permissible within any of the first four noise limit categories above, the allowable noise exposure standard will be increased in 5 dB increments in each category as appropriate to encompass or reflect the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under the category will be increased to reflect the maximum ambient noise level.
- ▲ If the noise measurement occurs on a property adjoining a different land use category, the noise level limit applicable to the lower land use category, plus 5 dB, will apply.
- ▲ In order to compensate for the character of sound, Section B11-152 states that in the event the alleged offensive noise contains a steady, audible tone such as a whine, screech or hum, or contains music or speech conveying informational content, the standard limits [see Table 4.5-4] will be reduced by 5 dB.

Table 4.5-4 Santa Clara County Exterior Noise Limits (levels not to be exceeded more than 30 minutes in any hour)

Receiving Land Use Category	Time Period	Noise Level (dBA L50)
One- and Two-Family Residential	10:00 p.m. – 7:00 a.m.	45
	7:00 a.m. – 10:00 p.m.	55
Multiple-Family Dwelling	10:00 p.m. – 7:00 a.m.	50
Residential Public Space	7:00 a.m. – 10:00 p.m.	55
Commercial	10:00 p.m. – 7:00 a.m.	60
	7:00 a.m. – 10:00 p.m.	65
Light Industrial	Any Time	70
Heavy Industrial	Any Time	75

Section B11-153. – Interior Noise Limits

Section B11-153 of the Santa Clara County Code identifies maximum permissible dwelling interior sound levels for multifamily residential dwellings which applies, unless otherwise specifically indicated, within all dwellings. From 10:00 p.m. to 7:00 a.m. the allowable interior noise level is 35 dBA L_{max} and from 7:00 a.m. to 10:00 p.m. the allowable interior noise level is 45 dBA L_{max} . Section B11-152 indicates that no person will

operate or cause to be operated within a dwelling unit any source of sound or allow creation of any noise which causes the noise level when measured inside a neighboring receiving dwelling unit to exceed:

- a. The noise standard for a cumulative period of more than 5 minutes in any hour; or
- b. The noise standard plus 5 dB for a cumulative period of more than 1 minute in any hour; or
- c. The noise standard plus 10 dB or the maximum measured ambient, for any period of time.

If the measured ambient level exceeds that permissible within any of the noise limit categories above, the allowable noise exposure standard will be increased in 5-dB increments in each category as appropriate to reflect the ambient noise level.

Section B11-154. – Prohibited Acts, (6) Construction/Demolition

Section B11-154 (6) Construction/Demolition of the Santa Clara County Code prohibits the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekdays and Saturday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, that would generate a noise disturbance across a residential or commercial real property line. Where technically and economically feasible, construction activities will be conducted in a manner that the maximum noise levels at affected properties will not exceed those listed Table 4.5-5 and Table 4.5-6:

Table 4.5-5 Mobile Equipment – Maximum Noise Levels for Nonscheduled, Intermittent, Short-Term Operation (Less Than Ten Days) of Mobile Equipment

	Single- and Two-Family Dwelling Residential Area	Multifamily Dwelling Residential Area	Commercial Area
Daily, except Sundays and legal holidays 7:00 a.m.–7:00 p.m.	75 dBA L_{max}	80 dBA L_{max}	85 dBA L_{max}
Daily, 7:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	50 dBA L_{max}	55 dBA L_{max}	60 dBA L_{max}

Table 4.5-6 Stationary Equipment – Maximum Noise Levels for Repetitively Scheduled and Relatively Long-Term Operation (Periods of Ten Days or More) of Stationary Equipment

	Single- and Two-Family Dwelling Residential Area	Multifamily Dwelling Residential Area	Commercial Area
Daily, except Sundays and legal holidays 7:00 a.m.–7:00 p.m.	60 dBA L_{max}	65 dBA L_{max}	70 dBA L_{max}
Daily, 7:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	50 dBA L_{max}	55 dBA L_{max}	60 dBA L_{max}

Section B11-156. – Special provisions

Section B11-156 of the Santa Clara County Code establishes special provisions that exempt certain activities. Section B11-156.c states that the provisions of Chapter VII. – Control of Noise and Vibration will not apply to occasional outdoor gatherings, public dances, shows, and sporting and entertainment events, provided the events are conducted pursuant to a permit or license issued by the County relative to the staging of the events. Furthermore, Section B11-156.d.3 provides an exemption from exterior noise standards for construction activities described in Section B11-154(6) because maximum construction-related noise levels have been established separately from the exterior noise levels for receiving land uses.

VIBRATION CRITERIA

CEQA states that the potential for any excessive ground noise and vibration levels must be analyzed; however, it does not define the term “excessive.” Numerous public and private organizations and governing

bodies have provided guidelines to assist in the analysis of ground noise and vibration; however, the federal, state, and local governments have yet to establish specific ground noise and vibration requirements. Caltrans and FTA have published reports addressing the analysis of ground noise and vibration relating to transportation and construction-induced vibration.

With respect to structural damage, Caltrans recommends that a level of 0.2 in/sec PPV not be exceeded for the protection of normal residential buildings, and that 0.1 in/sec PPV not be exceeded for the protection of old or historically significant structures (Caltrans 2013b).

To address the human response to groundborne vibration, FTA has guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines recommend 65 VdB referenced to 1 μ in/sec and based on the RMS velocity amplitude for land uses where low ambient vibration is essential for interior operations (e.g., hospitals, high-tech manufacturing, laboratory facilities); 80 VdB for residential uses and buildings where people normally sleep; and 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, offices) (FTA 2006).

The *Santa Clara County Code of Ordinances*, Section B11-154.7 Vibration, prohibits the operation or permitting the operation of any device that creates a vibrating or quivering effect that: endangers or injures the safety or health of human beings or animals, annoys or disturbs a person of normal sensitivities, or endangers or injures personal or real properties.

4.5.4 Analysis, Impacts, and Mitigation

ANALYSIS METHODOLOGY

To assess potential short-term (construction-related) noise and vibration impacts, sensitive receptors and their relative exposure were identified. Project-generated construction source noise and vibration levels were determined based on methodologies, reference noise levels, and usage factors from FTA's Guide on Transit Noise and Vibration Impact Assessment methodology (FTA 2006). Reference levels are noise and vibration emissions for specific equipment or activity types that are well documented, and the usage thereof is common practice in the field of acoustics. Construction noise sources were identified as likely equipment to be used during project construction. Due to uncertainty in the project construction schedule and phasing, estimation of maximum potential construction-noise levels conservatively assumed that up to two phases could occur simultaneously and that up to 10 pieces of noise generating construction equipment would be in operation simultaneously. Additionally, because construction activities would occur throughout the project site and take place adjacent to existing sensitive land uses, construction-noise levels were estimated from the boundary of the project site nearest to the sensitive receptors. See Appendix C for detailed model inputs and data for the construction equipment noise modeling.

To assess potential long-term (operation-related) noise impacts because of project-generated increases in traffic, modeling was conducted for Monterey Road based on the U.S. Department of Transportation Federal Highway Administration Traffic Noise Model (2004) and project-specific traffic data (Fehr & Peers 2017). The analysis is based on the reference noise levels for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and ground attenuation factors. Note that the modeling conducted does not account for any natural or human-made shielding (e.g., the presence of vegetation, berms, walls, or buildings) and, consequently, represents worst-case noise levels.

To evaluate relative significance, noise and vibration impacts were determined based on comparisons to applicable regulations and guidance provided by federal, state, and/or local agencies.

THRESHOLDS OF SIGNIFICANCE

Based on the Appendix G of the State CEQA Guidelines, the proposed project would result in a significant impact related to noise or vibration if it would:

- ▲ exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards;
 - ▲ short-term exposure of nearby sensitive receptors to increased construction equipment-related noise levels that exceed 75 dBA L_{max} for mobile equipment and 60 dBA L_{max} for stationary equipment during the day (7:00 a.m. to 7:00 p.m.), except all Sundays and legal holidays (Santa Clara County Code of Ordinances, Section B11-154 (6) Construction/Demolition).
 - ▲ long-term exposure of nearby sensitive receptors to increased motor vehicle traffic and operational noise levels that exceed the exterior noise limits of 55 dBA L_{50} and interior noise limits of 45 dBA L_{max} and 45 dBA L_{eq} from 7:00 a.m. to 10:00 p.m. (Santa Clara County Code of Ordinances, Section B11-152, Santa Clara County General Plan) and 45 dBA L_{50} for nighttime noise from 10:00 p.m. to 7:00 a.m.
- exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
 - ▲ ground induced vibration that exceed FTA's maximum acceptable vibration standard of 80 VdB with respect to human response for residential uses (e.g., annoyance, sleep disturbance) (FTA 2006:8-3) at nearby vibration-sensitive land uses.
 - ▲ ground induced vibration that exceed Caltrans' recommended levels of 0.2 in/sec PPV for the protection of normal residential buildings, and 0.1 in/sec PPV for the protection of old or historically significant structures.
- a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (e.g., long-term exposure of existing sensitive receptors to increased project-generated noise levels of 5 dB or more or that exceed applicable allowable levels);
- for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels; or
- for a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels.

Issues or Potential Impacts Not Discussed Further

The project site is within the Airport Influence Area of the San Martin Airport, as described in the South County Airport Comprehensive Land Use Plan (Santa Clara County Airport Land Use Commission 2016). However, as disclosed in Appendix A, Initial Study, it lies more than 0.3 mile outside of the 55 dB CNEL and thus, would not subject people residing or working in the project area to excessive noise levels. The project is not located within the vicinity of a private airstrip. The nearest private airstrip, Frazier Lake Airpark, is located approximately 12 miles south of the project site. The impact would be less than significant with regard to excessive noise levels in proximity to the San Martin Airport and no impact would occur with regard to excessive noise levels in proximity to private airstrips. These issues are not discussed further.

IMPACTS AND MITIGATION MEASURES

Impact 4.5-1: Short-term construction-related noise impacts.

Project construction activities would involve the use of heavy construction equipment that generates noise. Based on the noise modelling conducted, construction activities could result in maximum noise levels of approximately 94 dBA L_{max} at 50 feet. Stationary equipment, such as a generator would typically generate maximum noise levels of 82 dBA at 50 feet. Based on the construction noise modeling, nearby sensitive receptors are located at a distance from the construction activities that mobile source noise levels would not exceed Santa Clara County standards of 75 dBA L_{max} for mobile equipment. However, noise levels of stationary equipment could potentially exceed County standard of 60 dBA L_{max} . This impact would be **potentially significant**. With implementation of mitigation regarding the location of noise-generating stationary equipment, this impact would be **less than significant**.

Short-term construction noise levels in the vicinity of the project site would fluctuate depending on the particular type, number, and duration of usage for the varying equipment. The effects of construction noise largely depend on the type of construction activities occurring on any given day; noise levels generated by those activities; distances to noise sensitive receptors; potential noise attenuating features such as topography, vegetation, and existing structures; and the existing ambient noise environment in the receptor's vicinity. Construction generally occurs in several discrete stages, each phase requiring a specific complement of equipment with varying equipment type, quantity, and intensity. These variations in the operational characteristics of the equipment change the effect they have on the noise environment of the project site and in the surrounding area for the duration of the construction process.

To assess noise levels associated with the various equipment types and operations, construction equipment can be considered to operate in two modes: mobile and stationary. Mobile equipment moves around a construction site performing tasks in a recurring manner (e.g., graders, dozers, pavers), while stationary equipment operates in a fixed location for an extended period of time. Additionally, when construction-related noise levels are being evaluated, activities that occur during the more noise-sensitive evening and nighttime hours are of increased concern because this is when people generally sleep and may be more easily disturbed. The proposed project does not include any nighttime construction, and therefore this analysis is focused on daytime construction activities.

Construction would consist of four phases: rough grading, infrastructure improvements, structure construction, and installation of orchard, other landscaping, and open space improvements. No more than two phases would occur simultaneously. These activities may involve the use of heavy-duty construction equipment that would generate noise. Typical noise levels generated by various types of construction equipment likely to be used are identified in Table 4.5-7. Mobile and stationary on-site equipment such as graders, dozers, excavators, scrapers, other tractors, cranes, forklifts, generator sets, curb equipment, pavers, paving equipment, rollers, welders, and air compressors may be used.

Based on the information provided in Table 4.5-7 and accounting for typical usage factors of individual pieces of equipment and activity types, along with typical attenuation rates, on-site construction-related activities could result in hourly average noise levels of up to 94 dBA L_{max} at 50 feet when all mobile construction equipment are operating simultaneously. Stationary equipment, such as a generator would typically generate a noise level of 82 dBA L_{max} at 50 feet. The nearest sensitive receptors are residential units located 350 feet to the southwest (Residence 1) and to the west (Residence 2), and 400 feet south (Residence 3) of the nearest project site boundaries. See Exhibit 4.5-1. Noise levels at these residences for both mobile and stationary equipment are shown in Table 4.5-8 below. These noise levels account for typical attenuation rates and use the conservative approach of attenuating construction-noise levels from the boundary of the project site nearest to the sensitive receptors.

Table 4.5-7 Noise Emission Levels from Construction Equipment

Equipment Type	Typical Noise Level (dBA) @ 50 feet
Backhoe	80
Concrete Mixer	85
Dozer	85
Front End Loader	80
Paver	89
Roller	85
Scraper	89
Tractor	84
Grader	85

Notes: Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.

Source: FTA 2006

Table 4.5-8 Average Hourly and Maximum Noise Levels at Sensitive Receptors

Sensitive Receptor	Distance from nearest project site boundary	Mobile Equipment	Stationary Equipment
		L _{max}	L _{max}
Residence 1 (southwest)	350 feet	71.7 dBA	60.2 dBA
Residence 2 (west)	350 feet	71.7 dBA	60.2 dBA
Residence 3 (south)	400 feet	70.2 dBA	58.7 dBA

Notes: L_{max}=maximum noise level; dBA=A-weighted decibels

Source: Modeling conducted by Ascent Environmental, Inc. 2017

For construction activities, Section B11-154(6) of the Santa Clara County Code of Ordinances establishes a maximum daytime noise level for mobile equipment in a single- and two-family dwelling residential area of 75 dBA L_{max} and a maximum daytime noise level for stationary equipment in a single- and two-family dwelling residential area of 60 dBA L_{max}. As shown in Table 4.5-8 above, maximum construction noise levels would not exceed established noise standards of 75 dBA L_{max} (mobile equipment) at any of the nearby sensitive receptors. However, as shown in Table 4.5-8, maximum construction noise levels could exceed 60 dBA L_{max} (stationary equipment) at nearby sensitive receptors.

Although the noise levels generated by stationary equipment could exceed the noise standard of 60 dBA L_{max}, this is not likely to occur because of the fact that the use of stationary equipment is typically associated with building construction, and thus, this equipment would likely be located in close proximity to the proposed buildings while under construction. The proposed building (location where a stationary noise source is most likely to be used during construction) nearest to a sensitive receptor is the Maintenance Building which is located approximately 425 feet east of Residence 2. Noise generated by a stationary source at this distance would result in maximum construction noise levels of 58 dBA L_{max} at the nearest sensitive receptor.

However, construction-related stationary source noise could potentially expose nearby sensitive land uses to excessive noise levels if located near the project site boundary. This impact would be **significant**.

Mitigation Measure 4.5-1: Implement stationary-source construction-noise reduction measures.

To minimize stationary-source noise levels during construction activities, all grading and improvement plans shall state that all stationary construction equipment (i.e., generators and air compressors) shall be located at least 25 feet from the western and southern project property lines. The applicant shall ensure that this requirement is implemented by all contractors.

Significance after Mitigation

Implementation of Mitigation Measures 4.5-1 would require that noise-generating stationary equipment be located at a distance from noise-sensitive receptors such that Santa Clara County Code of Ordinances maximum daytime noise level for stationary equipment of 60 dBA L_{max} is not exceeded. This impact would be **less than significant**.

Impact 4.5-2: Short-term construction-related vibration impacts.

Project construction activities would involve the use of heavy construction equipment which may include large dozers. Thus, large dozers would potentially be the greatest source of ground vibration. The closest sensitive receptor is located 400 feet away from the nearest project site boundary. Based on reference ground vibration and noise levels, large dozer activities would not exceed the recommended levels for structural damage or human disturbance at the nearby structures. This impact would be **less than significant**.

Construction activities generate varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increased distance. Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and can cause sleep disturbance or annoyance at high levels. The project would not include the development of any new major stationary sources of ground vibration (e.g., new roadway or highway). Project construction may result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. As shown in Table 4.5-9, pile driving and blasting are the typical construction activities that generate the greatest ground vibration. However, the project would not require blasting or pile driving. Therefore, maximum ground vibration levels would be associated with the potential use of large dozers during construction activities.

Table 4.5-9 Representative Ground Vibration and Noise Levels for Construction Equipment

Equipment	PPV at 25 feet (in/sec) ¹	Approximate L_v (VdB) at 25 feet ²
Impact Pile Driver	1.518	112
Blasting	1.13	109
Sonic Pile Driver	0.734	104
Large Dozer	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Rock Breaker	0.059	83
Jackhammer	0.035	79
Small Dozer	0.003	58

Notes: PPV = peak particle velocity; L_v = the root mean square velocity expressed in vibration decibels (VdB), assuming a crest factor of 4

Source: FTA 2006

According to FTA, vibration levels associated with large dozers are 0.089 in/sec PPV and 87 VdB at 25 feet. Based on FTA's recommended procedure for applying a propagation adjustment to these reference levels, vibration levels from large dozers could exceed Caltrans recommended level of 0.2 in/sec PPV with respect to the structural damage within 15 feet of large dozer activities and could exceed FTA's maximum acceptable level of 80 VdB with respect to human response within 43 feet of large dozer activities. The closest sensitive receptor is located 400 feet away from the nearest project site boundary. Therefore, ground vibration levels from potential large dozer activities would not result in levels that could damage nearby structures or result in human disturbance. Project impacts associated with construction-related ground vibration and vibration noise would be **less than significant**.

Impact 4.5-3: Long-term project-related traffic noise increase.

Traffic generated by the project would not result in a substantial increase (i.e. 5 dB) in traffic noise on Monterey Road. This level of noise increase would not be perceptible to the human ear and, therefore, would not be considered a substantial increase in noise. This impact would be **less than significant**.

Generally, a doubling of a noise source is required to result in an increase of 3 dB, which is perceived as barely noticeable by humans (Egan 2007). Thus, in regard to traffic noise specifically, a noticeable increase in traffic noise could occur with a doubling of the volume of traffic on a roadway.

This noise impact analysis is based on the project-specific traffic study summarized in Section 4.6, "Transportation and Circulation." Operation of the project would be expected to result in a net increase of approximately 104 weekday peak hour vehicles. All vehicles traveling to and from the project site would access the site via Monterey Road. Therefore, the traffic noise analysis focuses primarily on project-related noise increases on Monterey Road.

Based on the traffic analysis conducted for the project, existing weekday peak hour volume for Monterey Road in the project vicinity is 1,595 vehicles. A daily increase of 104 vehicles would not result in a doubling of traffic on Monterey Road and consequently would not result in a substantial increase in traffic noise. This level of project-generated trips would represent a 6.5 percent increase in traffic over existing volumes. Further, according to noise modeling results, the increase in noise would be 0.3 dB (see Appendix C for the detailed modeling results). Therefore, traffic noise generated by project operation would not result in a noticeable noise increase (i.e., 3 dB) and would also not exceed the County's noise-increase threshold of 5 dB. This impact would be **less than significant**.

Impact 4.5-4: Long-term increase in noise levels from on-site sources.

Operational noise sources associated with implementation of the project would include indoor activities (daily prayer, youth Sunday classes, potluck dinners, special events) and outdoor activities (annual youth summer camp, playground activities, parking lot activities), which would occur during daytime and evenings. Amplified outdoor sound and outdoor call to prayer are not proposed. During daytime hours, noise generated by the project would not exceed County daytime exterior noise standards. However, dawn and nighttime prayers would occur before 7:00 a.m. and after 10:00 p.m. respectively; therefore, the County's nighttime noise standard would apply. Project-generated on-site noise associated with parking lot activity could exceed the nighttime noise standard measured at the residential property line. Because the adjacent residential properties have large rear yards, residents would not typically be outside near the property line before 7:00 a.m. and after 10:00 p.m. Also, because the project would not generate noise that would exceed interior noise standards, the project would not result in a substantial increase in ambient noise levels that would adversely affect existing noise-sensitive receptors. However, because the noise level could slightly exceed the County's nighttime exterior noise standard at the residential property line, the impact is considered **potentially significant**. Mitigation Measures 4.5-4 would prohibit parking during nighttime hours in areas where noise associated with the parking lot could result in exceedance of the County's nighttime noise standard at nearby noise sensitive receptors and would result in a **less-than-significant** impact.

Operational noise sources associated with implementation of the project would include indoor activities and events as well as outdoor activities, occurring primarily during the day, but with some prayers beginning at 6:00 a.m. and some extending to 11:00 p.m. Section B11-152 of the Santa Clara County Code of Ordinances establishes exterior noise standards for various receiving land use categories. For lands zoned for one- and two-family residential, the maximum noise level standard for a cumulative period of more than 30 minutes in any hour during nighttime (i.e., 10:00 p.m.–7:00 a.m.) is 45 dBA L_{50} and during the day and evening (i.e., 7:00 a.m.–10:00 p.m.) is 55 dBA L_{50} . This analysis relies on the daytime noise standard for summer camp and playground noise and noise from other outdoor activities; however, because the project includes weekly prayer events that extend outside the County's daytime standards, this analysis uses the nighttime standard of 45 dBA L_{50} for parking lot activity and indoor activity. The Santa Clara County General Plan and Santa Clara County Code of Ordinances establishes daytime interior noise standards of 45 dBA L_{max} and 45 dBA L_{eq} , respectively.

The mosque would be open to members for personal worship at all times. Indoor activities would include daily prayer inside the sanctuary; weekly youth Sunday classes; monthly potluck dinners; and special events such as weddings, funerals, and banquets. Amplified sound would not be allowed at these events; no amplified sound is proposed for the project. Also, no outdoor call to prayer is proposed for the project. Outdoor activities include an annual youth summer camp that would use the camp sites located on the northwestern corner of the site, playground activities, and parking lot activities. Noise associated with indoor and outdoor events are evaluated separately below.

Based on the typical noise levels identified in Table 4.5-1, indoor activities, such as personal worship, would be most similar to library noise levels of 30 dBA L_{max} . Interior noise levels of 30 dB L_{max} would not exceed County exterior noise standards of 55 dBA L_{50} (daytime), 45 dBA L_{50} (nighttime), or interior noise standards of 45 dBA L_{max} for any period of time on the project site and, therefore, would not expose any nearby receiving land uses to noise levels above County standards. Other indoor activities that may generate more noise, such as Sunday classes and special events, could result in noise levels of up to 60 dBA L_{max} , similar to conversational noise levels (National Institute for Occupational Safety and Health 2016). The noise level reduction afforded by common building construction with the windows closed is 25–30 dB (Caltrans 2002). Therefore, assuming the conservative interior-to-exterior reduction of 25 dB, exterior noise levels on the project site associated with the loudest indoor activities would not exceed 35 dBA L_{max} for any period of time, thus not exceeding County exterior noise standards of 55 dBA L_{50} daytime, 45 dBA L_{50} nighttime, and interior noise standards of 45 dBA L_{max} at any off-site receptor.

With regard to outdoor activities, the on-site playground would be used regularly by members of the community, as well as annually by roughly 50 youth summer camp participants. Noise from the playground and summer camp is expected to be similar to an elementary school; therefore, because there is no reference for noise levels at a playground or summer camp, this analysis uses elementary school noise as a conservative analog. An elementary school playground used by 100 students is expected to generate approximately 75 L_{max} at 100 feet (City of Pinole 2010). This means that the loudest instantaneous level of noise measured within one hour is 75 dBA at 100 feet from the source. The proposed playground (see Exhibit 3-3) is located on the eastern portion of the site, 650 feet away from the property line of the nearest sensitive receptor, which is a residence directly west of the project site. The attenuated maximum noise level at this receptor is expected to be 54 dBA L_{max} . The County's exterior noise standard is 55 dBA L_{50} . This noise standard equates to a level of noise that would exceed 55 dBA for 50 percent of a measured hour (30 minutes). Because the proposed playground would include 50 children rather than the elementary school analog's 100 children and would result in an instantaneous maximum noise level that is lower than the County's 55 dBA L_{50} noise standard, this analysis conservatively concludes that the noise generated by the playground would be lower than the County's daytime exterior noise standard. The playground would not operate at night, so the nighttime standard would not apply. In regard to the County's interior noise standards of 45 dBA L_{max} , the noise level reduction afforded by common building construction with the windows closed is 25-30 dB (Caltrans 2002). Therefore, assuming the conservative interior-to-exterior reduction of 25 dB, playground noise levels experienced inside the nearest residence would be 29 dBA L_{max} , thus not exceeding County interior noise standards of 45 dBA L_{max} at any off-site receptor.

The project would include 125 parking spaces in two lots. The west parking lot is located closest to existing sensitive receptors: it is approximately 90 feet from the property line of the nearest sensitive receptor. Noise generated from parking lots is associated with horns honking, engines starting, doors slamming, engines idling, car alarms sounding, and various other sounds associated with moving vehicles. These noise sources are typically short in duration, intermittent throughout the day, and vary as a function of the number of vehicles present throughout the day (i.e. peak hours would result in more noise). Noise associated with proposed parking lots was calculated using FTA's noise and vibration impact methodology for a parking lot. It is anticipated that the proposed parking lot would result in daytime noise levels of 52.6 dBA L_{eq} at 50 feet from the edge of the proposed lot and 47.5 dBA L_{eq} at the property line of the nearest sensitive receptor, 90 feet away. These noise levels would not exceed the County daytime exterior noise standard of 55 dBA L_{50} (assumed to be comparable to the L_{eq}). In regard to the County's nighttime exterior noise standards of 45 dBA L_{eq} , the noise generated by the parking lot could potentially exceed the 45 dBA L_{50} nighttime standard.

Table 4.5-10 Project Noise Levels Compared to County Standards

Noise Source	Noise Level at Nearest Sensitive Receptor	County Standard ¹	Exceeds Standard? (Yes/No)
Indoor noise (daily prayers, potlucks, special events)	<35 dBA L_{max}	45 dBA L_{50} (nighttime standard)	No
Daytime outdoor activities (summer camp, playground, parking lot)	54 dBA L_{max}	55 dBA L_{50} (daytime standard)	No
Nighttime parking lot activities	47.5 dBA L_{eq} ²	45 dBA L_{50} (nighttime standard)	Yes ³

Notes:

¹ In cases where multiple standards apply, the most stringent standard is presented

² L_{eq} is similar to L_{50}

³ The Santa Clara County Code allows noise to exceed the 45-dBA standard by 5 to 20 dB for intermittent noise lasting for a cumulative duration of between 0 and 30 minutes per hour. This analysis conservatively assumes that parking lot noise would be continuous for more than 30 minutes in the evening hours.

Source: Data compiled by Ascent Environmental in 2018

As described above, these sources individually would not exceed applicable Santa Clara County noise standards at the nearest sensitive receptors, except for potential noise generated in parking areas during early morning and late evening prayer times. It should be noted that the Noise Ordinance allows intermittent noise to exceed the noise standard identified. In this case, noise levels up to 65 dBA (+20 dBA over the 45 dBA standard) would be allowed for instantaneous noise events during nighttime hours (car door shutting or engine starting), or noise levels up to 60 dBA (+15 dBA over the 45 dBA standard) for noise events lasting more than 1 minute in a given hour; however, this analysis conservatively assumes a consistent level of parking lot activity in morning and evening hours (before 7:00 a.m. and after 10:00 p.m.), which is assumed to last for a cumulative period of over 30 minutes during these hours. Therefore, no additional allowance to the noise standard is assumed, and the potential nighttime noise level generated in parking areas located at the western edge of the project site could exceed the County's nighttime noise standard identified in the Santa Clara County Code. This impact is considered **potentially significant**.

Mitigation Measure 4.5-4: Install signage to restrict parking in western parking lot.

To prevent exceedance of the County's nighttime noise standard, the applicant shall install parking lot signage that prohibits parking after 10:00 p.m. or before 7:00 a.m. Signage shall be clearly posted at spaces within 120 feet of the western property line. No parking restriction is required for spaces farther than 120 feet from the property line. The applicant shall be responsible for enforcing the parking restriction.

Significance after Mitigation

Implementation of Mitigation Measures 4.5-4 would prohibit parking during nighttime hours in areas where noise associated with the parking lot could result in exceedance of the County's nighttime noise standard at nearby noise sensitive receptors. Prohibiting parking within 120 feet of the residential property line would

reduce the noise level by 2.5 dBA, which brings the noise level to the County's 45 dBA L₅₀ nighttime noise standard. This impact would be **less than significant**.

CUMULATIVE IMPACTS

Impact 4.5-5: Contribution to cumulative short-term construction generated noise.

Less-than-considerable contribution after mitigation. It is unlikely that other nearby construction activities would cumulatively combine with the project, and project-generated construction noise is within county noise standards. Thus, the project's short-term construction-generated noise would not result in a substantial contribution such that a new significant cumulative construction noise impacts would result. The project's contribution to the short-term construction noise impact would be **less than considerable**.

Noise levels are not directly additive and attenuate rapidly with distance, and the nature of construction noise effects are such that project-related construction activities would have to occur simultaneously and in close proximity to those of other projects for a cumulative effect to occur. Therefore, the analysis of cumulative noise impacts is geographically limited to the projects listed in Table 4-1 (see Chapter 4 of this Draft EIR) that are approximately 1,000 feet from the project site. Project located beyond this distance that are consistent with applicable noise standards would not contribute to increases in ambient noise levels at the nearest sensitive receptors to the proposed project.

As identified in Table 4-1, an RV park is proposed directly south of, and adjacent to the project site, and construction of the RV park could potentially occur concurrently with construction at the project site. However, the Santa Clara County Code of Ordinances construction noise standards are expressed in L_{max} levels, or the highest instantaneous noise level. Therefore, it is unlikely that multiple pieces of construction equipment (mobile or stationary) from the two projects would emit their highest noise level at the exact same instant and in close proximity to one another, which would be required for the proposed Cordoba Center's construction activities to cumulatively combine with the adjacent proposed RV park. In the worst-case scenario, assuming both projects use similar construction equipment, equipment occurring in the same location at the same time (a doubling of the noise source) would result in a 3 dBA increase in noise at the nearest sensitive receptor located 350 away, which would be 74.5 dBA L_{max} (as discussed above, the noise generated by the construction of the project, alone, would be 71.5 dBA L_{max}) and, even under these unlikely worst-case conditions, would be below the County's threshold of 75 dBA L_{max}.

In addition, a segment of HST is proposed near the existing UPRR tracks, east of Monterey Road. The specific location of the rails may be nearer or farther from the site, depending on which alignment alternative is selected, but the closest HST alternative would be located over 1,400 feet east of the nearest sensitive receptor. This distance greatly reduces the potential for the HST construction noise to combine with the project construction in a manner that would result in cumulative noise impacts. Also, the HST is a long-term project. The San Jose to Gilroy segment is currently scheduled for 2027 operation with approval (Record of Decision) not anticipated until 2019 (California High Speed Rail Authority 2018). Construction of the Cordoba Center project is estimated to begin in 2018 with the noisiest phase of project construction (site grading and preparation) scheduled to occur first. Therefore, construction of HST would not likely occur in the project vicinity at the same time as the proposed project. Even if construction did occur simultaneously, as discussed above regarding the RV park construction, it is unlikely that multiple pieces of construction equipment (mobile or stationary) from the two projects would emit their highest noise level at the exact same instant and in close proximity to one another. Therefore, the construction activities would not combine in a way that would exceed County standards.

As detailed under Impact 4.5-1, following implementation of Mitigation Measure 4.5-1, short-term construction noise generated by the proposed project would not exceed the thresholds defined in the Santa Clara County Code of Ordinances, and thus, would be a less-than-significant impact. Therefore, because no other nearby construction activities would cumulatively combine with the project, and project-generated

construction noise is compliant with county noise standards, the project's short-term construction-generated noise would not result in a substantial contribution such that a new significant cumulative construction noise impacts would result. The proposed project's contribution to cumulative construction noise impacts would be **less than considerable**.

Impact 4.4-6: Contribution to cumulative long-term operational noise levels.

Less-than-considerable contribution. The site for a proposed RV park is located adjacent to the project site. However, similar to the proposed Cordoba Center and other residential uses nearby, the proposed recreational/residential use is not typically a high noise generating use (the RV Park would operate between 8:00 a.m. and 7:00 p.m., with generator use between 10:00 a.m. to 8:00 p.m. and would be required to maintain quiet hours after 10:00 p.m. until 7:00 a.m.), and noise from operation of both of these low-noise-generating projects simultaneously would not combine in a manner that would exceed noise thresholds. A segment of HST is also located near the site, near Monterey Road. Future project-related traffic noise levels would not result in a substantial increase in noise levels (i.e., less than 1 dB) on Monterey Road. Furthermore, the employee and visitor trips added to affected roadways would occur during typical business hours of the day when people are less likely to be disturbed by traffic noise. Therefore, noise generated from project operation would not result in a considerable contribution to a significant cumulative noise impact; the impact would be **less than considerable**.

Cumulative noise levels could be affected by additional buildout of surrounding land uses and increases in vehicular traffic on affected roadways. As discussed above, noise and vibration impacts are highly localized and noise generated by projects further than 1,000 feet from the project site is generally not expected contribute to increases in ambient noise levels at the nearest sensitive receptors to the proposed project. As shown in Table 4-1, most of the probable future projects in the region are relatively small and only the proposed RV park and the planned HST alignment are located in close proximity to the project site. The proposed RV park site is located adjacent to the project site's southern border and the proposed HST alignment is identified to be located east of Monterey Road (the specific proximity depends on the specific alignment alternative selected).

Long-term operational noise sources associated with implementation of the project would include indoor activities (daily prayer, youth Sunday classes, potluck dinners, special events) and outdoor activities (annual youth summer camp, playground activities, parking lot activities). However, as discussed above, project-generated long-term operational noise levels would not exceed applicable noise standards and, therefore, would not result in a substantial increase in ambient noise levels at nearby existing noise-sensitive receptors. The proposed RV park is a residential/recreational use, which is not typically a substantial noise-generating use. The proposed RV park would operate between the hours of 8:00 a.m. and 7:00 p.m., with generator use between 10:00 a.m. to 8:00 p.m. The County would require quiet hours after 10:00 p.m. until 7:00 a.m., consistent with the County's noise ordinance. Therefore, the proposed project, which is a low-noise-generating use, would not cumulatively combine with long-term operational noise from the proposed RV park, which is also a low-noise-generating use, in a manner that would exceed County noise standards.

The HST would be louder than the proposed RV park (over 80 dBA L_{max} at 100 feet) (HSR 2016); however, the duration of a passing train would be brief—much briefer than a freight train—because of the higher speed and relatively short train length. For additional perspective, the HST would be quieter traveling at 125 mph than a commuter train traveling at 79 mph. The two identified HST alignments (See Exhibit 4-1) are both located over 1,400 feet from the sensitive receptors closest to the proposed project. At this distance, noise from the HST (assuming 80 dBA L_{max} at 100 feet) would attenuate to approximately 62 dBA L_{max} . Thus, in the future cumulative scenario, noise from the HST would be the dominant noise source in the vicinity of existing receptors. Due to the logarithmic nature of combining noise levels, it takes a doubling of a noise source to increase noise by 3 dBA (which is the point that humans can perceive a change in loudness). Further, when combining a louder noise source (i.e., 62 dBA L_{max} from HST) with a lower noise level from the parking lot (e.g., 54 dBA L_{max} from daytime activities, 47.5 dBA L_{max} from nighttime parking activities) the lower noise levels (i.e., project-generated noise) contribute far less to the overall combined noise levels. For example,

combining the HST noise of 64 dBA L_{max} to the daytime activity noise level of 54 dBA L_{max} results in 64.4 dBA, an increase of less than 1 dBA, which is an imperceptible change.

Also, similar to the cumulative construction noise discussion (See Impact 4.4-5, above), the short duration and relative infrequency of a “train passing event” would not typically occur simultaneously with peak project noise events and therefore would not typically combine to exceed the County’s exterior noise standards. Therefore, because of the short duration of HST-generated noise, the distance to the nearest sensitive receptors to the project site, and the unlikelihood of peak noise occurring simultaneously, the proposed project would not likely combine with HST-generated noise such that County standards would be exceeded. Therefore, the project in combination with other projects would not result in a considerable contribution to a significant cumulative noise impact.

Future project-related traffic noise levels were modeled based on the U.S. Department of Transportation Federal Highway Administration Traffic Noise Model (2004) and project-specific traffic data (Fehr & Peers 2017). As shown by the modeling, traffic noise levels would not result in a substantial increase in noise levels (i.e., less than 1 dB) on Monterey Road. A 3-dB increase would be an audible change. At less than 1 dB, noise increases would not be noticeable. Furthermore, the employee and visitor trips added to affected roadways would occur during typical business hours of the day when people are less likely to be disturbed by traffic noise. Therefore, noise generated from project operation would not result in a considerable contribution to a significant cumulative noise impact. The project’s contribution would be **less than considerable**.

4.6 TRANSPORTATION AND CIRCULATION

4.6.1 Introduction

This section describes the existing transportation system in the vicinity of the project site and evaluates what effect implementation of the Cordoba Center project could have on the system. Roadway, transit, bicycle, and pedestrian components of the overall transportation system are included in the analysis. Impacts are evaluated under near-term (present-day) conditions and cumulative (year 2036) conditions.

4.6.2 Environmental Setting

AREA ROADWAYS AND INTERSECTIONS

Traffic operations have been quantified through the determination of level of service (LOS). LOS is a qualitative measure of traffic operating conditions, whereby a letter grade “A” through “F” is assigned to an intersection or roadway segment, representing progressively worsening traffic operations (Table 4.6-1).

Table 4.6-1 Level of Service Definitions

Level of Service	Unsignalized Intersection	Roadway (Daily)
“A”	Little or no delay Ave Delay ≤ 10 sec/veh	Completely free flow.
“B”	Short traffic delays Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
“C”	Average traffic delays Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
“D”	Long traffic delays Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
“E”	Very long traffic delays, failure, extreme congestion Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
“F”	Intersection often blocked by external causes Delay > 50 sec/veh	Forced flow, breakdown.

Source: Transportation Research Board 2010

Monterey Road

Monterey Road is a four-lane rural highway, with a center median and a posted speed limit of 50 miles per hour (mph) at the proposed project site. A center turn lane within the median, at some locations along Monterey Road depending on its curvature, allows for turns in and out of existing private access driveways at the project site and north of the project site. A left turn lane at California Avenue allows north bound traffic on Monterey Road to turn onto this street. The highway can accommodate up to 3,600 vehicles per hour with operations at LOS B, a good operating level. During the weekday peak hour, the current traffic volume on Monterey Road is 1,595 vehicles (Fehr & Peers 2017).

Intersections

The nearest intersections to the project site are the intersection of Monterey Road and East Middle Avenue to the north, and Monterey Road and California Avenue to the south. East Middle Avenue is approximately 2 miles long. It begins at Foothill Avenue on the east and crosses over U.S. Highway 101 (U.S. 101) before terminating

at Monterey Road. At this intersection, East Middle Avenue is a rural roadway without shoulder improvements and one lane in each direction. Traffic turning north or south onto Monterey Road is stop controlled.

California Avenue is an east-west trending rural roadway that spans the roughly 0.8 mile between Santa Teresa Boulevard and Monterey Road. Like East Middle Avenue, California Avenue is a rural roadway without shoulder improvements and one lane in each direction. Traffic turning north or south onto Monterey Road is stop controlled.

Freeway Facilities

U.S. 101 in Santa Clara County extends 52 miles from the San Benito to San Mateo county lines, providing north and south gateways into Silicon Valley. This stretch of highway, which extends the length of the West Coast, serves as an important trade corridor between the Central Valley, Central Coast, and the San Francisco Bay Area. The highway also connects commuters to technology and professional service industries in Santa Clara County (Santa Clara Valley Transportation Authority [VTA] 2017). U.S. 101 is located 0.7 mile east of the project site. From U.S. 101, the project site can be accessed by taking the East San Martin Avenue exit and traveling north on Monterey Road.

AIRPORTS

The San Martin Airport is a general aviation airport with one runway. Located at 13030 Murphy Avenue in San Martin, the airport is approximately 1 mile southeast of the project site. The project site is within the *South County Airport Comprehensive Land Use Plan* (Santa Clara County Airport Land Use Commission 2016).

TRANSIT AND BICYCLE FACILITIES

VTA provides public transit service to Santa Clara County including the South County communities of Morgan Hill, San Martin, and Gilroy. Santa Clara VTA provides bus, light rail, and paratransit services. The project site is located along Santa Clara VTA local bus line 68, with an existing bus stop on both sides of Monterey Road at California Avenue, which is about 600 feet south of the project site. There is also a stop near the intersection of Monterey Road and San Martin Avenue, which is approximately 0.75 mile north of the nearest CalTrain Station. There are no designated bicycle lanes on Monterey Road; therefore, bicycle access is provided through lane sharing.

RAIL FACILITIES

Existing Union Pacific Railroad tracks are located east of Monterey Road, approximately 150 feet from the project site boundary.

4.6.3 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to transportation and circulation are applicable to the Cordoba Center Project.

STATE

Senate Bill 743

Senate Bill 743 (SB 743), which became effective September 2013, initiated reforms to the California Environmental Quality Act (CEQA) Guidelines to establish new criteria for determining the significance of transportation impacts that “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” Specifically, SB 743 directs the

Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency for certification and adoption proposed changes to the CEQA Guidelines to replace automobile delay—as described solely by LOS or similar measures of vehicular capacity or traffic congestion—with vehicle miles traveled (VMT) as the recommended metric for determining the significance of transportation impacts.

A draft of the proposed revisions to the State CEQA Guidelines was published and circulated by OPR for public comment on January 20, 2016. A subsequent draft was issued in November of 2017. For the revised guidelines to take effect, the Natural Resources Agency will have to use a formal rulemaking process to adopt the proposed changes pursuant to the Administrative Procedures Act.

To comply with SB 743, OPR has proposed to add to the CEQA Guidelines Section 15064.3, providing that in most cases VMT is the most appropriate measure of transportation impacts. Section 15064.3(c) [Applicability] states that the provisions apply prospectively as described in section 15007.¹ A lead agency may elect to be governed by the provisions of this section immediately. Beginning on January 1, 2020, the provisions of this section shall apply statewide. It should be noted that the County of Santa Clara has yet to adopt any formal changes in its CEQA review policies and procedures in response to SB 743 or OPR's proposed CEQA Guidelines.

A discussion of vehicle miles traveled in relation to the proposed project is included in the transportation analysis memorandum (pages 9-11) prepared by Fehr and Peers (Appendix E). That VMT discussion is provided for informational purposes only.

California High Speed Rail Authority

It should be noted that the California High Speed Rail Authority has identified high speed train (HST) alignment alternatives in the immediate project vicinity.

LOCAL

Santa Clara Valley Transportation Authority Congestion Management Program

VTA serves as the Congestion Management Agency (CMA) for Santa Clara County. California State statute requires CMAs to develop, adopt, and update a Congestion Management Program (CMP) every 2 years. The most recent CMP was published in 2015. The intent of the CMP legislation is to develop a comprehensive transportation improvement program among local jurisdictions that will reduce traffic congestion and improve land use decision-making and air quality. CMAs are also required to conduct analysis of all CMP roadways every two years to ensure Member Agencies—the cities, towns, and county—are developing in a manner consistent with the CMP standard of LOS E. VTA prepares an annual Monitoring and Conformance Report which documents the CMP conformance findings.

Santa Clara County General Plan

The Santa Clara County General Plan includes transportation policies specific to rural unincorporated areas. The policies contained in the Rural Unincorporated Area Transportation Chapter focus primarily on conditions and opportunities that are unique to rural areas but share the same overall objectives as the Countywide Transportation Chapter. The following policy may be applicable to consideration of the Cordoba Center project.

¹ Amendments to the Guidelines apply prospectively only. New requirements in amendments will apply to steps in the CEQA process not yet undertaken by the date when agencies must comply with the amendments [§15007(b)]. If a document meets the content requirements in effect when the document is sent out for public review, the document shall not need to be revised to conform to any new content requirements in Guideline amendments taking effect before the document is finally approved [§15007(c)].

- ▲ **Policy R-TR 11:** New development which would significantly impact private or public roads, should be allowed only when safety hazards and roadway deterioration will be mitigated to a less than significant level.

County of Santa Clara Roads and Airports Department

The County Department of Roads and Airports (Department of Roads and Airports) operates and maintains the County's expressways and unincorporated roadway network, including Monterey Road. The Department of Roads and Airports is responsible for reviewing safe access and operations for all projects and issues permits for work within the County's road right-of-way, special events taking place on County roads, removal of trees within the right-of-way, parking in specific residential areas, and oversize/overweight vehicles.

4.6.4 Analysis, Impacts, and Mitigation

The LOS analysis provided herein is based on a transportation and traffic analysis conducted by Fehr and Peers in 2017 (Appendix E). Existing volumes on Monterey Road adjacent to the project site were obtained from traffic counts conducted on Saturday, February 11 through Thursday, February 16, 2017. These counts were conducted for the entire 24-hour time period for each day to capture the traffic patterns during a typical weekday, Saturday, and Sunday, including during the a.m. and p.m. peak hours. The counts were conducted during good weather (no rain) and did not coincide with any national holidays to help ensure the traffic counts are representative of normal traffic operating conditions.

All of the project traffic would use Monterey Road to access the site; therefore, it was selected as the count location. Other roads in the area, such as California Avenue, Santa Teresa Avenue, and Watsonville Road would only be used by a small proportion of the attendees, including those coming from Watsonville or west Gilroy.

LEVEL OF SERVICE ANALYSIS METHODOLOGY

When looking at traffic volumes, analysts study the time periods when traffic volumes are highest, known as the "peak hours." Two kinds of peak hours were used in this analysis: peak hours of adjacent streets and peak hours of the generator (land use). The weekday peak hours of the adjacent streets generally correspond with the morning and evening commute periods, also called the a.m. peak hour and p.m. peak hour. These peak hours usually fall between 7:00 a.m. and 9:00 a.m., and 4:00 p.m. and 6:00 p.m. The second type of peak hour used in this analysis is the Peak Hour of Generator. This corresponds to the hour when the proposed project reaches its highest traffic generation. For the proposed project, this time would correspond to right before and after the midday Jumma Prayers on Fridays, which are the times when the highest number of worshippers would be expected to regularly visit the project (see Table 3-2 in the Chapter 3, "Project Description").

Trip generation estimates were prepared for the weekday daily, a.m. peak hour, p.m. peak hour, and Peak Hour of Generator periods as shown in Table 4.6-2. The estimates are based on rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition) and projected attendance levels for the various services and events at the mosque (see Chapter 3, "Project Description"). Since the Cordoba Center would include a variety of land uses, separate estimates were produced for each use. Some of the uses were expected to generate no additional trips by themselves, including the Community Building, and the Playfield and Playground.

The Community Building would be used to serve food and hold receptions before and after events at the mosque. Because Muslim tradition restricts food from the worship area, a separate building is needed. Reception attendees would walk from the mosque to the Community Building. Therefore, trips for the Community Building (and Playfield and Playground) are considered internal trips (i.e., trips that would occur on-site) and would not create additional vehicular trips on the surrounding roadways.

Table 4.6-2 Weekday Trip Generation Estimates¹

Proposed Land Use	ITE Land Use	ITE Land Use Code	Size	Unit	Daily Trips ³	A.M. Peak Hour			P.M. Peak Hour			Peak Hour of Generator		
						In	Out	Total	In	Out	Total	In	Out	Total
Mosque ²	Mosque	562	8,938	Square Feet	1,120	8	7	15	66	32	98	157	7	164
Cemetery	Cemetery	566	3.5	Acres	17	1	0	1	1	2	3	5	1	6
Maintenance Building	Utilities ⁴	170	2,500	Square Feet	4	1	1	2	1	1	2	n/a	n/a	n/a
Caretaker's Dwelling	Single-Family Detached Housing	210	1	Dwelling Units	10	0	1	1	1	0	1	1	0	1
Total Trips					1,151	10	9	19	69	35	104	163	8	171

Notes:

- Based on average Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition) rates.
- Trips for the Community Building and playground are considered as internal trips (trips that would occur on site) and would not create additional vehicular trips to the surrounding roadways. Because the one-week youth summer camps would be held for a maximum of nine weeks during the summer, and dropoffs would only occur at the start of the week during non-peak hours, these activities are considered special events and therefore are not included in this table.
- Daily trip rate for mosque land use is not included in the ITE Trip Generation Manual, and published research is not readily available. 70 percent of the 800 maximum total daily attendees (presented in Table 3-2 of the project description) are assumed to attend the mosque, creating two daily trips per attendee (one inbound one outbound). This assumes that some parishioners would attend multiple services without leaving the site in between and some carpooling or use of public transit would occur.
- ITE 9th Edition lacks directional split information for the 'Utilities' land use for the a.m. peak hour, as well as 'peak hour of generator' and 'daily' trip rates. A 50/50 inbound/outbound split was assumed. Daily trips equals the sum of a.m. peak hour trips, p.m. peak hours trips, and Peak Hour of Generator Trips (which occurs in the morning).

Source: Fehr & Peers 2017

The a.m. peak hour for a mosque is from 6:00 a.m. to 7:00 a.m. during the dawn Fajr Prayers. This corresponds with the existing a.m. peak hour on Monterey Road (as determined from traffic counts collected by Fehr & Peers). The evening peak hour for a mosque is generally from 7:30 p.m. to 8:30 p.m., within the sunset Maghrib Prayer and night Isha Prayer time periods. Although this is later than the observed p.m. peak hour for Monterey Road, trip estimates for this time period were used to reflect the p.m. peak hour. (Mosque-generated traffic during the Monterey Road p.m. peak hour would be lower, and therefore Table 4.6-2 represents conservative p.m. peak hour trip estimates.)

For roadways, operation at or above LOS E is considered acceptable. Neither the County of Santa Clara nor Caltrans have standards to evaluate intersection LOS for un-signalized intersections. Therefore, LOS E is also used as a threshold for the project driveway, which would function as an un-signalized intersection.

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, the project would have a significant adverse effect related to transportation and circulation if it would:

- ▲ conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- ▲ conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;

- ▲ result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- ▲ substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- ▲ result in inadequate emergency access; or
- ▲ conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Issues or Potential Impacts Not Discussed Further

The issue of project-related impacts to air traffic patterns is addressed in the Initial Study, which is included as Appendix A of this Draft EIR. The Initial Study concluded that there would be no impact related to this issue. This impact is not discussed further in the Draft EIR. Please see Appendix A for more details.

IMPACTS AND MITIGATION MEASURES

Impact 4.6-1: Conflict with an applicable plan, ordinance, policy, or program; substantially increase hazards because of a design feature or incompatible use; or result in inadequate emergency service during construction.

Traffic generated during construction of the Cordoba Center would be attributable to delivery trucks and construction workers' trips to and from the site. These trips would be temporary and would occur over a roughly 4-year period. All roadways and intersections affected by construction traffic are operating at acceptable LOS. This impact would be **potentially significant**. With implementation of the recommended mitigation measures, this impact would be **less than significant**.

Project construction is anticipated to last 4 years. During construction of the Cordoba Center, there would be a temporary increase in construction-related traffic from soil hauling, deliveries of materials, and construction workers traveling to and from the project site. The construction labor force would fluctuate depending on the phase of work but is expected to range from 7 to 61 workers. This level of traffic increase because of construction workers is less than the peak-hour traffic generated by the operation of the project (discussed further below). Additionally, approximately 70 truck trips total would be required to haul the 705 cubic yards of excess excavated material during the grading phase. Approximately 48 truck trips per day would access the site for delivery of materials. All construction traffic would access the site from the entrance directly off Monterey Road. Construction truck trips would disperse from Monterey Road depending upon the direction the vehicle is traveling. Therefore, increases in construction traffic on other area roadways would be less than the increase on Monterey Road.

Monterey Road can accommodate 3,600 vehicles per hour at a LOS B. The current traffic volume on Monterey Road is 1,595 vehicles during the weekday p.m. peak hour. Conservatively, assuming that all 61 workers arrive and depart the site in personal vehicles during the peak hour, this would result in 1,656 vehicles on Monterey Road. Delivery of materials is not generally anticipated during peak hours; however, assuming all haul truck trips and construction worker commute traffic, traffic volumes would not result in operation of Monterey Road below LOS B. Therefore, the addition of construction traffic would not substantially degrade the traffic conditions. Construction traffic impacts would be localized and temporary, and sufficient staging area would be available on-site to accommodate construction without lane closures or off-site vehicle parking. However, because construction vehicle traffic will be entering and exiting the project site along Monterey Road, a high-speed arterial with existing curvature and limited sight-distance north of the project site, there is a potential for causing unsafe conditions during the construction period. Hence, this impact would be **potentially significant**.

Mitigation Measure 4.6-1: Construction traffic control plan.

Prior to building/and grading permit approval, the applicant shall submit to the Department of Roads and Airports a construction traffic control plan that shall:

- ▲ restrict all ingress/egress at the construction entrance to right-in and right-out turns only;
- ▲ provide for the appropriate control measures, including barricades, warning signs, speed control devices, flaggers, and other measures to mitigate potential traffic hazards; and
- ▲ ensure coordination with emergency response providers to provide sufficient emergency response access for the surrounding area.

Significance after Mitigation

Implementation of Mitigation Measure 4.6-1 would require the applicant to submit and the County to approve a construction traffic control plan that would reduce potential short-term traffic impacts associated with project construction by controlling ingress and egress, providing traffic control measures, and requiring coordination with emergency response providers. This impact would be **less than significant**.

Impact 4.6-2: Conflict with an applicable plan, ordinance, policy, or program during operation.

Monterey Road would operate at LOS B with the addition of traffic generated by the Cordoba Center. Based on the limited effects on LOS on Monterey Road at the project driveway, the project would be unlikely to generate traffic volumes warranting signalization of nearby intersections. The project would have a **less-than-significant** impact to the LOS of the surrounding roadway system.

The proposed project would generate vehicle trips from daily and weekly religious events (prayers and youth Sunday classes) as well as less frequent social and community events (banquets weddings, picnics), which would occur at most once a month and in most cases only one to four times per year. The timing, frequency, and duration of these activities are described in Table 3-2 in Chapter 3, "Project Description". In addition, because the one-week youth summer camps would be held for a maximum of nine weeks during the summer, and dropoffs would only occur at the start of the week during non-peak hours, these activities are also considered special events. Therefore, for purposes of assessing operational impacts to existing and cumulative roadway levels of service, the following analysis focuses on daily events, particularly where the timing coincides with the morning or evening peak hour on local roadways. As the social and community events will generally not occur during weekday peak hours, these events would not have the potential to cause level of service impacts.

On a typical weekday, the Cordoba Center would generate approximately 1,151 daily vehicle trips, with 19 occurring during the a.m. peak hour and 104 during the p.m. peak hour. The addition of 104 vehicles during the p.m. peak hour would result in a total volume of 1,699 vehicles, much lower than the LOS B capacity (3,600 vehicles for a four-lane roadway). Under cumulative conditions with project traffic, Monterey Road operates with a.m. peak-hour volume of 2,427 vehicles and a p.m. peak-hour volume of 2,084 vehicles, both of which are LOS B or better. Safety impacts associated with operation of the proposed project driveway are evaluated under Impact 3.6-3 below.

The project would result in less pronounced effects on existing un-signalized intersections in the project vicinity because the quantity of cars leaving the project would be divided by those heading north and south on Monterey Road. Based on the limited effects on LOS on Monterey Road at the project driveway, the project would be unlikely to generate traffic volumes warranting signalization of nearby intersections. The project would have a **less-than-significant** impact to the LOS of the surrounding roadway system.

Impact 4.6-3: Substantially increase hazards because of a design feature or incompatible use, or result in inadequate emergency access during operation.

The County Department of Roads and Airports reviewed the proposed site plan and determined that access improvements are needed to ensure adequate line of sight, to maintain flow of traffic and prevent traffic hazards associated with vehicles accessing and leaving the site. Without implementation of access and roadway improvements, the project would result in a **potentially significant** impact. With implementation of the recommended mitigation measures during the final design process, this impact would be **less than significant**.

As shown on Exhibit 4.6-1, the project would have access to Monterey Road via one driveway. However, Monterey Road is a high-speed highway (50 mph speed limit), and the Department of Roads and Airports, which owns and operates Monterey Road, has determined that options for vehicle ingress and egress at the proposed driveway location are limited as follows²:

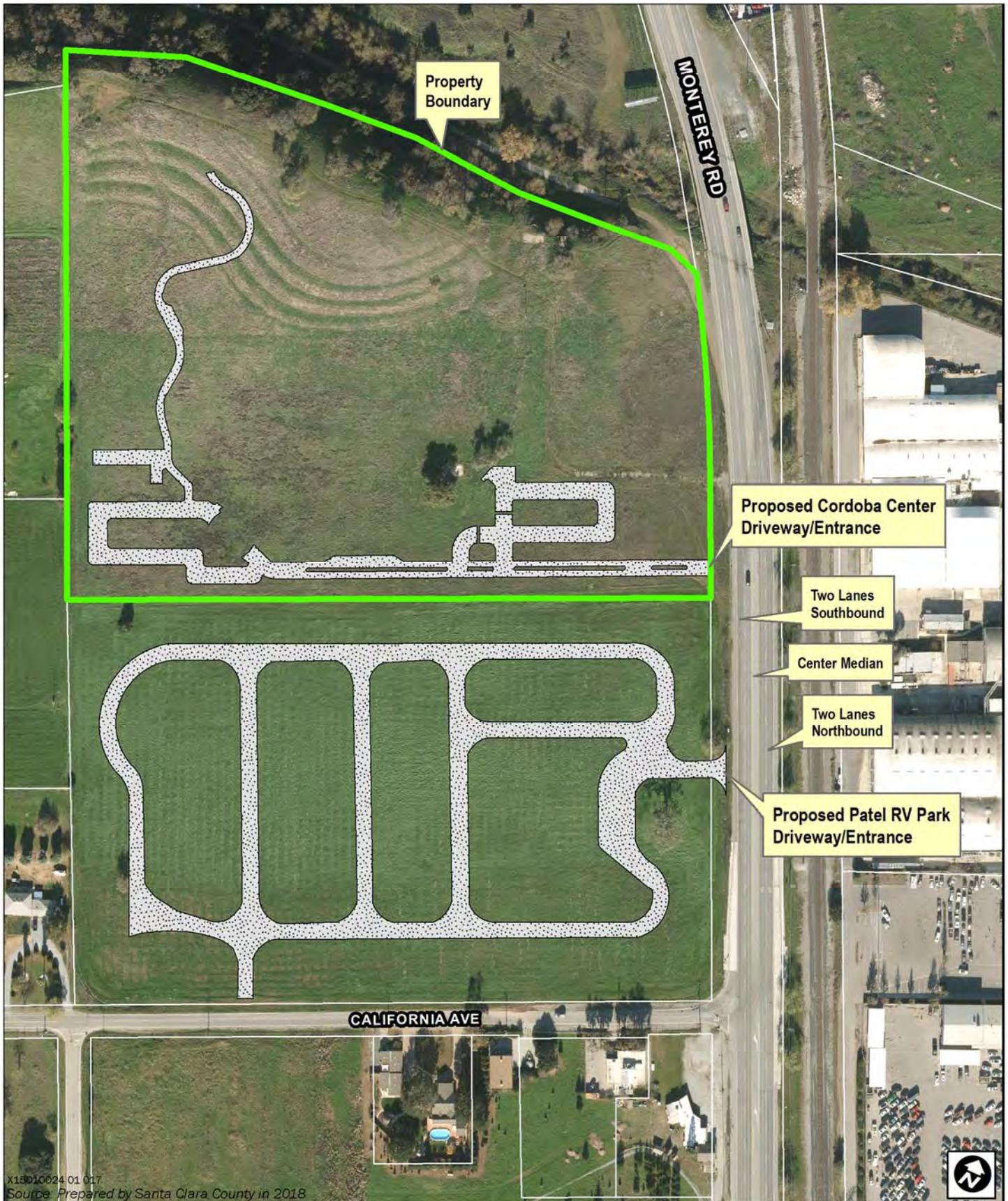
- ▲ The existing median is inadequate to support northbound vehicles to turn left at the proposed driveway location. In addition, left turns out of the project driveway cannot be made safely due to the curvature of the road and its significant width.
- ▲ Right turns into the project driveway by southbound traffic can be accommodated; however, deceleration in the right-hand travel lane could impede following vehicles traveling at the speed limit.
- ▲ Right turns from the project site could be accommodated. However, vehicles turning right from the proposed driveway would enter the travel lane at a lower speed than southbound vehicles moving at posted or higher speeds. This situation could potentially be exacerbated if drivers are unable to assess when it is safe to exit the site as a result of inadequate sight distance of oncoming traffic or because of obstructions to visibility, due to required landscaping.
- ▲ Northbound vehicles, when turning right onto Monterey Road, could potentially make a U-turn at California Avenue to travel north if a U-turn pocket is created out of the existing median. While there is adequate room to accommodate a U-turn pocket at California Avenue for north bound traffic, the length of this lane has not been evaluated.

As noted above, right turns into and out of the project driveway could be accommodated. However, southbound vehicles slowing on Monterey Road to turn right into the site may impede the speed of other vehicles in the same travel lane. If an arriving vehicle slows too abruptly, a temporary slowing of the travel lane could occur and may create a traffic hazard. A deceleration lane would allow southbound traffic to slow down prior to turning right into the project driveway without impeding southbound traffic in the travel lanes.

Southbound traffic could also be impeded by vehicles turning right out of the project driveway, particularly if there are obstructions or inadequate sight distance (the distance that a motorist should be able to see up an approaching travel lane to determine when they can safely turn). Fehr and Peers estimated sight distance for Monterey Road at 430 feet based on roads with travel speeds of 50 mph, which describes Monterey Road at the project site.³ The existing sight distance from the approximate location of the proposed project driveway is 500 feet, which would be sufficient to allow motorists to detect and respond to another car. However, sight distance has not been evaluated under the more conservative assumption of the design speed for Monterey Road. In addition, substantial landscaping is proposed for providing visual screening of the project's buildings. If project landscaping were placed close enough to Monterey Road to limit views of oncoming traffic on the road, it could result in a traffic hazard when vehicles leave the site. However, the Department of Roads and Airports has determined that an acceleration lane south of the project driveway would allow vehicles to safely turn right because they would not have to enter the travel lane until they are traveling at or near the speed limit.

² Memorandum on Cordoba Center, Department of Roads and Airports, March 14, 2018

³ California Department of Transportation Highway Design Manual, Table 201.1, Sight Distance Standards



X15010624 01 017
 Source: Prepared by Santa Clara County in 2018

Exhibit 4.6-1 Vehicle Access and Driveway Configuration (Project and Adjacent RV Park)



As noted above, right turns from the project site would be allowed, and northbound vehicles could potentially make a U-turn at California Avenue to travel north if a U-turn pocket is created out of the existing median. The linear extent of the existing median between the proposed project driveway and California Avenue is more than 600 feet; however, a queuing analysis would be required to determine the length of the left turn pocket needed to accommodate the number of northbound vehicles exiting the project site during peak traffic flows.

The project's access driveway and internal roadways would be designed to County standards (including width and turning radius requirements for safe access by emergency vehicles). This would avoid the potential for the driveway to impede emergency access. However, based on a review of the proposed project's conceptual plans, traffic safety hazards may be associated with project site conditions that have not yet undergone detailed design.

For all the reasons discussed above, operation of the proposed project could result in a **potentially significant** traffic hazard impact, and mitigation is required.

Mitigation Measure 4.6-3: Traffic safety improvements to site plans

Prior to building and grading permit approval, the following amendments shall be made to the final designs of the project and approved by the County Department of Roads and Airports:

- ▲ The project applicant shall demonstrate that landscaping, as detailed on landscape plans for County Planning Department approval, does not encroach into the sight distance triangle (a triangle formed between the location where the driver makes the decision to exit the driveway [decision point], the location of the approaching vehicle on Monterey Road, and the location where the two vehicles would intersect).
- ▲ The project applicant shall construct a deceleration lane on the southbound side of Monterey Road leading to the project driveway.
- ▲ The project applicant shall construct an acceleration lane on the southbound side Monterey Road leading from project driveway.
- ▲ The project applicant shall submit a queuing analysis to determine the length of the left turn pocket at California Avenue needed to accommodate the number of northbound vehicles exiting the project site during peak hours. The applicant shall construct this improvement.
- ▲ A stop sign shall be required where the driveway intersects with Monterey Road.

Significance after Mitigation

Implementation of Mitigation Measure 4.6-3 would avoid risks of traffic hazards that are conceivable based on current concept plans. At the project driveway, installing landscaping with an appropriate setback would avoid interfering with the existing sight triangle, so driver response time would be adequate and potential hazards to motorists would be avoided. Adding a deceleration lane for southbound traffic turning into the site would also avoid a potential traffic hazard caused by vehicles slowing abruptly to enter the project. This deceleration lane would allow vehicles to transition from the southbound through traffic travel lanes to a turning lane and slow safely in preparation for a right turn into the project driveway. This reduces the chance of southbound through-moving vehicles needing to slow and queue behind turning vehicles. Similarly, an acceleration lane would allow exiting traffic to merge safely with the oncoming southbound traffic. Adding an adequate left turn pocket at California Avenue would allow U-turns, which allows right-in, right-out only operation at the project driveway. The stop sign at the project driveway would slow traffic leaving the site and would reduce potential traffic hazards. With the implementation of Mitigation Measure 4.6-3, the project's impact to traffic safety and emergency vehicle access would be **less than significant**.

Impact 4.6-4: Conflict with existing plans and policies regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The project would not conflict with existing plans and policies regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. This impact would be **less than significant**.

The project would not conflict with operation of the existing VTA bus route or nearby CalTrain lines. The project would also not conflict with the planned California HST alignment alternatives planned east of the project site. (See Exhibit 4-1 in Chapter 4, “Affected Environment, Environmental Consequences, And Mitigation Measures.”) because the HST facility is not located on the project site and implementation of the proposed religious center would not interfere with implementation or operation of the HST within either of the alternative alignments planned. No HST stations or other facilities that could affect the nearby transportation network are proposed in the immediate vicinity. Currently, there are no pedestrian facilities along Monterey Road in the vicinity of the site. However, the project includes plans to construct a sidewalk along the west side of Monterey Road for the length of the project site consistent with the typical arterial road section improvements required by the Department of Roads and Airports. This sidewalk would connect with the sidewalk proposed along the frontage of the proposed Patel RV Park and facilitate pedestrian access to the VTA bus station at Monterey Road and San Martin Avenue, as well as the San Martin CalTrain Station. Impacts to public transit, bicycle, or pedestrian facilities would be **less than significant**.

CUMULATIVE IMPACTS

Impact 4.6-5: Contribution to cumulative roadway level of service impacts.

Less-than-considerable contribution. With cumulative traffic volumes, Monterey Road at the project driveway would operate at an acceptable level of service. The project’s contribution to a cumulative impact on traffic volumes would be **less than considerable**.

To estimate the cumulative volumes on Monterey Highway, a 1.2 percent per year vehicular growth rate was applied to the north and southbound volume on Monterey Highway for a span of 18 years (projecting out to year 2035). This growth rate was obtained from the Morgan Hill 2035 Draft EIR (Table 4.14-10), which includes average daily traffic projections for Monterey Highway between Starswept Lane and East Middle Avenue. This roadway segment is less than a mile north of the Cordoba Center project site. Under cumulative plus project conditions, Monterey Road operates with a.m. peak-hour volume of 2,427 vehicles and a p.m. peak-hour volume of 2,084 vehicles, both of which are LOS B or better (see Impact 4.6-2) (Fehr and Peers 2017). Therefore, the proposed project’s contribution to a cumulative impact to traffic volumes is **less than considerable**.

Impact 4.6-6: Contribution to cumulative roadway safety hazards.

Less-than-considerable contribution with mitigation. With implementation of Mitigation Measure 4.6-3, the ingress and egress from the proposed Cordoba Center project driveway would be operated safely in conjunction with the driveway of the proposed RV park adjacent to the project site. The proposed project’s contribution to a cumulative impact to traffic hazards is **less than considerable**.

The effects of past and present projects roadway safety are reflected by the existing conditions in the project area. Based on the list of probable future projects provided in Table 4-1 at the beginning of Chapter 4 of this Draft EIR, there is only one project with the potential to combine with the proposed project to generate cumulative roadway safety hazards. As shown on Exhibit 4.6-1, an RV park has been proposed on the parcel immediately south of the project site. Based on submitted plans, the driveway for the RV park would be located approximately 300 feet south of the proposed Cordoba Center driveway. The combined operation of

both driveways could lead to unsafe conditions on Monterey Road as there would be an increase in vehicles entering and exiting both project sites, with the potential for some of these maneuvers to occur simultaneously. The Department of Roads and Airports has determined that left turns in and out of the proposed Cordoba Center driveway cannot be made safely, and this condition would also apply to the proposed RV park. Therefore, both projects would be restricted to right-in and right-out driveway access. It should also be noted that Mitigation Measure 4.6-3 (Traffic safety improvements to site plans) would require the Cordoba Center project to construct a southbound deceleration and acceleration lanes before and after the project driveway. These lanes could potentially provide the same function for the proposed RV park project, allowing entering and exiting vehicles for both projects to avoid conflicts with high-speed traffic in the Monterey Road travel lanes. Therefore, the proposed project's contribution to a cumulative impact to traffic hazards is **less than considerable**.

4.7 GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND ENERGY

4.7.1 Introduction

This section presents a brief summary of the current state of climate change science, greenhouse gas (GHG) emissions sources and energy consumption in California; a summary of applicable regulations; quantification of GHG emissions and energy demand associated with implementation of the Cordoba Center Project, and discussion about the project's potential contribution to global climate change; and analysis of the project's resiliency to climate change-related risks and consumption of energy. Mitigation measures are recommended to reduce the project's significant impacts.

4.7.2 Environmental Setting

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

The Physical Scientific Basis

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane, nitrous oxide (N₂O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forces together (Intergovernmental Panel on Climate Change [IPCC] 2014:3, 4).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the lifetime of any particular GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere (IPCC 2013:467).

The quantity of GHGs in the atmosphere that ultimately result in climate change is not precisely known but is enormous; no single project alone would measurably contribute to an incremental change in the global average temperature, or to global, local, or micro climates. Thus, from the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

GREENHOUSE GAS EMISSION SOURCES

GHG emissions are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors (California Air Resources Board [CARB] 2014a). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (CARB 2016b). Emissions of CO₂ are byproducts of fossil fuel combustion. CH₄, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N₂O is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water), respectively, two of the most common processes for removing CO₂ from the atmosphere.

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to the IPCC, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature is expected to increase by 3 to 7 degrees Fahrenheit (°F) by the end of the century, depending on future GHG emission scenarios (IPCC 2007). According to the California Natural Resources Agency (CNRA), temperatures in California are projected to increase 2 to 5°F by 2050 and by 4 to 9°F by 2100 (CNRA 2009).

Other environmental resources could be indirectly affected by the accumulation of GHG emissions and resulting rise in global average temperature. In the recent years, California has been marked by extreme weather and its effects. According to CNRA's draft report, *Safeguarding California Plan: 2017 Update* (CNRA 2017), California experienced the driest four-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014 (CNRA 2017). In contrast, the northern Sierra Nevada range experienced its wettest year on record in 2016 (CNRA 2017:20). The changes in precipitation exacerbate wildfires throughout California with increasing frequency, size, and devastation. As temperatures increase, the increase in precipitation falling as rain rather than snow also could lead to increased potential for floods because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Mountains until spring would flow into the Central Valley concurrently with winter rainstorm events. This scenario would place more pressure on California's levee/flood control system. Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet, sea level along the California's coastline could rise up to 10 feet by 2100, which is approximately 30 to 40 times faster than sea level rise experienced over the last century (CNRA 2017:102).

Changes in precipitation patterns and increased temperatures are expected to alter the distribution and character of natural vegetation and associated moisture content of plants and soils. An increase in frequency of extreme heat events and drought are also expected. These changes are expected to lead to increased frequency and intensity of wildfires (CNRA 2012).

The California Department of Transportation (Caltrans) owns and operates more than 51,000 miles along 265 highways, as well as three of the busiest passenger rail lines in the nation. Sea level rise, storm surge, and coastal erosion are imminent threats to highways, roads, bridge supports, airports, transit systems and rail lines near sea level and seaports. Shifting precipitation patterns, increased temperatures, wildfires, and increased frequency in extreme weather events also threaten transportation systems across the state. Temperature extremes and increased precipitation can increase the risk of road and railroad track failure, decreased transportation safety, and increased maintenance costs (CNRA 2017:59).

Water availability and changing temperatures, which effects prevalence of pests, disease, and species, directly impact crop development and livestock production. Other environmental concerns include decline in water quality, groundwater security, and soil health (CNRA 2017:69). Vulnerabilities of water resources also include risks to degradation of watersheds, alteration of ecosystems and loss of habitat, impacts to coastal areas, and ocean acidification (CNRA 2017:115). The ocean absorbs approximately a third of the CO₂

released into the atmosphere every year from industrial and agricultural activities, changing the chemistry of the ocean by decreasing the pH of seawater. This ocean acidification is harmful to marine organisms especially calcifying species such as oysters, clams, sea urchins, and corals (CNRA 2017:101).

Cal-Adapt is a climate change scenario planning tool developed by the California Energy Commission (CEC) that downscales global climate model data to local and regional resolution under two emissions scenarios: the A-2 scenario represents a business-as-usual future emissions scenario, and the B-1 scenario represents a lower GHG emissions future. According to Cal-Adapt, annual average temperatures in the project area are projected to rise by 4.5 to 8.8° F by 2099, with the range based on low and high emissions scenarios (Cal-Adapt 2017).

Energy Facilities and Services in the Project Area

Electric and natural gas services in the Santa Clara County are provided by the Pacific Gas & Electric Company (PG&E). Lateral connections to existing PG&E infrastructure along Monterey Road would be constructed to provide electricity and natural gas service to the project.

Energy Types and Sources

In 2013, the world total energy consumption was about 543 quadrillion British thermal units (Btu), defined as the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit, 18 percent of which occurred within the U.S. Fossil fuels provide approximately 80 percent of the energy used in the U.S., nuclear power provides about 8.5 percent, and renewable energy provides approximately 9.8 percent (U.S. Energy Information Administration [EIA] 2016). California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Recent trends associated with energy use in California are discussed below.

Petroleum

Gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet specific formulations required by the California Air Resources Board. Major petroleum refineries in California are concentrated in three counties: Contra Costa County in northern California, Kern County in central California, and Los Angeles County in southern California.

Natural Gas

The natural gas market continues to evolve in California and is mainly used in four sectors—residential, commercial, industrial, and electric power generation. In addition, natural gas is an alternative to petroleum for use in trucks, buses, and some cars. Alternative transportation-related vehicles are increasing in use by consumers along with the development of a safe, reliable refueling infrastructure (CEC 2016).

In 2014, approximately 35 percent of all natural gas consumed in the state was used to generate electricity. Residential land uses represented approximately 17 percent of California's natural gas consumption with the balance consumed by the industrial, resource extraction, and commercial sectors (EIA 2014).

Electricity and Renewables

Power plants in California meet approximately 68 percent of the in-state electricity demand; hydroelectric power from the Pacific Northwest provides another 12 percent; and power plants in the southwestern U.S. provide another 20 percent (EIA 2014). The contribution of in-state and out-of-state power plants depends upon, among other factors, the precipitation that occurred in the previous year and the corresponding amount of hydroelectric power that is available. PG&E is the primary electricity supplier in Santa Clara County.

California regulations require that electricity consist of 33 percent renewables by 2020 and 50 percent renewables by 2030 for all electricity retailers in the state, as explained in more detail in Section 4.7-2, "Regulatory Setting." As of 2016, in-state generation of electricity from renewable resources including biomass, geothermal, small hydroelectric, solar, and wind had a capacity of 26,300 MW (CEC 2016).

Alternative Fuels

A variety of alternative fuels are used to reduce demand for petroleum-based fuel. The use of these fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, AB 32 Scoping Plan). Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many transportation fuels, including:

- ▲ biodiesel,
- ▲ electricity,
- ▲ ethanol (E-10 and E-85),
- ▲ hydrogen,
- ▲ natural gas (methane in the form of compressed and liquefied natural gas),
- ▲ propane,
- ▲ renewable diesel (including biomass-to-liquid),
- ▲ synthetic fuels, and
- ▲ gas-to-liquid and coal-to-liquid fuels.

California has a growing number of alternative fuel vehicles through the joint efforts of CEC, CARB, local air districts, the California Department of Energy, transit agencies, utilities, and other public and private entities. As of September 2016, California contained nearly 14,000 alternative fueling stations (Alternative Fuels Data Center 2017).

COMMERCIAL AND RESIDENTIAL ENERGY USE

Homes built between 2000 and 2015 used 14 percent less energy per square foot than homes built in the 1980s, and 40 percent less energy per square foot than homes built before 1950. However, the increase size of newer homes has offset these efficiency improvements. Primary energy consumption in the residential sector total 21 quadrillion Btu in 2009 (the latest year the EIA's *Residential Energy Consumption Survey* was completed), equal to 54 percent of consumption in the buildings sector and 22 percent of total primary energy consumption in the U.S. Energy consumption increased 24 percent from 1990 to 2009. However, because of projected improvements in building and appliance efficiency, the EIA 2012 Annual Energy Outlook forecast a 13 percent increase in energy consumption from 2009 to 2035 (EIA 2016).

Commercial buildings represent just under one-fifth of U.S. energy consumption with office space, retail, and educational facilities representing about half of commercial sector energy consumption. In aggregate, commercial buildings consumed 46 percent of building energy consumption and approximately 19 percent of U.S. energy consumption. In comparison, the residential sector consumed approximately 22 percent of U.S. energy consumption (EIA 2012).

ENERGY USE FOR TRANSPORTATION

Transportation is the second largest energy consumer nationwide, accounting for 27 percent of the total national energy use (EIA 2016). On-road vehicles are estimated to consume approximately 80 percent of California's transportation energy demand, with cars, trucks, and buses accounting for nearly all of the on-road fuel consumption. Petroleum products (gasoline, diesel, jet fuel) account for almost 99 percent of the energy used in California by the transportation sector, with the rest provided by ethanol, natural gas, and electricity (Bureau of Transportation Statistics 2015).

Vehicle Miles Traveled and Gasoline Consumption

As noted in the Regulatory Setting of this section, several State mandates and efforts, such as SB 375, seek to reduce VMT. Transportation energy (fuel and electricity) consumption per capita in California decreased by nearly 11 percent from 2008 to 2011 (Bureau of Transportation Statistics 2015). Despite the progress in reducing per capita VMT and per capita fuel consumption, the continued projected increases in total fuel consumption and VMT can be attributed to the overall increase in population; see Section 4.6,

“Transportation and Circulation” and Appendix E (Traffic Study) for more information on VMT and other travel-related data.

Energy Used by Private and Commercial Vehicles

Commercial vehicles, generally composed of light-, medium-, and heavy-duty trucks, are typically fueled by diesel or gasoline and are part of the general fleet mix of vehicles present within the Santa Clara County region transportation system.

Average fuel economy is expected to increase for automobiles and all types of trucks. The federal Corporate Average Fuel Economy (CAFE) is the required average fuel economy for a vehicle manufacturer’s entire fleet of passenger cars and light-duty trucks for each model year. For many years, the standard for passenger automobile was 27.5 miles per gallon (mpg), and the standard for light-duty trucks, a classification that also includes sport utility vehicles (SUVs) under 8,500 pounds, rose to 22.5 mpg for 2008 models. Effective with the 2011 model year, the CAFE standard was revised from a single number to a model-specific formulation based on the size of the vehicle, in square feet (wheelbase times track, or the distance between the axles multiplied by the distance between the wheels of each axle), referred to as the vehicle’s “footprint.” For 2012, the average CAFE standard for passenger cars is 33.3 mpg, while for light-duty trucks it is 25.4 mpg (Federal Register 2010).

ENERGY USE AND CLIMATE CHANGE

Scientists and climatologists have produced evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase of the earth’s temperature.

4.7.3 Regulatory Setting

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Federal

National Program to Cut Greenhouse Gas Emissions and Improve Fuel Economy for Cars and Trucks

On August 28, 2014, the U.S. Environmental Protection Agency’s (EPA) and the Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) finalized a new national program that would reduce GHG emissions and improve fuel economy for all new cars and trucks sold in the U.S. (NHTSA 2012). EPA proposed the first-ever national GHG emissions standards under the federal Clean Air Act, and NHTSA proposed Corporate Average Fuel Economy standards under the Energy Policy and Conservation Act. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program will increase fuel economy to the equivalent of 54.5 miles per gallon (mpg) for the fleet of cars and light-duty trucks by model year 2025, and, as of 2016, NHTSA and EPA are developing additional phases to address GHG emission standards for new medium- and heavy-duty trucks (NHTSA 2016).

State

Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California’s air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the executive order established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050. This executive order was the subject of a California Appellate Court decision, *Cleveland National Forest Foundation v. San Diego Association of Governments* (SANDAG)

(November 24, 2014) 231 Cal.App.4th 1056, which was reviewed by the California Supreme Court in January 2017. The Supreme Court decided a singular question in the case, which was released on July 13, 2017. The California Supreme Court ruled that SANDAG did not abuse its discretion by declining “to adopt the 2050 goal as a measure of significance in light of the fact that the Executive Order does not specify any plan or implementation measures to achieve its goal.” In addition to concluding that an EIR need not use this executive order’s goal for determining significance, the Court described several principles relevant to CEQA review of GHG impacts, including: (1) EIRs should “reasonably evaluate” the “long-range GHG emission impacts for the year 2050;” (2) the 2050 target is “grounded in sound science” in that it is “based on the scientifically supported level of emissions reduction needed to avoid significant disruption of the climate;” (3) in the case of the SANDAG plan, the increase in long-range GHG emissions by 2050, which would be substantially greater than 2010 levels, was appropriately determined to be significant and unavoidable; (4) the reasoning that a project’s role in achieving a long-range emission reduction target is “likely small” is not valid for rejecting a target; and (5) “as more and better data become available,” analysis of proposed plan impacts will likely improve, such that “CEQA analysis stays in step with evolving scientific knowledge and state regulatory schemes.”

Assembly Bill 32, the California Global Warming Solutions Act of 2006

In September 2006, Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006, Assembly Bill (AB) 32. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that these reductions “...shall remain in effect unless otherwise amended or repealed. (b) It is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020. (c) The [CARB] shall make recommendations to the Governor and the Legislature on how to continue reductions of greenhouse gas emissions beyond 2020.” [California Health and Safety Code, Division 25.5, Part 3, Section 38551]

Assembly Bill 32 Climate Change Scoping Plan and Update

In December 2008, CARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 million metric tons (MMT) of CO₂-equivalent (CO₂e) emissions, or approximately 21.7 percent from the State’s projected 2020 emission level of 545 MMT of CO₂e under a business-as-usual scenario (this is a reduction of 47 MMT CO₂e, or almost 10 percent, from 2008 emissions). In May 2014, CARB released and has since adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate progress that has been made between 2000 and 2012 (CARB 2014:4 and 5). According to the update, California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 (CARB 2014:ES-2). The update also reports the trends in GHG emissions from various emissions sectors (e.g., transportation, building energy, agriculture).

On January 20, 2017, CARB released its proposed 2017 Climate Change Scoping Plan Update, which lays out the framework for achieving the 2030 reductions as established in more recent legislation (discussed below). The proposed 2017 Scoping Plan Update identifies the GHG reductions needed by each emissions sector to achieve a statewide emissions level that is 40 percent below 1990 levels before 2030 consistent with Senate Bill 32.

Senate Bill 375

SB 375, signed by the Governor in September 2008, aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy, showing prescribed land use allocation in each MPO’s Regional Transportation Plan. CARB, in consultation with the MPOs, is to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

The Metropolitan Transportation Commission (MTC) serves as the MPO for the nine counties in the bay area region, including the County of Santa Clara where the project site is located. In 2014, the MTC adopted Plan

Bay Area, the areas Regional Transportation Plan/Sustainable Communities Strategy. MTC was tasked by CARB to achieve a 10 percent per capita reduction compared to 2005 level emissions by 2020 and a 16 percent per capita reduction by 2035, which CARB confirmed the region would achieve by implementing its SCS (CARB 2013).

Executive Order B-30-15

On April 20, 2015 Governor Edmund G. Brown Jr. signed Executive Order B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's executive order aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union which adopted the same target in October 2014. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (Assembly Bill 32, discussed above). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction target of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified this target originally established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the state. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions than the statewide fleet in 2016 (CARB 2016a).

Senate Bill X1-2, the California Renewable Energy Resources Act of 2011 and Senate Bill 350, the Clean Energy and Pollution Reduction Act of 2015

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 sets a three-stage compliance period requiring all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond. In October 2015, SB 350 was signed by Governor Brown, which requires retail sellers and publicly-owned utilities to procure 50 percent of their electricity from renewable resources by 2030.

California Building Efficiency Standards of 2013 (Title 24, Part 6)

Buildings in California are required to comply with California's Energy Efficiency Standards for Residential and Nonresidential Buildings established by the CEC regarding energy conservation standards and found in Title 24, Part 6 of the California Code of Regulations. These standards were first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption and are updated on an approximately 3-year cycle to allow consideration and possible incorporation of new energy efficient technologies and methods. All buildings for which an application for a building permit is submitted on or after January 1, 2017 must follow the 2016 standards (CEC 2015). Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.

Regional

The project site is located in Santa Clara County under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). BAAQMD is responsible for establishing and managing air quality standards in the San Francisco Bay Area Air Basin as well as maintaining compliance with federal and state air quality standards. For air basins not in compliance with the federal Clean Air Act and the California Clean Air Act, management districts are required to develop plans to improve air quality and comply with federal and state standards. BAAQMD's 2017 Bay Area Clean Air Plan was adopted in April 2017 and provides a regional strategy to improve air quality and reduce GHG emissions, consistent with state policy, to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. BAAQMD's 2017 CEQA Air Quality Guidelines (Guidelines) provide guidance to lead agencies in reviewing projects for construction and operational activity emissions that may have an adverse impact on air quality in the region (BAAQMD 2017). For project review, the Guidelines provide two separate project-level thresholds of significance that can be used by lead agencies to evaluate GHG emissions for CEQA purposes. These include a metric ton per service population (MT/SP), where service population is equal to the project's employment and residences served, and a mass emissions threshold. Both analysis methods are discussed further below in the Thresholds of Significance section.

The thresholds referenced in the May 2017 Guidelines were designed to establish the level at which BAAQMD believed GHG emissions would result in a considerable contribution to climate change and could conflict with the State's overall efforts to meet GHG reduction targets by 2020. Considering recent passage of SB 32, which sets into law the mandated reduction target in GHG emissions as written into Executive Order B-30-15 (i.e., 40 percent below 1990 levels by 2030), the current guidance and thresholds of significance that only considered 2020-year emissions targets are in need of an update. Currently, BAAQMD is in the process of updating its CEQA Guidelines, which will include thresholds of significance that land use development projects would be able to use to determine significance with respect to 2030 statewide GHG emissions targets. However, at this time, no updated guidelines have been adopted.

ENERGY

Federal and State agencies regulate energy consumption through various policies, standards, and programs. At the local level, individual cities and counties establish policies in their general plans and climate action plans related to the energy efficiency of new development and land use planning and to the use of renewable energy sources.

Energy conservation is embodied in many federal, State, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., EPA EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the state level, Title 24 of the California Code of Regulations sets forth energy standards for buildings. Further, the State provides rebates/tax credits for installation of renewable energy systems and offers the Flex Your Power program promotes conservation in multiple areas.

Federal

Energy Policy and Conservation Act, and CAFE Standards

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this Act, NHTSA, part of the U.S. Department of Transportation, is responsible for revising existing fuel economy standards and establishing new vehicle economy standards.

Energy Policy Act of 1992

The Energy Policy Act of 1992 (EPAAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally-fueled fleets in metropolitan areas. EPAAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAAct. Federal tax deductions will be allowed for businesses and individuals to fund the incremental cost of AFVs. EPAAct requires states to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005

The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over current levels; and reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent (National Electrical Manufacturers Association 2012).

State

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as CEC. The Act established state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately-owned utilities in the energy, rail, telecommunications, and water fields.

State of California Energy Plan

CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The current plan is the 1997 California Energy Plan. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs; and encouragement of urban design that reduces VMT and accommodates pedestrian and bicycle access.

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to AB 2076 (Chapter 936, Statutes of 2000), CEC and CARB prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence*. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30

percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CARB 2003). Further, in response to the CEC's 2003 and 2005 *Integrated Energy Policy Reports*, Governor Davis directed CEC to take the lead in developing a long-term plan to increase alternative fuel use.

A performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand.

Integrated Energy Policy Report

SB 1389 (Chapter 568, Statutes of 2002) required CEC to: “[C]onduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state’s economy, and protect public health and safety” (Public Resources Code Section 25301(a)). This work culminated in the Integrated Energy Policy Report (IEPR).

CEC adopts an IEPR every two years and an update every other year. The 2015 IEPR is the most recent IEPR, which was adopted February 24, 2016. The 2015 IEPR provides a summary of priority energy issues currently facing the State, outlining strategies and recommendations to further the State’s goal of ensuring reliable, affordable, and environmentally-responsible energy sources. Energy topics covered in the report include progress toward statewide renewable energy targets and issues facing future renewable development; efforts to increase energy efficiency in existing and new buildings; progress by utilities in achieving energy efficiency targets and potential; improving coordination among the State’s energy agencies; streamlining power plant licensing processes; results of preliminary forecasts of electricity, natural gas, and transportation fuel supply and demand; future energy infrastructure needs; the need for research and development efforts to statewide energy policies; and issues facing California’s nuclear power plants.

Senate Bill 1078: California Renewables Portfolio Standard Program

SB 1078 (Chapter 516, Statutes of 2002) establishes a renewable portfolio standard (RPS) for electricity supply. The RPS requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 20 percent of their supply from renewable sources by 2017. This target date was moved forward by SB 1078 to require compliance by 2010. In addition, electricity providers subject to the RPS must increase their renewable share by at least 1 percent each year. The outcome of this legislation will impact regional transportation powered by electricity. As of 2016, the State has reported that 21 percent of electricity is sourced from certified renewable sources.

Energy Action Plan

California’s first Energy Action Plan (EAP) emerged in 2003 from a crisis atmosphere in California’s energy markets. The State’s three major energy policy agencies (CEC, CPUC, and the Consumer Power and Conservation Financing Authority [established under deregulation and now defunct]) came together to develop one high-level, coherent approach to meeting California’s electricity and natural gas needs. It was the first time that energy policy agencies formally collaborated to define a common vision and set of strategies to address California’s future energy needs and emphasize the importance of the impacts of energy policy on the California environment.

In the October 2005 *Energy Action Plan II*, CEC and CPUC updated their energy policy vision by adding some important dimensions to the policy areas included in the original EAP, such as the emerging importance of climate change, transportation-related energy issues and research and development activities. The CEC recently adopted an update to the EAP II in February 2008 that supplements the earlier EAPs and examines the State’s ongoing actions in the context of global climate change.

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other state, federal, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The SAF Plan

assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Executive Order S-06-06

EO S-06-06, signed on April 25, 2006, establishes targets for the use and production of biofuels and biopower, and directs state agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The Executive Order establishes the following target to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its biofuels within California by 2010, 40 percent by 2020, and 75 percent by 2050. The EO also calls for the State to meet a target for use of biomass electricity. The 2011 Bioenergy Action Plan identifies those barriers and recommends actions to address them so that the State can meet its clean energy, waste reduction, and climate protection goals. The 2012 Bioenergy Action Plan updates the 2011 plan and provides a more detailed action plan to achieve the following goals:

- ▲ increase environmentally- and economically-sustainable energy production from organic waste;
- ▲ encourage development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable liquid fuels for transportation and fuel cell applications;
- ▲ create jobs and stimulate economic development, especially in rural regions of the state; and
- ▲ reduce fire danger, improve air and water quality, and reduce waste.

As of 2015, 3.2 percent of the total electricity system power in California was derived from biomass.

California Green Building Standards

California Code of Regulations, Title 24, Part 6, is California's Energy Efficiency Standards for Residential and Non-Residential Buildings. Title 24 was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and non-residential buildings. In 2013, CEC updated Title 24 standards with more stringent requirements, effective July 1, 2014. All buildings for which an application for a building permit is submitted on or after July 1, 2014 must follow the 2013 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The CEC *Impact Analysis for California's 2013 Building Energy Efficiency Standards* estimates that the 2013 standards are 23.3 percent more efficient than the previous 2008 standards for residential construction and 21.8 percent more efficient for non-residential construction. In 2016, CEC updated Title 24 standards again, effective January 1, 2017. While the impact analysis of these standards has not yet been released, CEC estimates that the 2016 standards are 28 percent more efficient than 2013 standards for residential construction and are 5 percent more efficient for non-residential construction. The building efficiency standards are enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary because of local climatologic, geologic, or topographic conditions, provided that these standards exceed those provided in Title 24.

Local

Santa Clara County Green Building Ordinance

Santa Clara County adopted a green building ordinance in August 2017. Section C3-30 of the County Ordinance Code incorporates the California Green Building Standards Code into the County Ordinance Code. Included in the adopted California Green Building code is the CALGreen mandatory measures (applies to buildings less than 25,000 square feet [s.f.]) and additional Tier 1 measures (applies to buildings greater than 25,000 s.f. in addition to the mandatory measures for smaller buildings). The mandatory and Tier 1

measures include specific requirements that result in improved energy efficiency, reduced waste, water savings, and other environmental and design requirements. In addition, there are specific requirements to include bicycle parking and electric vehicle parking spaces in new development. New development within the County must complete the applicable checklist, to be submitted during the plan check process for the County to approve. Non-residential requirements included in this ordinance would apply to the project.

4.7.4 Analysis, Impacts, and Mitigation Measures

This section describes the project's effects on GHG emissions, climate change, and energy use. The discussion includes the methods and criteria for making significance determination regarding the project's GHG emissions and energy consumption.

ANALYSIS METHODOLOGY

GHG emissions and energy use associated with the project would be generated during project construction and operations. Analysis methods for each are described separately below.

Construction-Related Greenhouse Gas Emissions

Construction-related emissions of GHGs were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.1 computer program (California Air Pollution Control Officer's Association 2016), as recommended by BAAQMD. Modeling was based on project-specific information (e.g., size, area to be graded, area to be paved, energy information), where available; reasonable assumptions based on typical construction activities; and default values in CalEEMod that are based on the project's location and land use type.

Construction of the project was assumed to begin in 2018. Although the actual construction schedule is unknown at the time of writing this EIR, the earliest possible date that construction could occur was chosen. This assumption would be conservative, because emissions from construction equipment are expected to decrease in the future with increased emission controls. Project construction is anticipated to occur for a period of approximately four years. Construction of this project is to occur in four phases; Rough Grading, Infrastructure Improvements, Structure Construction, and Orchard and Open Space. Construction emissions were calculated cumulatively over the construction phases to estimate total construction-related GHGs. For a detailed description of model input and output parameters and assumptions, refer to Appendix C.

Operational Greenhouse Gas Emissions

Operation-related emissions of GHG were also estimated using CalEEMod Version 2016.3.1 with a project build-out year of 2021. Project-related operational emissions of GHGs were estimated for the following sources: area sources (e.g., landscaping-related fuel combustion sources), energy use (i.e., electricity and natural gas consumption), water use, solid waste, and mobile sources. Operational mobile-source GHG emissions were modeled based on the estimated daily VMT to the mosque by visitors (Fehr and Peers 2017). Indirect emissions associated with electricity and natural gas consumption were estimated using GHG emissions factors for PG&E published by The Climate Registry (PG&E 2015). The project's level of electricity and natural gas usage were based on 2016 Title 24-adjusted consumption rates provided by CalEEMod for each land use type (mosque and caretaker residence) associated with the proposed Cordoba Center. Adjustments were based on CEC's estimate that single-family houses are 28 percent more energy efficient than 2013 Title 24 standards and non-residential buildings are 5 percent more efficient than 2013 Title 24 standards (CEC 2015:p. 8).

Energy Consumption

Energy use associated with the construction phase of the project and annual operations was modeled using the CalEEMod Version 2016.3.1. Levels of construction- and operation-related energy consumption by the project are measured in megawatt-hours of electricity. Therms of natural gas, gallons of gasoline, and

gallons of diesel fuel. Where project-specific information was not known, CalEEMod default values based on the project's geographic location were used.

THRESHOLDS OF SIGNIFICANCE

Greenhouse Gas Emissions

The issue of global climate change is inherently a cumulative concern, as the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the project's impact to climate change is addressed as a cumulative impact.

CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency relevant, adopted plans, and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. In Appendix G of the State CEQA Guidelines, two questions are provided to help assess if the project would result in a potentially significant impact on climate change. These questions ask whether the project would:

- ▲ generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- ▲ conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

As the CEQA lead agency, the County of Santa Clara is responsible for determining whether a project's GHG emissions would be significant. The County has not adopted a Climate Action Plan or other qualified GHG reduction strategy that is consistent with CEQA Guidelines and State policy for reducing GHG emissions. Therefore, the County relies on available guidance from the BAAQMD for conducting GHG analyses. BAAQMD has developed thresholds of significance for land use development projects that occur within the jurisdiction of BAAQMD but has not developed specific thresholds for construction-related GHG emissions. BAAQMD recommends that lead agencies quantify and disclose construction-related GHG emissions and make a significance determination for these emissions. Due to the cumulative effect of GHGs, other large air districts, such as the Sacramento Metropolitan Air Quality Management District and the South Coast Air Quality Management District, recommend amortizing a project's construction emissions over the operational lifetime of the project. The sum of estimated amortized construction emissions and annual operation emissions per year is assumed to reflect the total annual GHG emissions attributable to the project. Thus, the combined operational and construction emissions can be compared to the annual operational threshold to determine project significance. Based on the 2017 BAAQMD Guidelines, the following project-level thresholds of significance are available:

- ▲ Compliance with a qualified GHG Reduction Strategy; or annual emissions less than 1,100 metric tons of CO₂e per year (MT CO₂e/year); or 4.6 MT CO₂e/SP/year (residents + employees). Land use development projects include residential, commercial, industrial, and public land uses and facilities.

However, these thresholds are derived based on emission and population estimates for achieving the State's GHG reduction targets for target year 2020. As discussed above, passage of SB 32 in September 2016 set a new State target for the year 2030 at 40 percent below 1990 levels. Because of the forecasted increase in future population, emission reductions statewide would need to be greater than what has been achieved currently to meet the increasingly stringent GHG reduction targets for 2030. Currently, BAAQMD is in the process of updating their CEQA Guidelines that will include thresholds of significance that land use development projects would be able to use to determine significance with respect to 2030 statewide GHG emissions targets. However, at this time current BAAQMD Guidelines only provide guidance and thresholds of significance tied to 2020 emissions targets.

Thus, absent thresholds of significance for institutional uses specifically tied to future target years, thresholds established by BAAQMD for compliance with 2020 targets have been adjusted down to provide

thresholds consistent with GHG reductions needed to meet state 2030 GHG targets in accordance with the following methodology. The most recent population and employment forecasts were used to estimate future 2030 service population. Threshold calculations are provided in Appendix C. Considering the available thresholds discussed above and Appendix G of the CEQA Guidelines, impacts would be considered significant if implementation of the project would:

- ▲ result in construction GHG emissions that exceed 1,100 MT CO₂e/year; or
- ▲ result in operational GHG emissions that exceed 660 MT CO₂e/year (a 40 percent reduction of the current bright-line threshold of 1,100 MT CO₂e to achieve a 40 percent reduction below 1990 levels by 2030); or 2.83 MT CO₂e/SP/year (adjusted down from the current service population efficiency metric of 4.6 MT CO₂e/SP/year for the 2020 target, to the 2030 emission target based on future growth and emissions projections).

Energy Consumption

The following significance criteria area based on CEQA Guidelines Appendix F (energy), under which implementation of the project would have a potentially significant adverse impact if the project would:

- ▲ result in wasteful, inefficient, or unnecessary consumption of energy, during project construction or operation, as evidenced by a failure to decrease overall per capita energy consumption or decrease reliance on fossil fuels such as coal, natural gas, and oil;
- ▲ fail to incorporate feasible renewable energy or energy efficiency measures into building design, equipment use, transportation, or other project features, or otherwise fail to increase reliance on renewable energy sources; or
- ▲ exceed the available capacities of energy supplies that require the construction of facilities.

IMPACTS AND MITIGATION MEASURES

Impact 4.7-1: Project-generated greenhouse gas emissions.

Project-related construction would generate approximately 319 MT CO₂e and project operation would generate approximately 1,165 MT CO₂e per year at project buildout in 2021. This level of GHG emissions would result in a **significant** impact and a **considerable contribution** to cumulative emissions related to global climate change, and conflict with State GHG reduction targets established for 2030 and 2050. Mitigation is recommended, including emissions reduction, energy efficiency, renewable energy, and carbon credit purchase that minimize this impact. However, because of the current uncertainty over what the applicable threshold is for a project of this type due to the transition in regulatory standards, and given uncertainty over whether GHG reductions through current offset programs are reliable and verifiable, it cannot be guaranteed that the project would not generate GHG emissions that conflict with CARB's proposed 2017 Scoping Plan Update and the established statewide GHG reduction targets it is designed to achieve. Therefore, this impact would remain **significant and unavoidable** and would constitute a **considerable contribution** to a cumulative impact after mitigation.

GHG emissions would be generated during construction and operation of the project. Project-related construction activities would result in the generation of GHG emissions from the use of heavy-duty off-road construction equipment, delivery trucks associated with materials transport, and worker commute trips.

Construction activities were assumed to occur over 4 years and full build out of the project was assumed to occur by 2021. Estimated levels of construction- and operation-related emissions are shown in Table 4.7-1.

Operation of the project would result in mobile-source GHG emissions associated with vehicle trips to and from the project, as well as energy use within the project area; area-source emissions from the operation of landscape maintenance equipment; emissions associated with the consumption of electricity and natural gas, including energy consumption associated with water use and the conveyance and treatment of wastewater; emissions associated with the disposal of solid waste.

Table 4.7-1 Project-Generated Greenhouse Gas Emissions

Emissions Source	Greenhouse Gas Emissions
Construction GHG Emissions	
Construction GHG Emissions (Total) ¹	319 MT CO ₂ e
Amortized Annual Construction Emissions (25 years)	13 MT CO ₂ e/year
Operational GHG Emissions	
Mobile-Sources (Vehicle Trips)	1,068 MT CO ₂ e/year
Natural Gas Combustion	25 MT CO ₂ e/year
Electricity Consumption	20 MT CO ₂ e/year
Solid Waste Generation	50 MT CO ₂ e/year
Water Consumption and Wastewater Generation	2 MT CO ₂ e/year
Landscape Maintenance Activity	0.2 MT CO ₂ e/year
Total Operational GHG Emissions ²	1,165 MT CO ₂ e/year
Total Project GHG Emissions²	1,178 MT CO₂e/year
Notes: CO ₂ e = carbon dioxide equivalent; MT = metric tons; GHG = greenhouse gas ¹ Construction-related GHGs include the permanent loss of sequestered carbon associated with vegetation removal. ² Operational total may not add because of rounding. Source: Modeled by Ascent Environmental in 2017	

As shown in Table 4.7-1, the project would generate 319 MT CO₂e over the construction period and annual operational emissions of 1,165 MT CO₂e/year. When operational emissions are combined with amortized construction emissions, total project annual emissions would be 1,178 MT CO₂e/year. Project operations would exceed the adjusted 2030 bright line threshold of 660 MT CO₂e/year. Further, to evaluate the project's emissions using the service population threshold, the project's service population was estimated based on the one on-site residence, two employees, and one Imam, resulting in a service population of seven. Based on total annual project emissions of 1,178 MT CO₂e/year and a service population of seven, annual project emissions would be 168 MT/SP/year, exceeding the adjusted 2030 threshold of 2.8 MT/SP/year.

Therefore, because the project's net annual increase in GHG emissions would exceed the adjusted thresholds, which are used to determine if project-generated GHG emissions would conflict with the State's ability to meet future (i.e., 2030) GHG reduction targets, the project would result in a **considerable contribution to a significant cumulative impact** and would require mitigation.

Mitigation Measure 4.7-1: Prepare and implement GHG-reduction plan.

Prior to issuance of grading or building permits for project, the project applicant shall hire a qualified GHG specialist to prepare and submit to the County Planning Department a GHG-reduction plan to calculate final emissions from construction and operations and propose quantifiable strategies to ensure that the project-related incremental increase of GHG emissions do not exceed the 2030 threshold of 2.8 MT of CO₂e/year/service population. If at the time the GHG-reduction plan is being prepared BAAQMD has completed updating its CEQA Guidelines and the County Planning Office, in consultation with BAAQMD,

determines that those guidelines include a project-level GHG threshold that is more appropriate for this project, the County Planning Office may approve use of that BAAQMD project-level GHG threshold from the updated guidelines in place of the threshold used in this EIR (2030 threshold of 2.8 MT of CO₂e/year/service population). Any revision to the project-level GHG threshold will be made after public notice and an administrative hearing. The GHG-reduction plan may include, but not be limited to, the following measures:

Construction-phase GHG Reduction Measures

- ▲ To the extent feasible, all diesel-powered construction equipment shall be fueled with renewable diesel fuel. The renewable diesel fuel must be compliant with California's Low Carbon Fuel Standards. This measure does not apply to haul trucks with on-road engines that are used to carry equipment and materials to and from the construction site and other vendor trips because the selection and operation of these trucks are not in control of the contractor. Feasibility shall be determined by the County in coordination with the applicant and the qualified GHG specialist.
- ▲ Implement a construction-worker carpool and transit program to encourage construction workers to carpool and use public transit to commute to and from the project site. This measure applies only to workers who will work at the site five or more consecutive work days. The program shall include a virtual or physical "ride board" for workers to organize car pools. The program shall also reimburse workers for any expenses they incur from using local public transit to commute to the construction site.
- ▲ Install a temporary electric power connection at the construction site to power any electric power equipment used during project construction (e.g., welders, lights) in lieu of any stationary generators powered by fossil fuels.

On-site Operational GHG Emission Reduction Measures

- ▲ Implement a travel demand management program to increase carpool options and transit use to decrease GHG emissions from vehicle trips.
- ▲ Install solar panels in appropriate locations on the site. Appropriate locations are not limited to rooftops but shall be limited to areas with impervious surfaces. Specific placement and appearance of solar panels shall be selected to integrate tastefully into the design and to minimize conspicuous visibility from public roads and shall comply with all applicable design guidelines. The locations and quantity of panels will be determined by the County in coordination with the applicant and the GHG specialist.
- ▲ Install electric tankless and/or rooftop solar water heating system(s).
- ▲ Install all Energy Star®-certified appliances (if an Energy Star®-certified model of the appliance is available). Energy Star®-certified appliances are listed on EPA's website: <https://www.energystar.gov/products?s=footer> (EPA 2017). If EPA's Energy Star® program is discontinued before appliances and fixtures are selected, then this measure shall not be required.
- ▲ Install high-efficiency lighting (i.e., LED) for all exterior and interior lighting needs.
- ▲ Provide electrical outlets at the exterior of all project buildings and in outdoor activity areas to allow sufficient powering of electric landscaping equipment and special equipment used during outdoor events (e.g., community picnics, summer camps).
- ▲ Use water-efficient irrigation systems (i.e., drip systems with smart irrigation meters) and landscaping techniques/design.
- ▲ Only use drought tolerant plants in landscaped areas (does not apply to orchard area).
- ▲ If feasible, install a grey water system to irrigate outdoor landscaping and/or to use for indoor non-potable water uses.

- ▲ To reduce landfill waste generated during operation of the project, include separate recycling and waste containers to support recycling collection service.
- ▲ Include any other GHG reduction measures that the applicant deems feasible and approved by County staff.

Because mobile sources (vehicle trips) would constitute the majority of GHG emissions, and it is anticipated that the project proponent would be unable to reduce the operations-related incremental increase of GHG emissions to below the threshold of 2.8 MT of CO₂e/year/service population using the above measures, the project proponent shall offset all remaining incremental emissions above that threshold. Any offset of operational emissions shall be demonstrated to be real, permanent, verifiable, enforceable, and additional. To the maximum extent feasible, as determined by the County in coordination with the BAAQMD, offsets shall be implemented locally. Offsets may include but are not limited to, the following (in order of preference):

- ▲ Funding of local projects, subject to review and approval by the BAAQMD, that would result in real, permanent, verifiable, enforceable, and additional reduction in GHG emissions. If the BAAQMD or County of Santa Clara develops a GHG mitigation fund, the County may instead pay into this fund to offset project incremental GHG emissions in excess of the significance threshold.
- ▲ Purchase of carbon credits to offset project incremental emissions to below the significance threshold. Carbon offset credits must be verified and registered with The Climate Registry, the Climate Action Reserve, or other source that is approved by the California Air Resources Board as being consistent with the policies and guidelines of the California Global Warming Solution Act of 2006 (AB 32), or available through a County- or BAAQMD-approved local GHG mitigation bank or fund.

Significance after Mitigation

Implementation of Mitigation Measure 4.7-1 would require implementation of a series of GHG reduction and compensation measures included in a GHG-reduction plan that would be reviewed and approved by the County prior to issuance of grading permits. Implementation of the GHG reduction plan would reduce net project-related GHG emissions. However, because of the current uncertainty over what the applicable threshold is for a project of this type due to the transition in regulatory standards, and given uncertainty over whether GHG reductions through current offset programs are reliable and verifiable, it cannot be guaranteed that the project would not generate GHG emissions that conflict with CARB's proposed 2017 Scoping Plan Update and the established statewide GHG reduction targets it is designed to achieve. As a result, it cannot be assumed that even with implementation of Mitigation Measure 4.7-1, the project's GHG emissions would be reduced to a less-than-significant level; therefore, the proposed project would result in a **significant and unavoidable** impact and a **considerable** contribution to a cumulative impact after mitigation.

Impact 4.7-2: Wasteful, inefficient, or unnecessary consumption of energy, during project construction or operation.

The project would increase electricity and natural gas consumption at the site relative to existing conditions. The project would be required to meet the California Code of Regulations Title 24 standards for building energy efficiency. Implementation of mitigation measures addressing GHGs and transit needs would also improve the energy efficiency of the project. Construction energy consumption would be temporary and would not require additional capacity or increased peak or base period demands for electricity or other forms of energy. The project would not result in wasteful, inefficient, or unnecessary consumption of energy. Thus, the impact would be **less than significant**.

Appendix F of the State CEQA Guidelines requires the consideration of the energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision (b)(3)). Neither the law nor the State CEQA Guidelines recommend criteria that define wasteful, inefficient, or unnecessary use of energy.

Energy consumed by project construction and the long-term operation of the facility are discussed separately below. Detailed estimates of the project's energy consumption levels are provided in Appendix C.

Construction-Related Energy Consumption

Energy would be required to construct the project, operate, and maintain construction equipment, and produce and transport construction materials. During construction energy consumption would result from operation of construction equipment and vehicle trips associated with commutes by construction workers and haul trucks supplying equipment and materials to the site. The energy needs for project construction would be temporary and is not anticipated to require additional capacity or increase peak or base period demands for electricity or other forms of energy. Construction equipment use and associated energy consumption would be typical of that associated with construction of new residential and commercial projects in a suburban setting.

Based on the CalEEMod model runs used to estimate emissions, it is estimated that approximately 1,040,817 gallons of gasoline and 74,041 gallons of diesel fuel would be consumed to construct the project. These estimates assume that the off-road diesel equipment would be powered by conventional fossil fuel-diesel; however, Mitigation Measure 4.7-1 requires preparation and implementation of a GHG reduction plan that includes renewable diesel to power off-road construction equipment renewable diesel fuel if available. These fuel consumption estimates also don't account for the fact that Mitigation Measure 4.7-1 also includes the use of Tier 4 construction equipment, which are generally more fuel efficient than lower-tier equipment (Caterpillar 2016:2; Cummins 2014; Mitsubishi Caterpillar Forklift America Inc. 2015). Mitigation Measure 4.7-1 also includes installation of a temporary electric power connection at the construction site to power any electric power equipment used during project construction (e.g., welders, lights) in lieu of any stationary generators powered by fossil fuels. This would result in less fossil fuel consumption by construction equipment because using electricity from the grid would be more fuel-efficient than producing electricity on site with a generator powered by gasoline, diesel, natural gas, or some other fossil fuel.

Operational Energy Consumption

Operation of the project would be typical of religious and educational uses requiring electricity and natural gas for lighting, space and water heating, appliances, and ongoing landscape maintenance. The project would increase electricity and natural gas consumption in the region relative to existing conditions and would construct new utility connections to existing electrical and natural gas facilities. Buildings developed as part of the project would meet the California Code of Regulations Title 24 standards for energy efficiency that are in effect at the time of construction that will continue to require improved building energy efficiency.

It is estimated that the operation of the project would consume approximately 152 megawatt-hours of electricity per year and approximately 465 million British thermal units of natural gas per year, without mitigation. Implementation of Mitigation Measure 4.7-1 would further improve the project's energy efficiency through measures such as increased use of on-site renewable energy (solar panels or commitment to using green energy), use of electric tankless or and/or rooftop solar hot water heating systems, high-efficiency lighting, Energy Star®-certified appliances and fixtures, and water-efficient irrigation systems. A combination of the included feasible measures would reduce wasteful energy consumption for building operations and improve the energy efficiency of the project.

Energy would be required to transport people and goods to and from the project site. During the first year of operation, which is anticipated to be in 2021, it is estimated that vehicle trips to and from the project site would consume approximately 107,584 gallons of gasoline and 22,608 gallons of diesel fuel. Fuel use estimates were calculated from the combination of fuel consumption rates and fuel mix by vehicle class from CARB's EMFAC2014 model with overall vehicle miles traveled and mode share by vehicle class modeled for the project in CalEEMod (Appendix C). The project would generate approximately 8,150 VMT per day and, assuming the same level of daily activity throughout the year, an approximate annual VMT of 2,974,750, based on the traffic study completed for the project (Fehr and Peers 2017). These annual estimates of fuel consumption are projected to decrease in subsequent years as new fuel-efficient vehicles continue to replace older, less efficient vehicles. State and federal regulations regarding standards for vehicles in California are designed to reduce wasteful, unnecessary, and inefficient use of energy for

transportation. Also, installing Level 2 chargers (identified in Mitigation Measure 4.7-1) to serve electric vehicles would support more energy efficient transportation.

Overall, fuel consumption associated with construction activities, building operation, and vehicle trips generated by the project would not be inefficient, wasteful, or unnecessary in comparison to other similar developments in the region because the project would comply with State requirements for building efficiency and would implement mitigation measures identified in this Draft EIR that would further increase efficiency. For these reasons, the project's energy consumption during construction, and from building operation and associated vehicle trips would not be wasteful, inefficient, or unnecessary. This impact would be **less than significant**.

CUMULATIVE IMPACTS

As discussed above, the impact of GHG emissions is inherently cumulative because the GHGs emitted by a single project would not be so substantial as to alter the global climate. Therefore, the analysis included for Impacts 4.7-1 and 4.7-2 fully address the cumulative impacts and no further analysis is necessary.

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5 ADDITIONAL ANALYSIS

5.1 GROWTH INDUCEMENT

As required by Section 15126.2(d) of the State CEQA Guidelines, an EIR must discuss ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also, the EIR must discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or other precedents that directly or indirectly encourage additional growth. Although growth inducement itself is not considered an environmental effect, it could potentially lead to adverse environmental effects. These environmental effects may include increased demand on other services and infrastructure, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, and conversion of agricultural and open space land to urban uses.

Direct growth inducement would result if a project involved construction of new housing, which would facilitate new population to an area. Indirect growth inducement would result if, for instance, implementing a project resulted in any of the following:

- ▲ substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- ▲ substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; and/or
- ▲ removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

The decision to allow those projects that result from induced growth is the subject of separate discretionary processes by the lead agency responsible for considering such projects. Because the decision to allow growth is subject to separate discretionary decision making, and such decision making is itself subject to CEQA, the analysis of growth-inducing effects is not intended to determine site-specific environmental impacts and specific mitigation for the potentially induced growth. Rather, the discussion is intended to disclose the potential for environmental effects to occur more generally, such that decision makers are aware that additional environmental effects are a possibility if growth-inducing projects are approved. The decision of whether impacts do occur, their extent, and the ability to mitigate them is appropriately left to consideration by the agency responsible for approving such projects at such times as complete applications for development are submitted.

5.1.1 Growth-Inducing Impacts of the Project

To reach the conclusion that a project is growth-inducing as defined by CEQA, the EIR must find that it would foster (i.e., promote, encourage, allow) additional growth in economic activity, population, or housing, regardless of whether the growth is already approved by and consistent with local plans. The conclusion does not determine that induced growth is beneficial or detrimental, consistent with Section 15126.2(d) of the State CEQA Guidelines.

The project is intended to serve the existing and projected Islamic population of south Santa Clara County. Construction activities would generate the need for construction workers during a limited time period. It is expected that these workers would be largely derived from people employed in the industry that already reside in the general area; worker relocation is not anticipated. During operation, it is anticipated a caretaker and his or her family would occupy the on-site residence. Three individuals would be employed at the site: two employees would work out of the maintenance building, and an Imam, the religious leader of the congregation, would have an office in the mosque. This use would not generate substantial population growth. Further, the project would not remove barriers to growth. Although water service would be provided to the site, it would be extended from existing, nearby infrastructure, and would terminate at the site without excess capacity to serve additional uses beyond the project. Therefore, the project would not contribute to substantial population growth, and there is no need to analyze impacts of growth beyond that included in the evaluations in Chapter 4, "Effectuated Environment, Environmental Consequences, and Mitigation Measures."

5.2 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines (Section 15126) require a discussion of the significant irreversible environmental changes that would result from approval and implementation of a proposed project. The irreversible and irretrievable commitment of resources is the permanent loss of resources for future or alternative purposes. Irreversible and irretrievable resources are those that cannot be recovered or recycled or those that are consumed or reduced to unrecoverable forms.

The project would result in the irreversible and irretrievable commitment of energy and material resources during construction and operation, including the following:

- ▲ construction materials, including such resources as soil, rocks, wood, concrete, glass, roof shingles, and steel;
- ▲ land area committed to new project facilities;
- ▲ water supply for project operation; and
- ▲ energy expended in the form of electricity, gasoline, diesel fuel, and oil for equipment and transportation vehicles that would be needed for project construction and operation.

The use of these nonrenewable resources is expected to account for a minimal portion of the region's resources and would not affect the availability of these resources for other needs within the region. Construction activities would not result in inefficient use of energy or natural resources. Construction contractors selected would use best available engineering techniques, construction and design practices, and equipment operating procedures. Long-term project operation would not result in substantial long-term consumption of energy and natural resources.

The project is not expected to result in irreversible damage from environmental accidents. No significant environmental damage, such as accidental spills or explosion of a hazardous material, is anticipated with development of the proposed residential project. The use of hazardous materials beyond standard construction supplies and household hazardous waste is not proposed. See Appendix A for further discussion of hazards and hazardous materials.

Although the project would require commitment of resources, these environmental changes are not considered significant for the purposes of this analysis. For further discussion of anticipated energy use, refer to Section 4.7, "Greenhouse Gas Emissions and Energy."

5.3 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15126.2(b) of the State CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. Chapter 4, “Affected Environment, Environmental Consequences, and Mitigation Measures,” describes the potential environmental impacts of the project, as well as the incremental effects of this project when viewed in connection with the effects of past projects, other current projects, and probable future projects, and recommends various mitigation measures to reduce impacts. After implementation of the recommended mitigation measures, all of the impacts associated with development of the project would be reduced to less-than-significant levels except the significant and unavoidable impacts due to project-generated greenhouse gas emissions. For details, see Section 4.7, “Greenhouse Gas Emissions, Climate Change, and Energy.”

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6 PROJECT ALTERNATIVES

6.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS

The State CEQA Guidelines require analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the project's basic objectives and avoid or substantially lessen any of the significant effects of the project (Section 15126.6[a]). The range of potentially feasible alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The potential feasibility of an alternative may be determined based on a variety of factors, including economic viability, availability of infrastructure, and other plans or regulatory limitations. Specifically, Section 15126.6(f)(1) of the State CEQA Guidelines states, in part:

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 (projects with a regionally significant impact should consider the regional context), 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). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a) of the State CEQA Guidelines. The State CEQA Guidelines further require that the alternatives be compared to the project's environmental impacts and that the "no project" alternative is considered (State CEQA Guidelines Section 15126.6[d][e]).

An EIR need not evaluate the environmental effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project. The requirement that an EIR evaluate alternatives to the proposed project or alternatives that address the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while reducing the magnitude of, or avoiding, the environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the Public Resources Code and the CEQA Guidelines direct that the EIR need "set forth only those alternatives necessary to permit a reasoned choice." The ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body (see Public Resources Code Section 21081[a] [3].)

6.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

6.2.1 Attainment of Project Objectives

As described above, one factor that must be considered in selection of alternatives is the ability of a specific alternative to attain most of the basic objectives of the project (California Code of Regulations Section 15126.6[a]). Chapter 3, "Project Description," articulates the following project objectives:

- ▲ provide a financially self-sustaining religious and cultural facility for members of the Muslim faith who reside in the south Santa Clara County area, including the cities of Gilroy and Morgan Hill;
- ▲ meet the worship and social support needs of local Muslim residents of all ages;

- ▲ provide a mosque for worship and related spiritual services; a cemetery for internment of deceased members of the congregation; a separate community building for social and educational activities; and necessary support uses, including a caretaker's dwelling and a maintenance building;
- ▲ develop adequate space to accommodate religious activities and administrative functions of the facility while respecting and preserving the natural aesthetic and heritage of the site;
- ▲ provide a buffer planted with trees, including orchard trees, to act as a visual and noise barrier between Monterey Highway and the mosque; to moderate the visual appearance of project development from off-site views; and to enhance the sense of "sanctuary" at the facility; and
- ▲ provide facilities sized to accommodate attendance projections for the growing SVIC community through at least 2030.

6.2.2 Avoidance or Reduction of Significant Project Impacts

An Initial Study was prepared (see Appendix A of this Draft EIR) to evaluate whether the project could result in potentially significant impacts to the environment and, based on this evaluation, determine which environmental issue areas should be further analyzed in the Draft EIR. The Initial Study concluded the Cordoba Center project would result in no impacts or less-than-significant impacts for the following environmental issue areas:

- ▲ Agricultural and Forest Resources,
- ▲ Air Quality,
- ▲ Geology and Soils,
- ▲ Hazards and Hazardous Materials,
- ▲ Land Use and Planning,
- ▲ Mineral Resources,
- ▲ Population and Housing,
- ▲ Public Services,
- ▲ Tribal Cultural Resources, and
- ▲ Utilities and Service Systems.

The Initial Study indicated that the project could result in a potentially significant impact related to seven environmental issue areas that were further evaluated in Sections 4.1 through 4.7 of this Draft EIR. These issue areas are listed below, each with a brief summary of the Draft EIR's conclusion.

- ▲ **Aesthetics and Visual Resources.** Adverse visual effects associated with project construction would be temporary, and dust would be controlled by implementing best management practices. Therefore, the construction phase of the project would not result in substantial adverse visual changes to the project site. The operation phase of the project would place structures and other facilities on the site where currently no structures exist. However, the structures would be designed according to the County's design review standards, as well as the San Martin Integrated Design Plan. Substantial tree planting would, once trees are mature (at least 5 years), generally screen views of the new structures from roadways. Mitigation measures include submittal of landscape plans that require appropriately placed evergreen trees to substantially screen structures throughout the year. The project would add sources of light, but the lighting would be consistent with County requirements and would be low level, constant in intensity and color, and directed to avoid glare and illumination onto neighboring properties. In addition, the proposed on-site trees would obscure lighting from neighboring areas. Minimal development is proposed in the region and the project would not contribute substantially to a cumulative impact. Overall, the project's impacts related to aesthetics and visual resources would be **less than significant with implementation of mitigation measures.**

- ▲ **Biological Resources.** The project would result in a less-than-significant impact related to riparian habitat, wetlands, wildlife corridors, and conflicts with the tree preservation ordinance. Project implementation includes conversion of grassland habitat, removal of trees, and ground disturbance associated with construction of new buildings and roads. These activities could result in the disturbance or direct loss of special-status plants and wildlife that use these habitats. This is considered a potentially significant impact. Mitigation measures are identified to minimize potential impacts to nesting raptors and special-status plants by requiring avoidance and protection measures during construction activities. Overall, the project's impacts related to biological resources would be **less than significant with implementation of mitigation measures.**
- ▲ **Cultural Resources.** There are no structures on the site; therefore, the project would not substantially affect a significant historic structure. There are also no unique geologic resources located on the project site. However, given that the project site is located adjacent to a geologic unit that, in other areas of the county, has contained fossils, there is a potential to discover unknown paleontological resources during construction. Archival research revealed that no previously recorded historic archaeological sites are located within or adjacent to the project site. Site reconnaissance found a small historic rock quarry on the hillside above Llagas Creek; however, it is located well outside the area proposed for construction. No additional cultural materials, prehistoric or historic, were noted within the project site. The Office of Historic Preservation has determined that the project site has the potential to contain unrecorded archaeological sites. Ground disturbing activities and excavation have the potential to uncover unknown archaeological or historical resources. The EIR includes mitigation measures to avoid or minimize impacts to unknown paleontological and cultural resources. Overall, project impacts related to cultural resources would be **less than significant with implementation of mitigation measures.**
- ▲ **Hydrology and Water Quality.** Regarding potential impacts to surface water quality, during construction, the project applicant would implement best management practices designed to limit erosion and improve stream flow through preparation of a stormwater pollution prevention plan and conformance with applicable regulations related to potential contamination because of potentially hazardous materials. During operation, design features would effectively limit off-site drainage and treat runoff on-site. The project would not alter the existing drainage pattern of the site or area such that there would be a substantial increase in erosion or contribution to the potential for flooding. Regarding potential impacts to groundwater quality, soil profile evaluations and percolation testing have demonstrated that the property has suitable conditions for on-site wastewater disposal in accordance with Santa Clara County requirements. However, the horizontal setback between the non-residential dispersal field and the proposed cut-slope adjacent to the pathway along the north side of the play area and sports courts does not meet the necessary setback requirements. These factors pose the risk of an unacceptable level of saturation beneath the drip fields. This impact is considered significant and the EIR includes mitigation measures, including revision of the wastewater disposal plan design, to reduce impacts to a less-than-significant level. Also, operation of the on-site waste disposal system could result in nitrogen levels that exceed the water quality standards for areas served by individual water wells. This would result in a significant impact to water quality. The EIR includes modification of the on-site wastewater treatment system (OWTS) and groundwater quality monitoring, which would reduce the impact to a less-than-significant level. Operation of the cemetery could also result in nitrogen levels that exceed the water quality standards for areas served by individual water wells. This would result in a potentially significant impact to groundwater quality. The EIR includes mitigation measures that would limit the rate of burials and require groundwater monitoring and response to changes in groundwater quality. Overall, project impacts related to hydrology and water quality would be **less than significant with implementation of mitigation measures.**
- ▲ **Noise.** Project construction activities would involve the use of heavy construction equipment that generates noise. Based on the construction noise modeling, mobile source noise levels would not exceed Santa Clara County standards of 75 A-weighted decibels (dBA) maximum noise levels (L_{max}) at nearby sensitive receptors. However, noise levels of stationary equipment could potentially exceed Santa Clara County standards of 60 dBA L_{max} . This is a potentially significant impact, and the EIR includes mitigation measures requiring noise reduction measures of stationary sources to reduce the impact to a less-than-significant level. Regarding ground vibration, based on reference ground vibration and noise levels, large dozer

activities (the most likely piece of equipment on the site to cause substantial vibration) would not exceed the recommended levels for structural damage or human disturbance at the nearby structures. With respect to project operation, traffic noise generated by the project would not result in a substantial increase (i.e., 3 dB) in noise on Monterey Road. Other operational noise sources associated with implementation of the project would include indoor activities (daily prayer, youth Sunday classes, potluck dinners, special events) and outdoor activities (annual youth summer camp, and playground activities), which would be limited to daytime hours. Parking lot activity could extend into hours covered by the County's nighttime noise standards (before 7:00 a.m. and after 10:00 p.m.). Mitigation is required that would prohibit parking near adjacent residential properties during these hours. Amplified outdoor sound and outdoor call to prayer are not proposed. Project-generated on-site noise levels would not exceed applicable noise standards and, therefore, would not result in a substantial increase in noise levels at nearby existing noise-sensitive receptors. Overall, project impacts related to noise would be **less than significant with implementation of mitigation measures**.

- ▲ **Transportation and Circulation.** Short-term traffic generated during construction of the Cordoba Center would be attributable to delivery trucks and construction workers' trips to and from the site. These trips would be temporary and would occur over a roughly 4-year period. All roadways and intersections affected by project-related construction traffic would operate at acceptable levels of service (LOS). During project operation, Monterey Road would operate at LOS B with the addition of traffic generated by the Cordoba Center. Further, the proposed driveway would operate at or above the County's threshold of LOS E, and vehicles queues are not anticipated. Based on review of concept plans, roadway hazards may be associated with the project driveway or internal project roadways. The project's access driveway and internal roadways would be designed to County standards (including width and turning radius requirements for safe access by emergency vehicles). This would avoid the potential for the driveway to impede emergency access. However, traffic safety hazards may be associated with sight distances on southbound Monterey Highway and project landscaping, which may limit views of oncoming traffic on Monterey Road, with vehicles slowing on Monterey Road to turn into the site, and with vehicles turning right out of the project driveway into the travel lane. These potential roadway conditions could result in a potentially significant traffic hazard impact that would be addressed in final project design. The EIR includes mitigation measures requiring inclusion of traffic safety improvements to the site plan, which would minimize the potential traffic safety impact. The project would not conflict with existing plans and policies regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Overall, project impacts related to traffic would be **less than significant with implementation of mitigation measures**.
- ▲ **Greenhouse Gas Emissions and Energy.** Project-related construction would generate approximately 319 metric tons of carbon dioxide-equivalent per year (MT CO_{2e}) and project operation would generate approximately 1,165 MT CO_{2e} per year at project buildout in 2021. This level of GHG emissions would result in a considerable contribution to cumulative emissions related to global climate change and conflict with State greenhouse gas (GHG) reduction targets established for 2030. This cumulative impact would be significant and the project's contribution would be considerable. Mitigation measures are recommended, including emissions reduction, energy efficiency, renewable energy, and carbon credit purchase. Regarding the potential for wasteful energy consumption, the project would increase electricity and natural gas consumption at the site relative to existing conditions. The project would be required to meet the California Code of Regulations Title 24 standards for building energy efficiency. Implementation of mitigation measures addressing GHGs and transit needs would also improve the energy efficiency of the project. Construction energy consumption would be temporary and would not require additional capacity or increased peak or base period demands for electricity or other forms of energy. However, because of the current uncertainty over what the applicable threshold is for a project of this type due to the transition in regulatory standards, and given uncertainty over whether GHG reductions through current offset programs are reliable and verifiable, it cannot be guaranteed that the project would not generate GHG emissions that conflict with CARB's proposed 2017 Scoping Plan Update and the established statewide GHG reduction targets it is designed to achieve. Therefore, project impacts related to GHG emissions would be **significant and unavoidable**.

As discussed above, CEQA's primary purpose for identifying alternatives is to find feasible alternatives to a project that meet most of the primary objectives and avoid or substantially lessen any of the significant effects of the project (Section 15126.6[a]). In this case, the only significant and unavoidable impact is associated with uncertainty regarding the applicable GHG threshold is for a project of this type and whether GHG reductions through current offset programs are a reliable and verifiable method of mitigation. This uncertainty cannot be fully addressed through alternative project design. The potentially significant effects on the environment identified in the EIR also represent candidate impacts to reduce through consideration of feasible alternatives.

6.3 ALTERNATIVES DISMISSED FROM DETAILED EVALUATION

6.3.1 Off-site Alternative

The possibility of an off-site location was considered as an alternative to the project; however, the applicant does not currently hold vacant property that could be feasibly developed with a project that would meet the primary project objectives. This alternative is infeasible and is dismissed from further consideration in this Draft EIR.

6.3.2 Residential Land Use Alternative

The *Santa Clara County General Plan* (Santa Clara County 1994) designates the site Rural Residential. An alternative was considered that would develop a rural residential use on the property. However, a residential use would not meet any of the project objectives because it is a different land use that does not include any worship or community gathering facilities. For this reason, the alternative is dismissed from further consideration in this Draft EIR.

6.4 EVALUATION OF ALTERNATIVES

The following alternatives to the project are evaluated in detail, as described below:

- ▲ **Alternative 1: No Project Alternative.** This alternative assumes that no development would occur on the project site and that it would remain in an undeveloped state into the foreseeable future.
- ▲ **Alternative 2: Local-Serving Threshold Alternative.** This alternative involves the development of a much smaller religious center that meets the 75th percentile value for building floor area and people in the County's *Local Serving Data* document, which is part of the local-serving use determination for institutional uses set forth by the Zoning Ordinance (Section 2.20.090).
- ▲ **Alternative 3: 25 Percent Reduced Intensity Alternative.** This alternative involves a 25 percent reduction in the size of the proposed building footprints of the mosque and the community center and associated facilities, and a reduction in the projected number of attendees.
- ▲ **Alternative 4: 50 Percent Reduced Intensity Alternative.** This alternative involves a 50 percent reduction in the size of the proposed building footprints of the mosque and the community center and associated facilities, and a reduction in the projected number of attendees.

For each alternative, a brief discussion of its principal characteristics is followed by an analysis of the alternative. The emphasis of the analysis is on a determination of whether or not the alternative would reduce, eliminate, or create new significant impacts, as well as the alternative's relative beneficial effects compared to the project and how well the alternative meets each of the project objectives.

6.4.1 Alternative 1: No Project Alternative

State CEQA Guidelines Section 15126.6(e) (1) requires that the no project alternative be described and analyzed “to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project.” The no project analysis is required to discuss “the existing conditions at the time the notice of preparation is published...as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services” (Section 15126.6[e][2]). Specific to development projects, the CEQA Guidelines state:

If the project is... a development project on identifiable property, the ‘no project’ alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this ‘no project’ consequence should be discussed. In certain instances, the no project alternative means ‘no build’ wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project’s non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment. (Section 15126[e][3][B].)

In this case, there are no other applications submitted that would result in development of the project site; therefore, the No Project Alternative assumes that no development would occur on the project site and that it would remain in an undeveloped state into the foreseeable future. (It should be noted, although not assumed in this alternative, that the project site is zoned Rural Residential and thus a single-family house could be developed on the project site in the future.)

AESTHETICS AND VISUAL RESOURCES

Under the No Project Alternative, the project site would remain undeveloped. By contrast, the project would change the existing visual character of the site by adding several structures and associated facilities. Because the project would be required to meet County design standards and would include tree plantings to obstruct visibility of the structures from the most prominent viewpoints, the project’s overall impact to aesthetics and visual resources is less-than-significant. However, because the proposed project would require mitigation to reduce impacts on the existing visual character of the site to less than significant, while the No Project Alternative would leave the site undeveloped, aesthetic impacts would be *slightly less* under this alternative compared to the project.

BIOLOGICAL RESOURCES

The No Project Alternative would result in no physical changes to the project site. Therefore, the No Project Alternative would result in no impact on potential special-status species or their habitat. Construction activities associated with the project could potentially result in significant impacts to special-status species. Mitigation measures included in the EIR would minimize the project’s impacts to a less-than-significant level. Compared to the project’s impact, the No Project Alternative’s impact on biological resources would be *slightly less*.

CULTURAL RESOURCES

No construction activities would occur under the No Project Alternative; therefore, no impact would occur related to cultural resources. Compared to the No Project Alternative, the project involves grading and other construction activities that could potentially adversely affect unknown paleontological, historical, or archaeological resources. The EIR includes mitigation measures to minimize the potential for impacts to a less-than-significant level. The No Project Alternative would therefore result in *slightly less* impact than the project.

HYDROLOGY AND WATER QUALITY

Under the No Project Alternative, no development would occur on the site. Because the alternative would require no construction or operation of any development, the No Project Alternative would result in no impact related to flooding or to surface water or groundwater quality. The project, when compared to the No Project Alternative, would not increase flood risk. The project would also adhere to required standards for minimizing erosion and sedimentation during construction activities, as well as standards for handling hazardous materials during construction and operation. However, regarding groundwater, the proposed OWTS, as currently configured, and proposed cemetery could result in potentially significant impacts to groundwater quality. The EIR includes mitigation measures to revise the wastewater disposal plan design, modify the OWTS, monitor groundwater quality, and limit burials. Implementation of these measures would reduce impacts to a less-than-significant level. Compared to the project, the No Project Alternative would result in *slightly less* impact.

NOISE

The No Project Alternative would not generate any additional noise because it requires no construction or operation of a development; the project site would remain undeveloped for the foreseeable future. Project construction would require use of heavy equipment. Noise from mobile equipment would not substantially affect nearby sensitive receptors (residents); however, noise from stationary equipment, if placed in proximity to sensitive receptors, could generate noise levels that exceed County standards. The EIR includes mitigation measures to minimize these noise impacts. Operation of the project would not generate substantial noise, and impacts would be less than significant. It should be noted that, although the EIR identifies parking restrictions to mitigate potential exceedance of County nighttime noise standards, the County standards are low (45 dBA), apply at the residential property lines (which in the case of the nearby residences is far from the house or exterior gathering areas), and are exceeded by fewer than 3 dBA prior to mitigation. Therefore, with respect to actual nighttime noise perceived at sensitive receptor locations, the No Project Alternative may be similar to the proposed project. However, overall, because the No Project Alternative would result in no impact related to noise, it would result in *slightly less* impact than the project.

TRANSPORTATION AND CIRCULATION

No traffic would be generated under the No Project Alternative. The project would generate new traffic, but would not result in substantial deterioration of the roadway or intersection level of service in the area. The project's internal circulation and access could result in potentially significant impacts related to safety. The EIR includes mitigation measures requiring site plan revisions that would minimize these impacts to a less-than-significant level. Therefore, relative to the project, the No Project Alternative would result in *slightly less* impact.

GREENHOUSE GAS EMISSIONS AND ENERGY

The No Project Alternative includes no development on the project site and therefore results in no energy use and no GHG emissions beyond current levels. The project would use energy and would generate GHG emissions. Mitigation measures included in the EIR would result in reduction of GHG emissions using on-site measures and requiring purchase of off-site credits. With implementation of mitigation, the project's impact would be less than significant. Compared to the project, the No Project Alternative would result in *slightly less* impact related to GHG emissions and energy.

6.4.2 Alternative 2: Local-Serving Threshold Alternative

This alternative would involve development of a religious center proposed at the 75th percentile value in the County's *Local Serving Data* document (adopted by the Board of Supervisors on October 20, 2015), which is part of the local-serving use determination set forth by the Zoning Ordinance (Section 2.20.090). As identified in the *Local Serving Data* document, for Institutional Uses within the Rural Residential (RR) District, the 75th

percentile daily attendance is 50 people, event attendance is 220 people, and the 75th percentile floor area is 6,150 square feet (s.f.). Therefore, the Local-Serving Threshold Alternative includes a religious center that is 6,150 s.f. and is attended by 50 people on a day-to-day basis, and by 220 people on an event basis. The primary structures associated with the project—the mosque, community building, and camp restrooms—have a combined floor area of nearly 24,000 s.f. Therefore, the alternative’s religious center structure(s) would be nearly 75 percent smaller than the project. This alternative assumes the same accessory uses as the project (i.e., maintenance building, caretaker residence, cemetery, summer camp), although some facilities, such as parking and recreational areas, would be commensurately smaller (75 percent) than the project. Although this alternative would feasibly attain most of the basic objectives of the project, it does not appear to meet the project proponent’s objective of sizing the facilities to accommodate attendance projections for the growing SVIC community through 2030 because of the much smaller size and much lower level of visitation.

AESTHETICS AND VISUAL RESOURCES

The Local-Serving Threshold Alternative would involve development of structures on the project site; however, the structures would be substantially smaller than the project. The project requires mitigation measures (a landscape plan identifying evergreen trees to screen structures) to reduce the project’s potential visual impacts. The structures associated with this alternative would be substantially smaller and would, therefore, be less conspicuous. Depending on the specific placement and orientation of the structures under this alternative, tree screening mitigation may not be necessary. Therefore, even though the project’s impact is reduced to a less-than-significant level with tree screening mitigation, because the Local-Serving Threshold Alternative could eliminate the need for the mitigation, and because views of the interior of the site would generally be preferable to views of trees, impacts associated with the Local-Serving Threshold Alternative would be *slightly less* than the proposed project.

BIOLOGICAL RESOURCES

Less ground disturbance would be necessary under the Local-Serving Threshold Alternative, compared to the project, because of the alternatives’ smaller development footprint for the structures. However, even though the alternative’s development footprint would be smaller, construction activities associated with development of the alternative would likely result in similar potential for impacts to special-status plant and wildlife species and would require similar mitigation measures to reduce impacts. Therefore, the Local-Serving Threshold Alternative would result in a *similar* impact compared to the project.

CULTURAL RESOURCES

Because the Local-Serving Threshold Alternative would include a smaller development footprint for structures, less ground disturbance would likely be necessary compared to the project. However, construction activities associated with development of the alternative would likely result in similar potential for impacts to unknown paleontological and archaeological resources and would require similar mitigation measures to reduce impacts. Therefore, the Local-Serving Threshold Alternative would result in a *similar* impact compared to the project.

HYDROLOGY AND WATER QUALITY

The Local-Serving Threshold Alternative would include development of the site with smaller structures. The alternative would not increase flood potential. Similar to project-related construction activities, the construction activities associated with the alternative would be required to meet standards to limit erosion and prevent stormwater pollution. The alternative would require an OWTS, but it would be smaller than the project’s proposed OWTS. This alternative would also include a cemetery. Due to the reduced size of the project, it is possible that mitigation measures related to the OWTS would not be necessary. However, it is likely that similar impacts would occur and similar mitigation measures related to groundwater quality would be required. Overall, the Local-Serving Threshold Alternative’s impacts related to hydrology and water quality would be *similar* to the project.

NOISE

The smaller structures and development footprint associated with the Local-Serving Threshold Alternative would involve a reduced level of construction compared to the project. Construction noise generated by the alternative would likewise be somewhat reduced; however, depending on placement of structures relative to existing sensitive receptors, similar mitigation measures may be required for stationary noise sources. The Local-Serving Threshold Alternative would result in imperceptibly less traffic noise and also slightly less noise generated from inside and outside the structure during events; however, the project's impacts with respect to these operational noise impacts would be less-than-significant with implementation of parking restriction mitigation to meet the County's nighttime noise standards, and any slight reduction associated with the alternative would not be meaningful. Overall, the noise impacts associated with the Local-Serving Threshold Alternative would be *similar* to the project.

TRANSPORTATION AND CIRCULATION

Although the Local-Serving Threshold Alternative would generate fewer vehicle trips than the proposed project, the proposed project would result in a less-than-significant impact related to roadway and intersection LOS. Therefore, this alternative would have a similar LOS impact compared with the proposed project. This EIR identified mitigation measures requiring improvements to ensure safe operation of the intersection of the driveway with Monterey Road. Although traffic volumes would be less under this alternative, use of the same driveway would likely require similar mitigation. Overall, impacts related to transportation and circulation are *similar* between the Local-Serving Threshold Alternative and the project.

GREENHOUSE GAS EMISSIONS AND ENERGY

With smaller structures and fewer attendees, the Local-Serving Threshold Alternative would consume less energy, involve fewer vehicle miles traveled (VMT), and would therefore result in lower GHG emissions than the project. However, this alternative would still likely require mitigation measures to reduce GHG emissions. As described above, the primary structure(s) associated with the alternative would be one-fourth the size of the proposed primary structures. Assuming that GHG emissions would be commensurately smaller, the alternative's GHG emissions would total 293 MT CO₂e/year, which would not exceed the adjusted 2030 bright line threshold of 660 MT CO₂e/year, but would still exceed the 19.6 MT CO₂e/year adjusted service population threshold (2.8 MT/SP/year x 7 service population). Although it is likely that less mitigation would be required, the Local-Serving Threshold Alternative's overall impact is considered *similar* to the project.

6.4.3 Alternative 3: 25 Percent Reduced Intensity Alternative

Similar to Alternative 2, Local-Serving Threshold Alternative, the 25 Percent Reduced Intensity Alternative involves a reduction in the size of the proposed building footprints of the mosque and the community center and a reduction in the projected number of attendees, but not to the same degree as Alternative 2. Alternative 3 would reduce the intensity of development by 25 percent. Under the 25 Percent Reduced Intensity Alternative, the total floor area of the mosque and community center buildings would be reduced to 17,615 s.f. (from the proposed 23,486 s.f.). Typical attendance of daily dawn, mid-day, and late afternoon prayers would be 75 to 113 individuals with as many as 375 attendees at the largest special events, which would occur twice per year. It is assumed that the overall site layout would be similar to the project and the accessory uses (cemetery, campground, maintenance building, playground, and caretaker residence) would not change substantially. Although this alternative would not necessarily provide facilities sized to accommodate full attendance projections for the growing SVIC community through at least 2030, it would feasibly attain most of the basic objectives of the project.

AESTHETICS AND VISUAL RESOURCES

The 25 Percent Reduced Intensity Alternative would involve development of structures on the project site that would be 75 percent as large as the proposed structures. The project would result in less-than-significant impacts related to aesthetics and visual resources with implementation of mitigation measures requiring a landscape plan incorporating adequate tree screening. Although the structures associated with this alternative would be slightly smaller, the mitigation measure would still likely be necessary. Therefore, even though the structures under the 25 Percent Reduced Intensity Alternative would be somewhat smaller, the impact would be substantially *similar* to the project.

BIOLOGICAL RESOURCES

Slightly less ground disturbance may be necessary under the 25 Percent Reduced Intensity Alternative, compared to the project, because of the alternative's slightly smaller development footprint for the structures. However, even though the alternative's development footprint would be smaller, construction activities associated with development of the alternative would likely result in similar potential for impacts to special-status plant and wildlife species and would require similar mitigation measures to reduce impacts. Therefore, the 25 Percent Reduced Intensity Alternative would result in a *similar* impact compared to the project.

CULTURAL RESOURCES

Due to the alternative's slightly smaller development footprint for the structures, marginally less ground disturbance may be necessary under the 25 Percent Reduced Intensity Alternative compared to the project. However, even though the alternative's development footprint would be smaller, construction activities associated with development of the alternative would likely result in similar potential for impacts to unknown paleontological and archaeological resources and would require similar mitigation measures to reduce impacts. Therefore, the 25 Percent Reduced Intensity Alternative would result in a *similar* impact compared to the project.

HYDROLOGY AND WATER QUALITY

The 25 Percent Reduced Intensity Alternative would develop the site with 25 percent smaller structures. The alternative would not increase flood potential. Similar to project-related construction activities, the construction activities associated with the alternative would be required to meet standards to limit erosion and prevent stormwater pollution. The alternative would require an OWTS, but it would likely be slightly smaller than the proposed OWTS. This alternative would also include a cemetery similar in size to the project. Mitigation measures related to the OWTS may be necessary for the alternative, depending on the alternative's disposal and treatment system design. The alternative would likely result in similar impacts related to the on-site cemetery, and similar mitigation measures would be required to protect groundwater quality. Overall, the 25 Percent Reduced Intensity Alternative's impacts related to hydrology and water quality would be *similar* to the project.

NOISE

The 25 Percent Reduced Intensity Alternative would involve a slightly reduced level of construction compared to the project, because of 25 percent smaller structures and associated development footprints. Construction noise generated by the alternative would likely be similar and would require similar mitigation measures for stationary equipment. The 25 Percent Reduced Intensity Alternative would result in imperceptibly less traffic noise and also slightly less noise generated from inside and outside the structure during events and daily operation; however, the project's impacts with respect to these operational noise impacts would be less-than-significant with implementation of parking restriction mitigation to slightly reduce nighttime noise at residential property lines to meet County standards, and any slight reduction associated with the alternative would not be meaningful. Overall, the noise impacts associated with the 25 Percent Reduced Intensity Alternative would be *similar* to the project.

TRANSPORTATION AND CIRCULATION

The 25 Percent Reduced Intensity Alternative would generate 25 percent fewer vehicle trips than the proposed project. The project would result in a less-than-significant impact related to roadway and intersection LOS. Therefore, this alternative would have a similar LOS impact compared with the proposed project. The EIR identified mitigation measures requiring improvements to ensure safe operation of the intersection of the driveway with Monterey Road. Although traffic volumes would be less under this alternative, use of the same driveway would likely require similar mitigation. Overall, impacts related to transportation and circulation would be *similar* between the 25 Percent Reduced Intensity Alternative and the project.

GREENHOUSE GAS EMISSIONS AND ENERGY

With smaller structures and fewer attendees, the 25 Percent Reduced Intensity Alternative would consume less energy, involve fewer VMT, and would therefore result in lower GHG emissions than the project. However, mitigation measures would still likely be required to reduce GHG emissions. As described above, the primary structure(s) associated with the alternative would be almost 25 percent smaller than the proposed structures. Assuming that GHG emissions would be commensurately smaller, the alternative's GHG emissions would total 884 MT CO_{2e}/year, which still exceeds both the adjusted 2030 bright line threshold of 660 MT CO_{2e}/year, and the 19.6 MT CO_{2e}/year adjusted service population threshold. Similar mitigation would be required; therefore, the 25 Percent Reduced Intensity Alternative's overall impact is considered *similar* to the project.

6.4.4 Alternative 4: 50 Percent Reduced Intensity Alternative

The 50 Percent Reduced Intensity Alternative involves a reduction in the size of the proposed building footprints of the mosque and the community center and a reduction in the projected number of attendees, not to the same degree as Alternative 2, but to a greater degree than Alternative 3. Under the 50 Percent Reduced Intensity Alternative, the total floor area of the mosque and community center buildings would be reduced to 11,743 s.f. (from the proposed 23,486 s.f.). Typical attendance of daily dawn, mid-day, and late afternoon prayers would be 50 to 75 individuals with as many as 250 attendees at the largest special events, which would occur twice per year. It is assumed that the overall site layout would be similar to the project and the accessory uses (cemetery, campground, maintenance building, and playground) would be somewhat smaller (except that the caretaker residence would be of similar size). Although this alternative would feasibly attain most of the basic objectives of the project, it does not appear to meet the project proponent's objective of sizing the facilities to accommodate attendance projections for the growing SVIC community through 2030 because of the much smaller size and much lower level of visitation.

AESTHETICS AND VISUAL RESOURCES

The 50 Percent Reduced Intensity Alternative would involve development of structures on the project site that would be 50 percent as large as the proposed structures. The project would result in less-than-significant impacts related to aesthetics and visual resources with implementation of mitigation measures requiring a landscape plan incorporating adequate tree screening. The structures associated with this alternative would be smaller; therefore, assuming appropriate placement, orientation, and design of the structures, the tree-screening mitigation measure may not be necessary. Maintaining views of the interior of the site would be visually preferable to substantial tree screening. Therefore, the impact would be *slightly less* compared to the project.

BIOLOGICAL RESOURCES

Less ground disturbance may be necessary under the 50 Percent Reduced Intensity Alternative compared to the project because of the alternative's smaller development footprint for the structures and accessory uses. However, even though the alternative's development footprint would be smaller, construction activities associated with development of the alternative would likely result in similar potential for impacts to special-status plant and wildlife species and would require similar mitigation measures to reduce impacts. Therefore, the 50 Percent Reduced Intensity Alternative would result in a *similar* impact compared to the project.

ARCHAEOLOGICAL, HISTORICAL, AND PALEONTOLOGICAL RESOURCES

Due to the alternative's smaller development footprint for the structures and accessory uses, less ground disturbance would be necessary under the 50 Percent Reduced Intensity Alternative compared to the project. However, even though the alternative's development footprint would be smaller, construction activities associated with development of the alternative would likely result in similar potential for impacts to unknown paleontological and archaeological resources and would require similar mitigation measures to reduce impacts. Therefore, the 50 Percent Reduced Intensity Alternative would result in a *similar* impact compared to the project.

HYDROLOGY AND WATER QUALITY

The 50 Percent Reduced Intensity Alternative would develop the site with 50 percent smaller structures. The alternative would not increase flood potential. Similar to project-related construction activities, the construction activities associated with the alternative would be required to meet standards to limit erosion and prevent stormwater pollution. The alternative would require an OWTS, but it would likely be smaller than the proposed OWTS. Mitigation measures related to the OWTS may be necessary for the alternative, depending on the alternative's disposal and treatment system design. The alternative would result in reduced impacts related to the on-site cemetery, and the same mitigation measures would be required to protect groundwater quality. Overall, the 50 Percent Reduced Intensity Alternative's impacts related to hydrology and water quality would be *similar* to the project.

NOISE

The 50 Percent Reduced Intensity Alternative would involve a reduced level of construction compared to the project, because of the 50 percent smaller structures and associated development footprints. Construction noise generated by the alternative would likely be similar and would require similar mitigation measures for stationary equipment. The 50 Percent Reduced Intensity Alternative would result in imperceptibly less traffic noise and also slightly (but not noticeably) less noise generated from inside and outside the structure during events and daily operation. The project's impacts with respect to nighttime operational noise impacts would be less-than-significant with implementation of parking restriction mitigation to slightly reduce nighttime noise at residential property lines to meet County standards, and any slight reduction associated with the alternative would not be meaningful. Overall, the noise impacts associated with the 50 Percent Reduced Intensity Alternative would be *similar* to the project.

TRANSPORTATION AND CIRCULATION

The 50 Percent Reduced Intensity Alternative would generate 50 percent fewer vehicle trips than the proposed project. The project would result in a less-than-significant impact related to roadway and intersection LOS. Therefore, this alternative would have a similar LOS impact compared with the proposed project. The EIR identified mitigation measures requiring improvements to ensure safe operation of the intersection of the driveway with Monterey Road. Although traffic volumes would be less under this alternative, use of the same driveway would likely require similar mitigation. Overall, impacts related to transportation and circulation would be *similar* between the 50 Percent Reduced Intensity Alternative and the project.

GREENHOUSE GAS EMISSIONS AND ENERGY

With smaller structures and fewer attendees, the 50 Percent Reduced Intensity Alternative would consume less energy, involve fewer VMT, and would therefore result in lower GHG emissions than the project. However, mitigation measures to reduce GHG emissions would likely be required. As described above, the primary structure(s) associated with the alternative would be almost 50 percent smaller than the proposed structures. Assuming that GHG emissions would be commensurately smaller, the alternative’s GHG emissions would total 589 MT CO₂e/year, which would be below the adjusted 2030 bright line threshold of 660 MT CO₂e/year, but would still exceed the 19.6 MT CO₂e/year adjusted service population threshold. Similar mitigation would be required; therefore, the 50 Percent Reduced Intensity Alternative’s overall impact is considered *similar* to the project.

6.4.5 Comparative Evaluation of Environmental Effects

Table 6-1 summarizes the environmental analyses provided above for the project alternatives.

Table 6-1 Comparison of the Environmental Impacts of the Alternatives in Relation to the Project

Environmental Topic	Project	Alternative 1 No Project	Alternative 2 Local-Serving Threshold	Alternative 3 25 Percent Reduced Intensity	Alternative 4 50 Percent Reduced Intensity
Aesthetics and Visual Resources	LTSM	NI	LTS	LTSM	LTSM?
Biological Resources	LTSM	NI	LTSM	LTSM	LTSM
Archaeological, Historical, and Tribal Cultural Resources	LTSM	NI	LTSM	LTSM	LTSM
Hydrology and Water Quality	LTSM	NI	LTSM	LTSM	LTSM
Noise	LTSM	NI	LTSM	LTSM	LTSM
Transportation and Circulation	LTSM	NI	LTSM	LTSM	LTSM
Greenhouse Gas Emissions and Energy	SU	NI	SU	SU	SU

NI=No Impact LTS = Less Than Significant Impact LTSM = LTS with Mitigation SU = Significant and Unavoidable

Source: Data compiled by Ascent Environmental in 2017

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project Alternative would result in reduction in the degree of project-related impacts for all of the environmental issues, but would not avoid any significant impacts (because the project would not result in any significant impacts that cannot be minimized or avoided by implementation of identified mitigation measures). The No Project Alternative would be considered the Environmentally Superior Alternative. However, implementation of the No Project Alternative would not meet any project objectives. Also, implementation of the No Project Alternative would not satisfy the demand for a religious center to accommodate the attendance projections for the growing SVIC community; therefore, it is possible that a different religious center could be developed in a different location to meet this demand, which could result in impacts to the environment. Further discussion of such a development or associated impacts would be speculative, but it is useful to understand that with implementation of the No Project Alternative, the demand for the religious center would not be met, which could prompt development of another religious center elsewhere, which could result in unknown environmental impacts.

CEQA Guidelines Section 15126.6(e)(2) states that when the no project alternative is identified as the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives. As discussed above and shown in Table 6-1, all of the other alternatives

would, overall, result in similar impacts to the environment compared to the project (with Alternatives 2 and 4 resulting in slightly reduced aesthetic impacts after mitigation). However, even though the Local-Serving Threshold Alternative (Alternative 2) would result in substantially similar impacts, the much smaller structures and accessory uses would not require tree screening mitigation and would require substantially less ground disturbance. Although similar mitigation measures would be required to reduce impacts related to ground disturbance, the smaller development footprint might allow for greater avoidance of areas of the site that have the highest potential for special-status species occurrence/habitat. Also, in terms of general degree of impact, the smaller development footprint, combined with the reduction in traffic would produce fewer construction- and operations-related air quality, hydrology, and GHG emissions and would add fewer vehicles to local roadways. It may also eliminate the need to mitigate impacts related to visual resources and hydrology. However, the significant and unavoidable impact related to GHG emissions may not be resolved through this alternative design. Because this impact is rooted in uncertainty regarding the applicable threshold for a project of this type and whether GHG reductions through current offset programs are a reliable and verifiable method of mitigation, impacts would continue to be considered significant and unavoidable. Therefore, although the Local-Serving Threshold Alternative would not eliminate most of the mitigation measures needed for the project or avoid the significant impact associated with GHGs, it would, overall, result in less initial impact and, therefore, would be less dependent on mitigation measures for reduction of overall impact. For these reasons, the Local-Serving Threshold Alternative is considered environmentally superior. It should be noted that although this alternative would feasibly attain most of the basic objectives of the project, it does not appear to meet the project proponent's objective of sizing the facilities to accommodate attendance projections for the growing SVIC community through 2030 because of the much smaller size and much lower level of visitation.

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Chapter 5, Additional Analysis

No references were used.

Chapter 6, Project Alternatives

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