Evergreen Valley College
2025 Updated Facilities Master Plan

Draft Environmental Impact Report
SCH No. 2000112004

February 2013

Volume I

Prepared for:

San José/Evergreen Community College District,
4750 San Felipe Road,
San José, California 95135

Prepared By:

Impact Sciences, Inc.
555 12th Street, Suite 1650
Oakland, California 94607

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1.0 INTRODUCTION

This Environmental Impact Report (EIR) has been prepared to provide an assessment of the potentially significant environmental effects from the implementation of the 2025 Updated Facilities Master Plan (FMP) for the Evergreen Valley College (EVC) campus and two minor additional projects on the campus not listed in the plan.[1] As required by the California Environmental Quality Act (CEQA), this Draft EIR (1) assesses the potentially significant environmental effects of the proposed project, including cumulative impacts of the proposed project in conjunction with other reasonably foreseeable development; (2) identifies feasible means of avoiding or substantially lessening significant adverse impacts; and (3) evaluates a range of reasonable alternatives to the proposed project, including the No Project Alternative.

The San José/Evergreen Community College District (SJECCD) is the "lead agency" for the 2025 Updated FMP evaluated in this Draft EIR. The Board of Trustees (Board) of the SJECCD has the principal responsibility for approving the 2025 Updated FMP.

1.1 PURPOSE OF THIS EIR

SJECCD has commissioned this EIR on the 2025 Updated FMP for the following purposes:

- To inform the general public; the local community; and responsible, trustee, and other public agencies of the nature of the proposed project, their potentially significant environmental effects, feasible measures to mitigate those effects, and reasonable and feasible alternatives to the proposed project;
- To enable the SJECCD to consider the environmental consequences of approving the 2025 Updated FMP;
- For consideration by responsible agencies in issuing permits and approvals for the proposed project; and
- To satisfy CEQA requirements.

As described in CEQA and the *2013 State CEQA Guidelines*, public agencies are required to avoid or substantially lessen significant environmental effects of a project where feasible. A public agency has an obligation to balance the potential significant effects on the environment due to implementation of a proposed project with its benefits, including economic, social, technological, legal, and other benefits. This Draft EIR is an informational document, the purpose of which is to identify the potentially

[1] For brevity all the development occurring on campus, including the 2025 Updated FMP and the two additional projects are referred hereinafter as the 2025 Updated FMP or the proposed project.

significant effects of the proposed project on the environment and to indicate the manner in which those significant effects can be avoided or lessened; to identify any significant and unavoidable adverse impacts that cannot be mitigated; and to identify reasonable and feasible alternatives to the proposed project that would eliminate any significant adverse environmental effects or reduce the impacts to a less than significant level.

The lead agency is required to consider the information in the EIR, along with any other relevant information, in making its decisions on the proposed project. Although the EIR does not determine the ultimate decision that the Board of Trustees (BOT or the Board) will make regarding implementation of the proposed project, CEQA requires the SJECCD to consider the information in the EIR and make findings regarding each significant effect identified in the EIR. If the Board determines the EIR to be adequate, it will certify the Final EIR prior to authorizing the implementation of the 2025 Updated FMP. Other agencies may also use this EIR in their review and approval processes.

1.2 SUMMARY OF THE PROPOSED FACILITIES MASTER PLAN PROJECT

The 2025 Updated FMP addresses the facility needs of the EVC campus to meet anticipated enrollment through 2025. The 2025 Updated FMP involves reorganization of campus facilities and reconfiguration of campus access and circulation. Activities outlined in the 2025 Updated FMP include the demolition/removal of existing buildings on campus, the construction of new buildings, and the renovation of existing buildings In addition, the 2025 Updated FMP includes recommended vehicle and pedestrian circulation plans for the campus and recommended landscape improvements. The two minor additional projects on the campus not listed in the 2025 Updated FMP include the installation of prefabricated metal covers over the existing corporation yard and a portion of the District Warehouse parking lot and bleachers on the eastern side of the soccer field.

1.3 ENVIRONMENTAL REVIEW PROCESS

SJECCD has filed a Notice of Completion (NOC) with the Governor's Office of Planning and Research, State Clearinghouse indicating that this Draft EIR has been completed and is available for review and comment by the public.

This Draft EIR is available for review by the public and interested parties, agencies, and organizations for a review period of 45 days. In reviewing the Draft EIR, reviewers should focus on the document's adequacy in identifying and analyzing significant effects on the environment and ways in which the significant effects of the proposed project might be avoided or mitigated. To ensure inclusion in the Final EIR and full consideration by the SJECCD, comments on the Draft EIR must be received during the public review period, which ends at 5:00 PM on March 25, 2013. Written comments on the EIR may be sent to:

Evergreen Valley College
3095 Yerba Buena Road
San Jose, California 95135

Attention: Henry Gee, Vice President, Administrative Services
Email: henry.gee@evc.edu

SJECCD will accept e-mail comments in lieu of traditional mailed comments; nevertheless, reviewers are encouraged to follow up on any e-mail comments with letters. Following the close of the review period, responses to comments on the Draft EIR will be prepared and published in a separate document. The Draft EIR text and appendices, together with responses to comments and any text changes made to the original Draft EIR will constitute the Final EIR.

The BOT will review the Final EIR for 2025 Updated FMP for adequacy and consider it for certification pursuant to the requirements of Section 15090 of the *2013 State CEQA Guidelines*. If the Board certifies the Final EIR, it will then consider approving or denying the implementation of the 2025 Updated FMP. If the Board chooses to approve the implementation of the 2025 Updated FMP, findings on the feasibility of reducing or avoiding significant environmental effects will be made and, if necessary, a Statement of Overriding Considerations will be prepared. SJECCD will also prepare and file a Notice of Determination (NOD) with the State Clearinghouse. The NOD will include a description of the proposed project, the date of approval, an indication of whether the Findings were prepared and a Statement of Overriding Considerations was adopted, and the address where the Final EIR and the record of project approval are available for review.

1.3.1 Type of EIR

This is a Program EIR that has been prepared for the 2025 Updated FMP, pursuant to Section 15168 of the *2013 State CEQA Guidelines.* The 2025 Updated FMP is a plan that will guide the physical development of the EVC campus through 2025. Numerous individual projects will be built on the campus in the next 13 years, guided by this plan. The program-level analysis addresses the effects of the maximum growth and development under this plan. A Program EIR is the appropriate environmental document for a series of actions that can be characterized as a single project.

Where possible, the individual development projects planned as part of the 2025 Updated FMP as well as the two minor projects separately proposed by SJECCD have been described at a level of detail sufficient to allow project-level assessment of their potential impacts. This EIR will therefore also serve as a project-level EIR for these individual projects, which are identified in **Section 3.0, Project Description**. It is anticipated that this EIR will provide the basis for a decision by the BOT to approve or deny these individual projects without the need for further environmental review at the time they are proposed for implementation.

1.3.2 Public and Agency Review

On July 10, 2012, a Notice of Preparation (NOP) was published for the EVC 2025 Updated FMP EIR. The 30-day comment period ended on August 8, 2012. The NOP and all comments received on the NOP are included in **Appendix 1.0**.

An EIR scoping meeting was held at EVC on July 31, 2012, to inform the public and interested agencies of the proposed project, solicit comments, and identify areas of concern.

This Draft EIR and the 2025 Updated FMP are available on the web at http://www.sjeccd.org. The Draft EIR and the 2025 Updated FMP are also available for review at the following locations:

Evergreen Valley College
3095 Yerba Buena Road
San Jose, California 95135
Contact: Henry Gee, Vice President, Administrative Services

Evergreen Valley College Library, Reference Desk
3095 Yerba Buena Rd
San José, California 95135

Evergreen Branch Library, Reference Desk
2635 Aborn Road
San José, California 95121

1.3.3 Intended Uses of this EIR

This document serves two purposes. The BOT will use this EIR to evaluate the environmental implications of implementing the 2025 Updated FMP for the future development of the campus as well as for the approval of certain specific projects on the campus. Secondly, this document may be used as a source of information by responsible agencies with permitting or approval authority over the 2025 Updated FMP.

1.4 SCOPE OF THIS EIR

SJECCD completed an Initial Study for the 2025 Updated FMP to determine if the project may have a significant effect on the environment, as described in Section 15063 of the 2013 *State CEQA Guidelines*. The Initial Study found that the proposed project may have a significant effect on the environment and the SJECCD determined that an EIR was necessary and, as discussed above, published an NOP on July 10, 2012. Based on the Initial Study and the comments received at the scoping meeting and in response to the NOP, it was determined that the EIR would evaluate the following environmental topics in further detail:

- Aesthetics
- Air Quality
- Biological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services (including Recreation)
- Transportation and Traffic
- Utilities and Service Systems

1.5 REPORT ORGANIZATION

This Draft EIR is organized into two volumes. **Volume 1** consists of the following sections:

Section 1.0, Introduction, provides an introduction and overview describing the purpose and scope of topics addressed in this Draft EIR and the environmental review process.

Section 2.0, Executive Summary, presents a brief description of the proposed project, summarizes environmental consequences that would result from the implementation of the 2025 Updated FMP, provides a summary table that denotes anticipated significant environmental impacts, describes identified mitigation measures, and indicates the level of significance of impacts before and after mitigation. In addition, this section presents a brief description of alternatives to the 2025 Updated FMP and provides a table comparing each of the alternatives to the proposed project.

Section 3.0, Project Description, describes the 2025 Updated FMP including facilities proposed for demolition/removal, facilities proposed for new construction, and facilities proposed for renovation. In addition, this section describes site improvements with regard to vehicular circulation, pedestrian circulation, and landscaping. It also describes the two minor improvement projects proposed by SJECCD that are not part of the 2025 Updated FMP.

Section 4.0, Environmental Impact Analysis, describes the environmental setting, including applicable plans and policies for each environmental topic identified above; provides an analysis of the significant environmental impacts of the 2025 Updated FMP; and identifies mitigation measures to reduce their magnitude.

Section 5.0, Alternatives, summarizes alternatives to the 2025 Updated FMP and the comparative environmental consequences and benefits of each alternative. This section includes an analysis of the No Project Alternative, among others, as required by CEQA.

Section 6.0, Other CEQA Considerations, provides a discussion of the 2025 Updated FMP's significant and unavoidable impacts and significant irreversible environmental changes, and the potential for growth inducement.

Section 7.0, List of Preparers, provides a list of the individuals involved in the preparation of this EIR.

Volume 2 consists of the Appendices to the Draft EIR; it can be found on a CD located inside the back cover of Volume 1.

2.0 EXECUTIVE SUMMARY

2.1 PURPOSE

This Environmental Impact Report (EIR) provides an assessment of the potentially significant environmental effects that could result from the implementation of the 2025 Updated Facilities Master Plan (FMP) for the Evergreen Valley College (EVC) campus and two minor additional projects on the campus not listed in the plan.[1] This Executive Summary is intended to provide the decision makers, responsible agencies, and the public with a clear, simple, and concise description of the 2025 Updated FMP and its potential significant environmental impacts.

The *2013 California Environmental Quality Act (CEQA) Guidelines (*Section 15123) requires that a summary be included in an EIR that identifies all major conclusions, identifies each significant effect, recommended mitigation measure(s), and alternatives that would minimize or avoid potential significant impacts. The summary is also required to identify areas of controversy known to the lead agency, including issues raised by agencies and the public and issues to be resolved. These issues include the choice among alternatives and whether or how to mitigate significant effects. All of these requirements of an EIR summary are addressed in the sections below. This summary focuses on the major areas of importance in the environmental analysis for implementation of the 2025 Updated FMP and utilizes non-technical language to promote understanding. The San José/Evergreen Community College District (SJECCD) Board of Trustees is the CEQA lead agency for the 2025 Updated FMP.

2.2 PROJECT LOCATION

The EVC campus is located in east-central San José in Santa Clara County. The campus is near the eastern City boundary and is bounded by San Felipe Road to the west, Yerba Buena Road to the south, Montgomery Hill Park to the east, and Falls Creek Drive to the north. The campus encompasses about 158 acres.

The campus is in a suburban/rural setting that has undergone substantial commercial and residential development. Nearby residential uses are located to the north beyond Evergreen Creek, to the west beyond Thompson Creek, and to the south beyond Yerba Buena Road and Yerba Buena Creek. Nearby non-residential uses include Falls Creek Park to the north; Evergreen Park and a church to the south;

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1 The two minor projects consist of installing pre-fabricated metal covers over the existing corporation yard and along the southern boundary of the District Warehouse parking lot located along the northwestern border of the campus and bleachers on the eastern side of the soccer field on the south side of the campus. For brevity all the development occurring on the campus, including the 2025 Updated FMP and the two minor projects will be referred hereinafter as the 2025 Updated FMP or proposed project.

Montgomery Hill Park and undeveloped lands to the east; and an assisted-living facility across San Felipe Road to the west.

2.3 PROJECT DESCRIPTION

The 2025 Updated FMP addresses the facility needs of the EVC campus to meet anticipated enrollment through 2025. The current enrollment at EVC is about 11,980 fill-time and part-time students and enrollment is expected to reach approximately 14,840 students by 2025, an increase of about 2,860 students compared to existing conditions. Because of the number of students who do not attend college on a full-time basis, the projected 2025 enrollment level is equivalent to approximately 9,100 Full-Time Equivalent (FTE) students.

The 2025 Updated FMP involves reorganization of campus facilities and reconfiguration of campus access and circulation. Activities outlined in the 2025 Updated FMP include the demolition/removal of some of the existing buildings on the campus, the renovation of some of the existing buildings and the construction of a number of new buildings. In addition, the 2025 Updated FMP includes recommended vehicle and pedestrian circulation plans for the campus and recommended landscape improvements. Overall, existing buildings on the campus total approximately 344,900 square feet. After implementation of the 2025 Updated FMP, the total building space on the campus would increase by approximately 10,250 square feet to 355,150 square feet. See **Section 3.0, Project Description**, for further information about the building program identified in the 2025 Updated FMP.

2.4 PURPOSE AND NEED/OBJECTIVES OF THE PROPOSED PROJECT

The primary objectives of the 2025 Updated FMP and the individual projects it includes are:

- Keep pace with and anticipate the changing needs of the students and the communities served by the College
- Develop a Facilities Plan that supports the anticipated courses, programs and services of the College for the next decade, and to assure that the plan is flexible enough in design to accommodate changes in instructional methodology, technology, and delivery systems
- Update the existing campus and provide modern, attractive facilities appropriate for the instructional programs and support services offered
- Clarify and fix distinct identities of three main areas (hubs) on the campus
- Draw activity out of isolated clusters and into the pedestrian streets
- Visually connect the campus to the larger surroundings

- Establish a clear differentiation between the "front" and "rear" entrances to campus
- Create a vehicle-free inner campus

2.5 TOPICS OF KNOWN CONCERN

To determine which environmental topics should be addressed in the EIR for the proposed project, the SJECCD circulated a Notice of Preparation (NOP) in July 2012 in order to receive input from interested public agencies and private parties. A copy of that NOP and the Initial Study prepared for the proposed project are included in **Appendix 1.0** of this Draft EIR. Based on the Initial Study and comments received in response to the NOP, this Draft EIR addresses the following environmental topics in depth:

- Aesthetics
- Air Quality
- Biological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services (including Recreation)
- Transportation and Traffic
- Utilities and Service Systems

2.6 ISSUES TO BE RESOLVED/AREAS OF CONTROVERSY

This EIR addresses environmental issues associated with implementation of the 2025 Updated FMP that are known to the lead agency or were raised by other public agencies or interested parties during the EIR scoping process. To assist in addressing the scoping comments, the scoping comments that were received on the NOP and during the public scoping meeting for the proposed project are summarized in the appropriate environmental resource sections of this EIR. The introduction of each resource section summarizes the concerns expressed and addresses such concerns in the impact analysis section of that resource section. A complete list of scoping comments is presented in **Appendix 1.0**. The key issues to be resolved center on traffic including the scenarios and methodologies used in the preparation of the traffic study for the 2025 Updated FMP and implementation of Traffic Demand Management measures by the campus. All of these issues are addressed in the impact analysis in **Section 4.10** of this Draft EIR.

2.7 ALTERNATIVES

Consistent with CEQA requirements, a reasonable range of alternatives was evaluated that could feasibly avoid or lessen any significant environmental impacts while substantially attaining the basic objectives of the 2025 Updated FMP. The alternatives analyzed in detail in this Draft EIR are presented below.

2.7.1 Alternative 1: Reduced Enrollment Capacity

This alternative would increase campus enrollment by 2025 but the increase would be 50 percent of the increase under the proposed 2025 Updated FMP. Under the 2025 Updated FMP, enrollment would increase by approximately 2,860 students over the current enrollment level of about 11,980 students, reaching approximately 14,840 students by 2025. Under the Reduced Enrollment Capacity Alternative, enrollment would only increase by approximately 1,430 students over the current enrollment level, to about 13,410 students by 2025. Less building space would be needed to serve the student population under this alternative as compared to the proposed project. Under the 2025 Updated FMP a total of approximately 355,150 square feet of building space would be required to accommodate the projected student population by 2025, which is an increase of about 10,250 square feet above existing conditions. Under the Reduced Enrollment Capacity Alternative, approximately 320,930 square feet[2] of building space would be required to accommodate the projected student population by 2025, which is a decrease of about 23,970 square feet compared to existing conditions. Therefore, the overall extent and duration of construction activity under this alternative would be lower than required for the proposed project.

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2 Assuming the same ratio of students to building space as the 2025 Updated FMP, the amount of building space under the Reduced Enrollment Capacity Alternative would be 320,930 square feet based on a student population of 13,410.

2.7.2 Alternative 2: No Project/1999 Facilities Master Plan

Under the No Project Alternative, the 2025 Updated FMP would not be implemented. The EVC campus would not grow beyond the capacity of its existing facilities, as all the facilities approved under the Campus' 1999 Facilities Master Plan have been built. However, the Campus' previous plan did provide for an enrollment capacity of approximately 16,000 students. As a result, under the No Project Alternative, the enrollment capacity could increase by approximately 4,020 students over the current enrollment level of about 11,980 students.

The alternatives analysis concluded that the Reduced Enrollment Capacity Alternative is the environmentally superior alternative.

2.8 IMPACT SUMMARY

A detailed discussion regarding potential impacts of implementation of the 2025 Updated FMP is provided in **Section 4.0 Environmental Impact Analysis.** A summary of the impacts of the proposed project is provided in **Table 2.0-1, Summary of Impacts and Mitigation Measures**. Also provided in **Table 2.0-1** are mitigation measures that are proposed to avoid or reduce significant project impacts. The table indicates whether implementation of the recommended mitigation measures would reduce the impact to a less than significant level. **Table 2.0-2, Comparison of Alternatives to 2025 Updated Facilities Master Plan**, presents the environmental impacts of each alternative to allow the decision makers, agencies, and the public to compare and contrast these alternatives and weigh their relative merits and demerits.

Table 2.0-1
Summary of Impacts and Mitigation Measures

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.1 Aesthetics			
Impact AES-1		**Mitigation Measure AES-1**	
Implementation of the 2025 Updated FMP could substantially degrade the existing visual character or quality of the site and its surroundings.	Potentially significant	**MM AES-1:** Prior to the final design of each project, a landscape architect shall review the construction footprint of the project. All feasible measures, such as changes to the building footprint, shall be used to preserve and protect healthy mature trees. Trees that cannot be saved shall be considered for relocation or replaced with new trees (due to the costs of tree relocation, trees that cannot be saved would most likely be replaced).	Less than significant
Impact AES-2		**Mitigation Measure AES-2**	
Implementation of the 2025 Updated FMP would not create new sources of substantial light or glare which could adversely affect day or nighttime views in the area.	Less than significant	No mitigation is required	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.2 Air Quality			
Impact AQ-1		**Mitigation Measure AQ-1**	
Construction and operation of the facilities associated with implementation of the 2025 Updated FMP would generate emissions of fugitive dust and criteria air pollutants that would not exceed the BAAQMD significance thresholds.	Less than significant	No mitigation is required	Less than significant
Impact AQ-2		**Mitigation Measure AQ-2**	
Implementation of the 2025 Updated FMP would not expose on-campus and nearby sensitive receptors to substantial concentrations of toxic air contaminants.	Less than significant	No mitigation is required	Less than significant
Impact AQ-3		**Mitigation Measure AQ-3**	
Implementation of the 2025 Updated FMP would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under the federal and state ambient air quality standard.	Less than significant	No mitigation is required	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.3 Biological Resources			
Impact BIO-1		**Mitigation Measure BIO-1**	
The implementation of the 2025 FMP could have a substantial adverse effect on special-status wildlife species.	Potentially significant	**MM BIO-1a:** Prior to the implementation of any 2025 Updated FMP projects that would disturb undeveloped portions of Montgomery Hill, a burrowing owl habitat evaluation shall be conducted of the disturbance footprint and a surrounding 500-foot area. If it is determined that habitat conditions are not suitable for burrowing owl at the time of the habitat evaluation (taking into consideration factors such as height and density of vegetation and absence of suitable small mammal burrows), then no further actions would be required. If it is determined that suitable burrowing owl habitat is present, then the following action shall be implemented:	
		• Focused burrowing owl surveys shall be conducted according to the accepted CDFW protocol (see Staff Report on Burrowing Mitigation, CDFW 2012). If nesting burrowing owls are observed on or within 500 feet of the disturbance area, then the nest sites shall not be disturbed during the nesting season (February 1 through August 31) or until all young have fledged as determined by a qualified biologist. If non-nesting burrowing owls are observed in the disturbance area, then the owls shall be excluded through the use of the methods described in the Staff Report on Burrowing Owl Mitigation (CDFW 2012).	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.3 Biological Resources (continued)			
		MM BIO-1b: If construction of 2025 Updated FMP projects would commence anytime during the nesting/breeding season of native bird species (including white-tailed kite and Cooper's hawk) potentially nesting near the project sites (typically February through August in the project region), a pre-construction survey of the project vicinity for nesting birds shall be conducted. The survey shall be conducted by a qualified biologist (i.e., experienced with the nesting behavior of bird species of the region) within two weeks prior to the commencement of construction activities. The intent of the survey would be to determine if active nests of special-status bird species or other species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present within the construction zone or within 500 feet of the construction zone. The survey area would include all trees, shrubs, and grasslands in the construction zone and a surrounding 500-foot area.	
		If active nests are found in areas that could be directly affected or within 500 feet of construction and would be subject to prolonged construction related noise, a no-disturbance buffer zone should be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zones and types of construction activities restricted within them will be determined by the qualified biologist taking into account factors such as the following:	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.3 Biological Resources (continued)			
		• Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity; • Distance and amount of vegetation or other screening between the construction site and the nest; and • Sensitivity of individual nesting species and behaviors of the nesting birds.	
		Limits of construction to avoid an active nest shall be established in the field with flagging, fencing, or another appropriate barrier, and construction personnel shall be instructed on the sensitivity of nest areas.	
		MM BIO-1c: A qualified biologist shall conduct a roosting bat habitat evaluation prior to the demolition of any buildings. The evaluation shall determine if any buildings proposed for demolition provide potential bat roosting habitat. If it is determined that the building to be removed does not provide potential roosting habitat, no further action would be required. If suitable roost structures are identified, then surveys shall be conducted to determine if roosting bats are present. If it is determined that roosting bats are present, then a site-specific bat protection plan shall be developed by the qualified biologist to prevent disturbance of an active maternity or hibernation roost; the plan may include the use of passive bat exclusion devices, adjusting project timing to when the roost is not active, or other protective measures. It should be noted that the there are two acceptable seasonal time windows for humane exclusion:	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.3 Biological Resources (continued)			
		• Between about March 1, when bats become active again after heavy winter rains and when evening temperatures are above 45 °F, and April 15, when females start giving birth to pups. • Between August 31 and about October 15, or before heavy winter rains and when evening temperatures are above 45 °F. After that time, torpid bats are unable to fly out through the one-way exits.	
		Additionally, conducting bat surveys during the hibernation period (generally October 16 through February 28) may not provide conclusive results as bats are inactive and may be difficult or impossible to detect. Therefore, the timing of these seasonal time windows must be taken into consideration in planning and conducting the bat habitat evaluation/surveys.	
Impact BIO-2		**Mitigation Measure BIO-2**	
The implementation of the 2025 FMP would not have a substantial adverse effect on a riparian habitat or other sensitive natural community.	Less than significant	No mitigation is required	Less than significant
Impact BIO-3		**Mitigation Measure BIO-3**	
The implementation of the 2025 FMP would not have a substantial adverse effect on a federally protected wetland.	Less than significant	No mitigation is required	Less than significant
Impact BIO-4		**Mitigation Measure BIO-4**	
The implementation of the 2025 FMP would not interfere substantially with the movement of wildlife.	Less than significant	No mitigation is required	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Cultural Resources			
Impact CUL-1		**Mitigation Measure CUL-1**	
There is a potential for disturbance of previously unknown paleontological resources during site construction.	Potentially significant	If known, suspected, or potential vertebrate fossil materials are discovered during construction, work will stop within a 75-foot radius of the find until a qualified professional paleontologist (as defined by the Society of Vertebrate Paleontology or consistent with Caltrans standards for a Supervising Paleontologist) can assess the nature and importance of the find and recommend appropriate treatment, if any. Based on the paleontologist's professional judgment, treatment may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection, and may also include preparation of a report for publication describing the finds. The campus will be responsible for ensuring that the paleontologist's recommendations regarding treatment and reporting are implemented.	Less than significant
Impact CUL-2		**Mitigation Measure CUL-2**	
There is a potential for disturbance of previously unknown human remains during site construction.	Potentially significant	In the event of a discovery of human bone, potential human bone, or a known or potential human burial, all ground-disturbing work in the vicinity of the find will halt immediately and the area of the find will be protected until a qualified archaeologist determines whether the bone is human. If the qualified archaeologist determines the bone is human, the Campus will notify the County Coroner of the find. Consistent with California Health and Safety Code Section 7050.5(b), which prohibits disturbance of human remains uncovered by excavation until the Coroner has made a finding relative to the requirements of Public Resources Code Section 5097, the Campus will ensure that the remains and vicinity of the find are protected against further disturbance.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.4 Geology and Soils			
Impact GEO-1		**Mitigation Measure GEO-1**	
Development under the 2025 Updated FMP could expose people and structures on campus to substantial adverse effects related to seismic ground shaking and/or landslides.	Potentially significant	**MM GEO-1:** Where existing geotechnical information is not adequate, detailed geotechnical investigations shall be performed for areas that will support buildings or foundations. Such investigations for building or foundation projects on the Evergreen Valley College campus will comply with the California Geological Survey's *Guidelines for Evaluating and Mitigating Seismic Hazards in California* (Special Publication 117), which specifically address the mitigation of landslide hazards in designated Seismic Hazard Zones (CGS 2003). All recommendations of the geotechnical investigations shall be incorporated into project designs.	Less than significant
4.5 Greenhouse Gas			
Impact GHG-1		**Mitigation Measure GHG-1**	
Implementation of the 2025 Updated FMP would result in a reduction of GHG emissions. Therefore, the emissions would not result in a significant impact on the environment.	Less than significant	No mitigation is required	Less than significant
Impact GHG-2		**Mitigation Measure GHG-2**	
Implementation of the 2025 Updated FMP would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.	Less than significant	No mitigation is required	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Hazards and Hazardous Materials			
Impact HAZ-1		**Mitigation Measure HAZ-1**	
It is possible that contamination could be present on campus and, if encountered during construction, could result in the exposure of the public or construction workers to hazardous materials.	Potentially significant	If evidence of contaminated soil and/or groundwater, such as discolored soil, odors or oil sheen, is encountered during the removal of on-site debris or during excavation and/or grading both on- and off-site, the construction contractors shall stop work and immediately inform the Campus. An environmental hazardous materials professional shall be contracted to conduct an on-site assessment. If the materials are determined to pose a risk to the public or construction workers, the construction contractor shall prepare and submit a remediation plan to the appropriate agency and comply with all federal, state, and local laws. Soil remediation methods could include excavation and on-site treatment, excavation and off-site treatment or disposal, and/or treatment without excavation. Remediation alternatives for cleanup of contaminated groundwater could include in situ treatment, extraction and on-site treatment, or extraction and off-site treatment and/or disposal. Construction plans shall be modified or construction postponed to ensure that construction will not inhibit remediation activities and will not expose the public or construction workers to hazardous conditions.	Less than significant
4.6 Hydrology and Water Quality			
Impact HYDRO-1		**Mitigation Measure HYDRO-1**	
Implementation of the 2025 Updated FMP would not substantially alter the existing drainage patterns in a way that would result in on- or off-site flooding.	Less than significant	No mitigation is required	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.7 Land Use and Planning			
Impact LU-1		**Mitigation Measure LU-1**	
Implementation of the 2025 Updated FMP would not conflict with applicable regional plans, policies, or regulations of an agency with jurisdiction over the project adopted for the purposes of avoiding or mitigating an environmental effect.	Less than significant	No mitigation is required	Less than significant
Impact LU-2		**Mitigation Measure LU-2**	
Implementation of the 2025 Updated FMP would not result in the development of land uses that are substantially incompatible with existing adjacent land uses or with planned uses.	Less than significant	No mitigation is required	Less than significant
4.8 Noise			
Impact NOI-1		**Mitigation Measure NOI-1**	
Implementation of the 2025 Updated FMP would not expose on-campus academic buildings to noise levels in excess of the State's exterior noise standard for schools.	Less than significant	No mitigation is required	Less than significant
Impact NOI-2		**Mitigation Measure NOI-2**	
Implementation of the 2025 Updated FMP would not generate increased local traffic volumes that would cause a substantial permanent increase in noise levels at off-campus locations.	Less than significant	No mitigation is required	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.8 Noise (continued)			
Impact NOI-3		**Mitigation Measure NOI-3**	
Implementation of the 2025 Updated FMP would add new stationary and area noise sources to the campus. However, it would not cause a substantial permanent increase in ambient noise levels on- or off-campus.	Less than significant	No mitigation is required	Less than significant
Impact NOI-4		**Mitigation Measure NOI-4**	
Construction on the campus pursuant to the 2025 Updated FMP could expose existing and future noise-sensitive receptors to elevated construction noise levels and result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	Potentially significant	**MM NOI-4a**: Construction activities on campus shall be restricted to between the hours of 7:00 AM and 7:00 PM on weekdays and Saturdays and 10:00 AM to 6:00 PM on Sundays and holidays.	Significant and unavoidable

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.8 Noise (continued)			
		MM NOI-4b: Prior to initiation of campus construction, the Campus shall approve a construction noise mitigation program including but not limited to the following. • All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with exhaust mufflers and air-inlet silencers where appropriate, in good operating condition that meet or exceed original factory specification. • Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment. • All mobile or fixed noise producing equipment used on the project, which is regulated for noise output by local, state or federal agency, shall comply with such regulation while engaged in project-related activities. • Material stockpiles and mobile equipment staging, construction vehicle parking and maintenance areas shall be located as far as practicable from noise-sensitive land uses. • Stationary noise sources such as generators or pumps shall be located away from noise-sensitive land uses as feasible. • The use of noise-producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only. No project-related public address loudspeaker, two-way radio, or music system shall be audible at any adjacent noise-sensitive receptor except for emergency use.	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.8 Noise (continued)			
		• The erection of temporary noise barriers shall be considered where project activity is unavoidably close to noise-sensitive receptors. • Construction vehicle trips shall be routed as far as practical from existing sensitive uses. • The loudest campus construction activities, such as demolition and pile driving, shall be considered for scheduling during academic breaks when fewer people would be disturbed by construction noise. • Whenever possible, academic, administrative, and sensitive use areas that will be subject to construction noise shall be informed prior to the start of each construction project.	
Impact NOI-5		**Mitigation Measure NOI-5**	
Construction on the campus pursuant to the 2025 Updated FMP could generate and expose persons on campus to excessive groundborne vibration, although it would not expose off-campus receptors to excessive groundborne vibrations.	Potentially significant	**MM NOI-5**: Pile driving activities that could result in vibration and are within 75 feet of a classroom building and demolition and construction activities with no pile driving that could result in vibration and are within 50 feet of a classroom building will be scheduled to occur on weekends or during periods when instruction is not occurring on the campus when feasible. If pile driving activities within 75 feet of a classroom building and demolition and construction activities within 50 feet of a classroom building are scheduled to occur during periods when instruction is occurring on the campus, a notice shall be posted in the vicinity of the affected classroom buildings notifying the campus community of the upcoming construction activities.	Significant and unavoidable

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.9 Public Services			
Impact PUB-1		**Mitigation Measure PUB-1**	
Implementation of the 2025 Updated FMP would not require the construction of new or physically altered fire protection facilities, which could cause significant environmental impacts.	Less than significant	No mitigation is required	Less than significant
Impact PUB-2		**Mitigation Measure PUB-2**	
Implementation of the 2025 Updated FMP would require the construction of new or physically altered law enforcement facilities. However, construction of the facilities would not result in significant environmental impacts.	Less than significant	No mitigation is required	Less than significant
4.10 Transportation and Traffic			
Impact TRANS-1		**Mitigation Measure TRANS-1**	
Implementation of the 2025 Updated FMP would conflict with City of San José standards for signalized and unsignalized intersections and VTA standards for CMP intersections under 2025 plus project conditions.	Potentially significant	**MM TRANS-1**: The Campus shall provide a proportional share of the cost of feasible improvements to applicable intersections based on the project's actual contribution to the impact. The project's contribution shall be determined based on a formula agreed to by the City of San Jose and/or Caltrans and the Campus.	Significant and unavoidable
Impact TRANS-2		**Mitigation Measure TRANS-2**	
Implementation of the 2025 Updated FMP would not conflict with City of San José standards for intersections and VTA standards for CMP intersections under existing plus project conditions.	Less than significant	No mitigation is required	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.10 Transportation and Traffic (continued)			
Impact TRANS-3		**Mitigation Measure TRANS-3**	
Implementation of the 2025 Updated FMP would not conflict with CMP standards for freeway segments under existing plus project and 2025 plus project conditions.	Less than significant	No mitigation is required	Less than significant
Impact TRANS-4		**Mitigation Measure TRANS-5**	
Implementation of the 2025 Updated FMP would not result in hazards due to design features or incompatible uses.	Less than significant	No mitigation is required	Less than significant
Impact TRANS-5		**Mitigation Measure TRANS-6**	
Implementation of the 2025 Updated FMP would not result in inadequate emergency access.	Less than significant	No mitigation is required	Less than significant
Impact TRANS-6		**Mitigation Measure TRANS-7**	
Implementation of the 2025 Updated FMP would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.	Less than significant	No mitigation is required	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.11 Utilities			
Impact UTIL-1		**Mitigation Measure UTIL-1**	
Implementation of the 2025 Updated FMP would not result in the need for new or expanded water supply entitlements or require the construction of new or expanded water delivery infrastructure.	Less than significant	No mitigation is required	Less than significant
Impact UTIL-2		**Mitigation Measure UTIL-2**	
Implementation of the 2025 Updated FMP would not require or result in the construction or expansion of water treatment facilities.	Less than significant	No mitigation is required	Less than significant
Impact UTIL-3		**Mitigation Measure UTIL-3**	
Implementation of the 2025 Updated FMP would not require the construction or expansion of wastewater conveyance or treatment facilities.	Less than significant	No mitigation is required	Less than significant
Impact UTIL-4		**Mitigation Measure UTIL-4**	
Implementation of the 2025 Updated FMP would not require the construction or expansion of storm water drainage facilities.	Less than significant	No mitigation is required	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.11 Utilities (continued)			
Impact UTIL-5		**Mitigation Measure UTIL-5**	
Implementation of the 2025 Updated FMP would not conflict with applicable solid waste regulations, nor would it result in solid waste requiring disposal that would exceed the landfill capacity.	Less than significant	No mitigation is required	Less than significant
Impact UTIL-6		**Mitigation Measure UTIL-6**	
Implementation of the 2025 Updated FMP would not require the construction or expansion of electrical or natural gas distribution facilities	Less than significant	No mitigation is required	Less than significant

Table 2.0-2
Comparison of Alternatives to the 2025 Updated Facilities Master Plan

Environmental Issue Area	Proposed Project Impact (After Mitigation)	Alt. 1 – Reduced Enrollment Capacity	Alt. 2 – No Project
Aesthetics	Potentially significant (Less than significant)	Reduced Impact	None
Air Quality- Construction Emissions	Less than significant	Reduced Impact	None
Air Quality- Operational Emissions	Less than significant	Reduced Impact	Greater (still less than significant)
Biological Resources	Potentially significant (Less than significant)	Reduced Impact	None
Geology and Soils	Potentially significant (Less than significant)	Reduced Impact	None
Greenhouse Gas Emissions – Construction	Less than significant	Reduced Impact	None
Greenhouse Gas Emissions – Operational	Less than significant	Reduced Impact	Greater (still less than significant)
Hydrology and Water Quality	Less than significant	Reduced Impact	None
Land Use and Planning	Less than significant	Similar	None
Noise – Operational	Less than significant	Reduced Impact	Greater (still less than significant)
Noise – Construction	Significant (Significant and unavoidable)	Similar	None
Public Services - Fire Protection	Less than significant	Reduced Impact	Greater (still less than significant)
Public Services – Law Enforcement	Less than significant	Reduced Impact	Greater (still less than significant)
Transportation and Traffic	Significant (Significant and unavoidable)	Reduced Impact (still significant and unavoidable)	Greater (still significant and unavoidable)
Utilities – Potable Water	Less than significant	Reduced Impact	Greater (still less than significant)
Utilities –Non-Potable Water	Less than significant	Similar	Similar
Utilities – Wastewater	Less than significant	Reduced Impact	Greater (still less than significant)
Utilities - Solid Waste	Less than significant	Reduced Impact	Greater (still less than significant)
Utilities – Electricity and Natural Gas	Less than significant	Reduced Impact	None

3.0 PROJECT DESCRIPTION

3.1 INTRODUCTION

This chapter of the EIR presents details of the 2025 Updated Facilities Master Plan (FMP) project for Evergreen Valley College (EVC) in terms of the need for the project and its objectives, and the project's various components. In addition, this chapter presents details of two additional projects not included in the 2025 Updated FMP that are proposed by San José Evergreen Community College District (SJECCD) at the EVC campus. The SJECCD is proposing to implement the 2025 Updated FMP to meet the facilities requirements contained in the 2025 Educational Master Plan (EMP) for the EVC campus.

3.2 PROJECT LOCATION

The EVC campus is located in at 3095 Yerba Buena Road in east-central San José in Santa Clara County. The location of the campus within Santa Clara County and the City of San José is shown on **Figure 3.0-1, Regional and Site Location.** The campus is near the eastern City boundary and is bounded by San Felipe Road to the west, Yerba Buena Road to the south, Montgomery Hill Park to the east, and Falls Creek Drive to the north. The campus encompasses about 158 acres.

3.3 SURROUNDING LAND USES

The EVC campus is in a suburban/rural setting that is currently experiencing substantial commercial and residential development. Nearby uses include residential uses to the north beyond Evergreen Creek and Falls Creek Drive, to the west beyond San Felipe Road and Thompson Creek, and to the south beyond Yerba Buena Road and Yerba Buena Creek. Other nearby uses include Evergreen Park and a church to the south, Montgomery Hill Park and undeveloped lands to the east, and an orchard and an assisted-living facility to the west. **Figure 3.0-2, Surrounding Land Uses** depicts the location of these land uses in relation to the EVC campus.

3.4 ENVIRONMENTAL SETTING

3.4.1 Existing Site Development

Existing buildings are mainly located in the eastern part of the campus, and include instructional buildings, service buildings, and support facilities. Sports facilities are located in the southern and eastern parts of the campus and include sports fields and tennis and racquetball courts. Parking lots are located around the perimeter of the campus. Overall, existing buildings on the campus total approximately 344,900 square feet. See **Figure 3.0-3, Evergreen Valley College Campus** for a map of the existing EVC campus. The current enrollment at EVC is about 11,980 students (head count); the College does not house students but is used extensively in the evenings.

West of the main campus is district-owned property that includes the district office, the Criminal Justice Training Center, a neighborhood retail shopping center, and undeveloped land.

The campus was established at its current site in 1975. The initial buildings were constructed in the 1970s and construction has continued on the campus to the present day. **Figure 3.0-4, Campus Development History** illustrates the decade in which all of the currently existing buildings were built.

3.4.2 Campus Circulation and Parking

Existing vehicular circulation patterns on the campus are illustrated in **Figure 3.0-5, Existing Vehicular Circulation**. Access is provided locally from San Felipe Road and Yerba Buena Road; the campus can be accessed regionally by the Capitol Expressway and US 101. Within the campus, the access road from San Felipe Road (Paseo de Arboles) leads to parking lots near the Library/Educational Technology Center in the center of the campus, while the main driveway from Yerba Buena Road leads to parking lots in the eastern part of the campus. An emergency access road runs along the northern margin of the campus and connects the two main parking areas. There is also an isolated access driveway from Yerba Buena Road to a parking lot on the south side of the campus.

Access to the District offices and Criminal Justice Training Center is via driveways from Paseo de Arboles, and access to the shopping center is by driveways from both San Felipe Road and Yerba Buena Road.

There are currently 2,671 parking spaces on the campus. Existing parking on the campus along with the number of parking spaces at each parking facility are illustrated in **Figure 3.0-6, Existing Parking**. Surface parking lots are located on the perimeter of the campus.

Emergency access routes on the campus are illustrated in **Figure 3.0-7, Existing Emergency Access**. Pedestrian circulation patterns and areas of student gathering on the campus are illustrated in **Figure 3.0-8, Existing Pedestrian Circulation**.

3.4.3 Campus Functional Zones

Figure 3.0-9, Campus Functional Zones, illustrates the functional zones on the campus site. Colors indicate the current assigned functions of buildings and identify the general functional zones or land uses on the campus.

SOURCE: Google Earth – September 2011

FIGURE **3.0-1**

Regional and Site Location

461-04•09/11

SOURCE: Google Earth – September 2011

FIGURE **3.0-2**

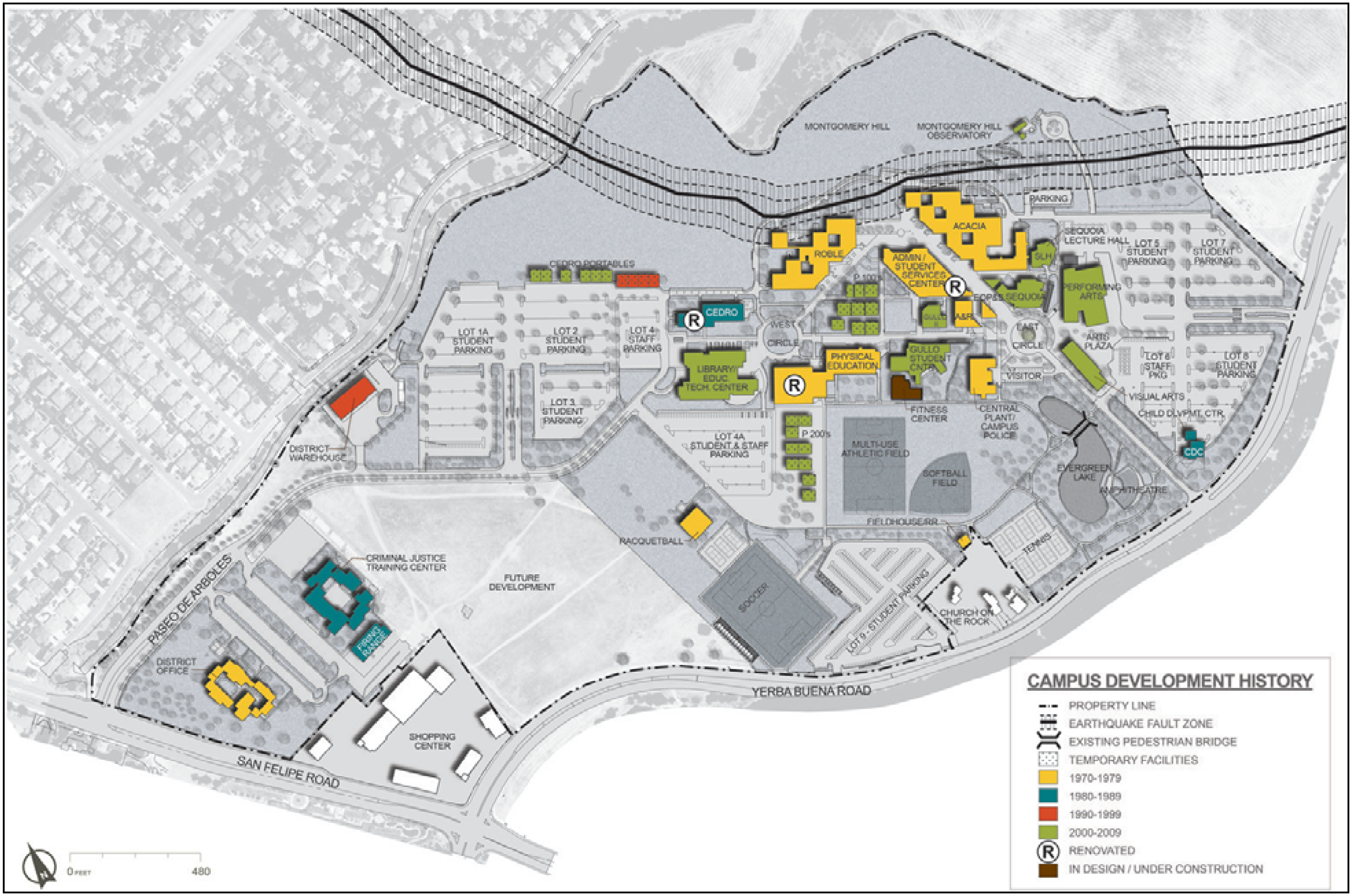
Surrounding Land Uses

461-04•09/11

SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-3**

Evergreen Valley College Campus



SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-4**

Campus Development History

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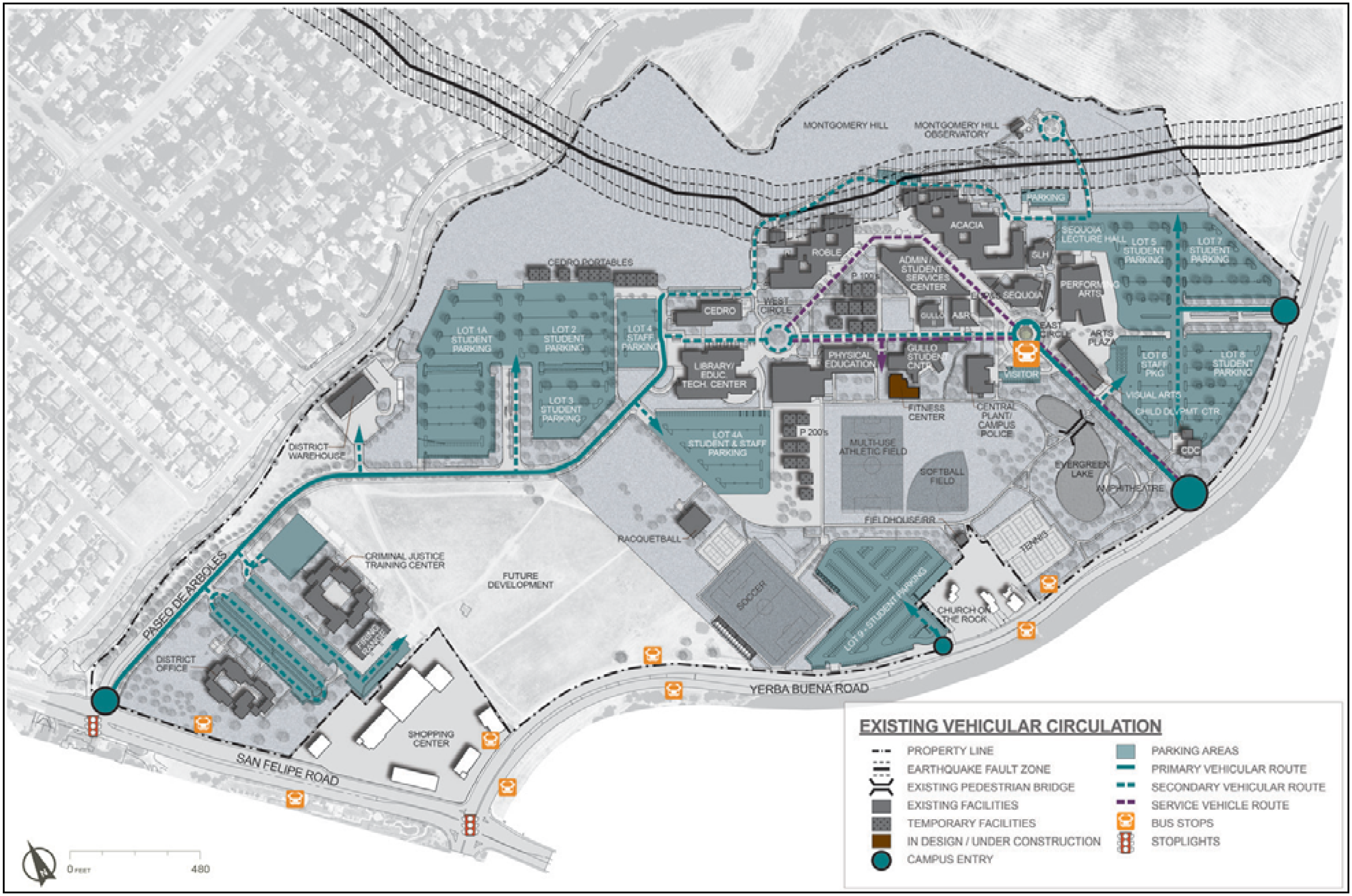
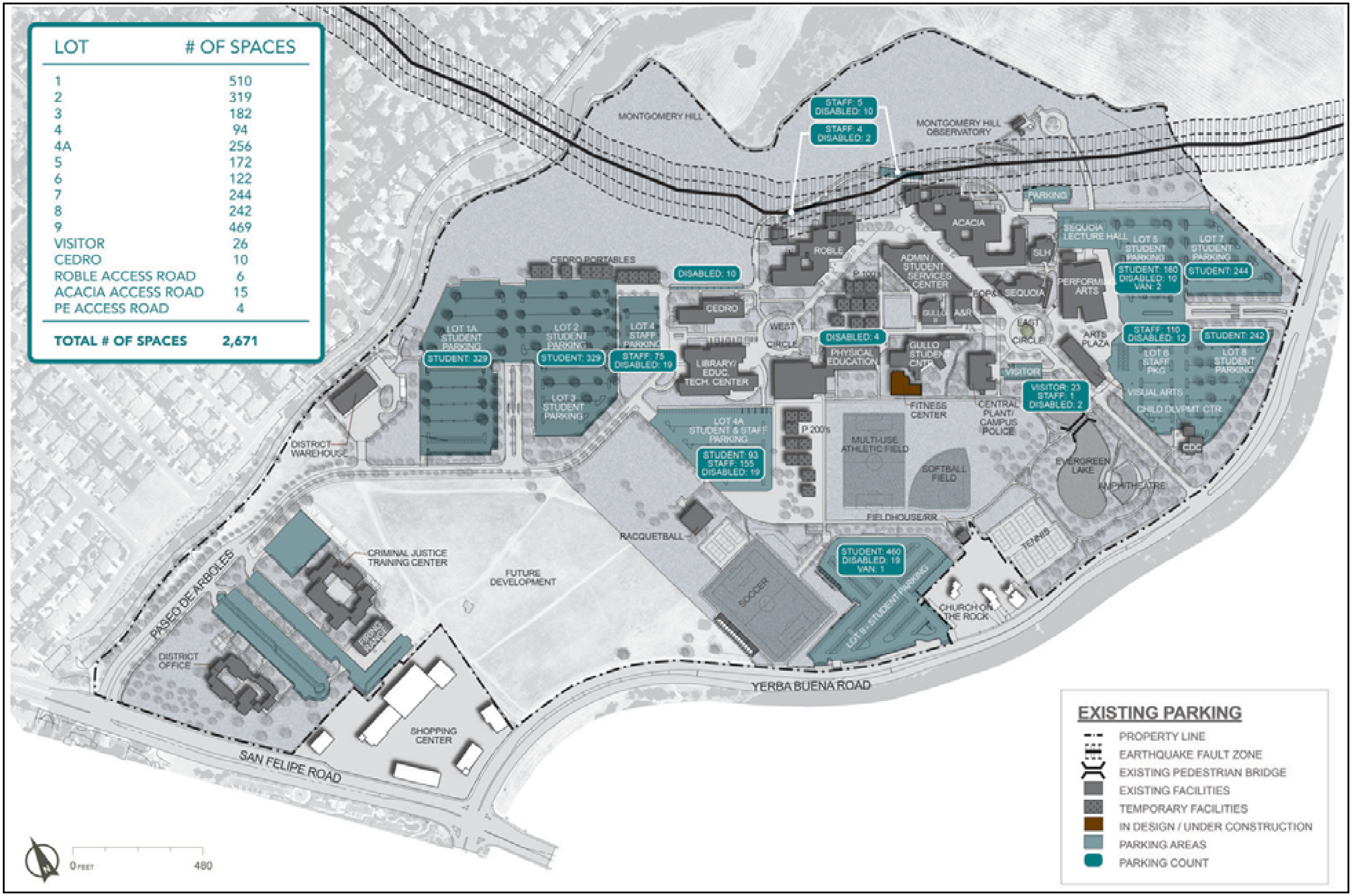


SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-5**

Existing Vehicular Circulation

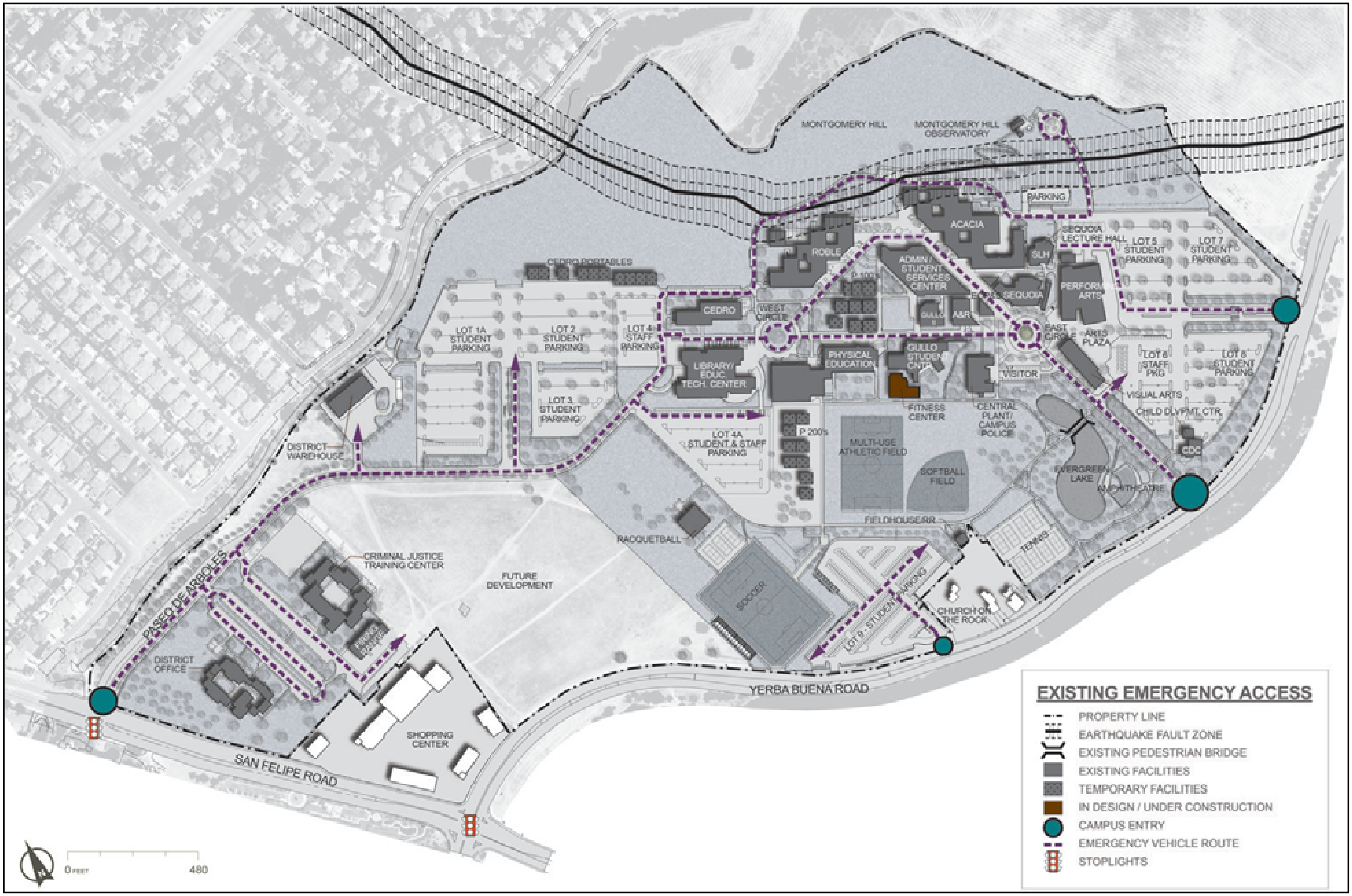


SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-6**

Existing Parking

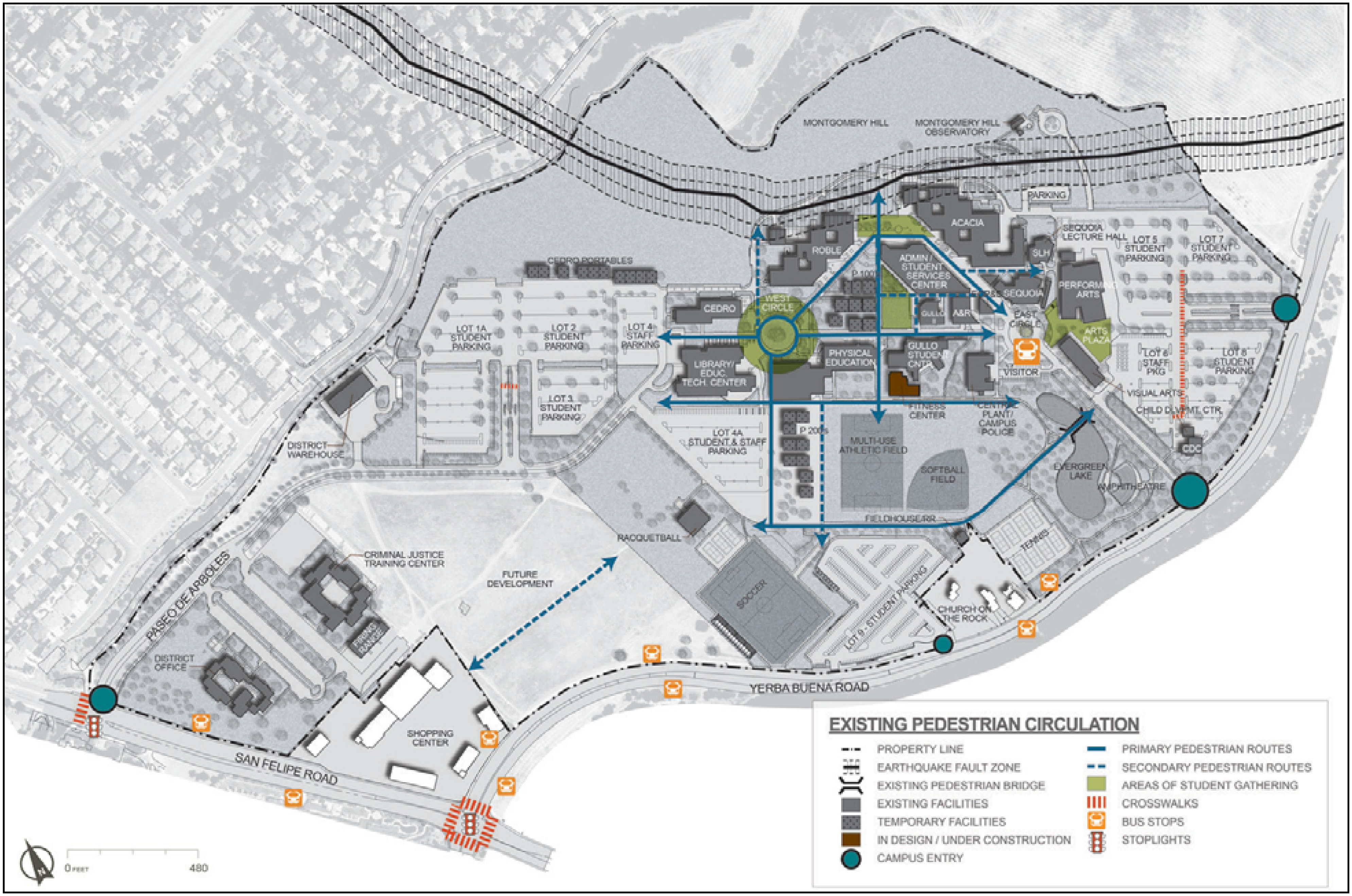
0461-004•12/11



SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-7**

Existing Emergency Access

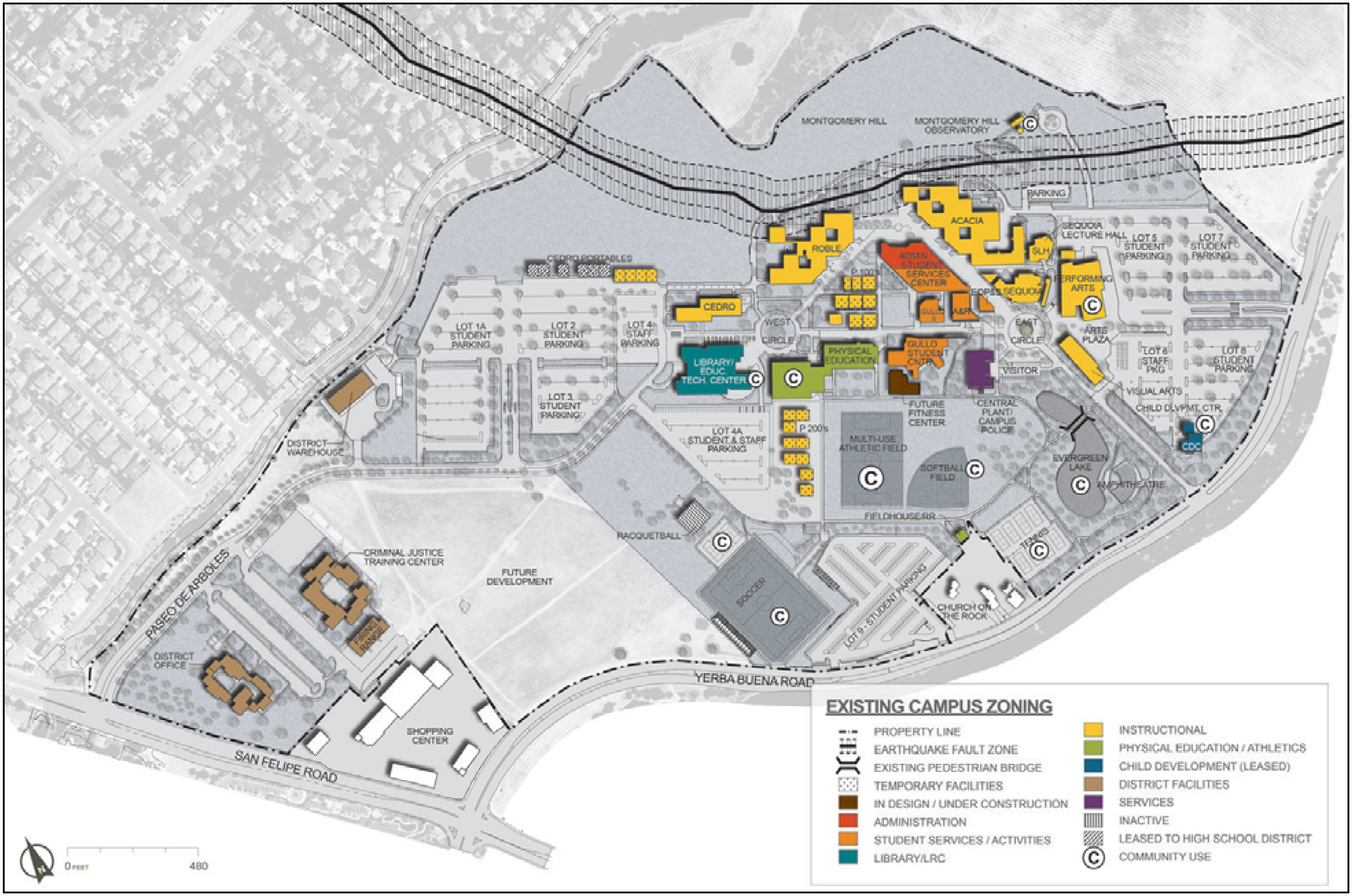


SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-8**

Existing Pedestrian Circulation

0461-004•12/11



SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-9**

Campus Functional Zones

0461-004•09/12

3.4.4 Campus Landscaping

The EVC campus is located at the foot of the Diablo Range and is located against Montgomery Hill, a grassy hillside that provides a backdrop for the campus. The campus is broadly divided into three landscape zones: the academic core of the campus or "Academic Village" in the center, with the "Hillside" area to the north, and the athletic fields or "Plains" to the south. The Hillside area is not landscaped, except for a few trees around the Montgomery Hill Observatory and along the access road that runs along the north side of the developed area of the campus. Within the Academic Village several large specimen trees are planted around the buildings and provide shade. Small open spaces within the academic core and the areas around the buildings are landscaped with shrubs and lawn. In the Plains area south of the Academic Village, the sports fields are bordered by parking lots, Evergreen Lake, and an expanse of undeveloped space separating the main campus from development along the east side of San Felipe Road. **Figure 3.0-10, Existing Campus Landscaping** illustrates existing landscaping on the campus.

3.5 PROJECT NEED

The 2025 Updated FMP translates the program space needs established in the EVC 2025 EMP into physical facilities on the campus. According to the 2025 EMP for the EVC campus, total enrollment on the campus is expected to reach approximately 14,840 students by 2025, which equates to 9,100 full-time equivalent (FTE) students. Based on these projections, approximately 355,175 square feet of building space is needed on the campus to accommodate the students and planned programs. The amount of space required on campus takes into account of all facility needs of the campus - academic space as well as space for support services. The 2025 EMP determined that EVC does not show any significant need for additional space through the year 2025, although there are needs in specific space categories, including but not limited to, classrooms, laboratory space, and assembly/exhibition.

3.6 PROJECT OBJECTIVES

The primary objectives of the 2025 Updated FMP and the individual projects it includes are to:

- Keep pace with and anticipate the changing needs of the students and the communities served by the college;
- Develop a Facilities Plan that supports the anticipated courses, programs and services of the college for the next decade, and to assure that the plan is flexible enough in design to accommodate changes in instructional methodology, technology, and delivery systems;
- Update the existing campus and provide modern, attractive facilities appropriate for the instructional programs and support services offered;
- Clarify and fix distinct identities of three main areas (hubs) on the campus;

- Draw activity out of isolated clusters and into the pedestrian streets;
- Visually connect the campus to the larger surroundings;
- Establish a clear differentiation between the "front" and "rear" entrances to campus; and
- Create a vehicle-free inner campus.

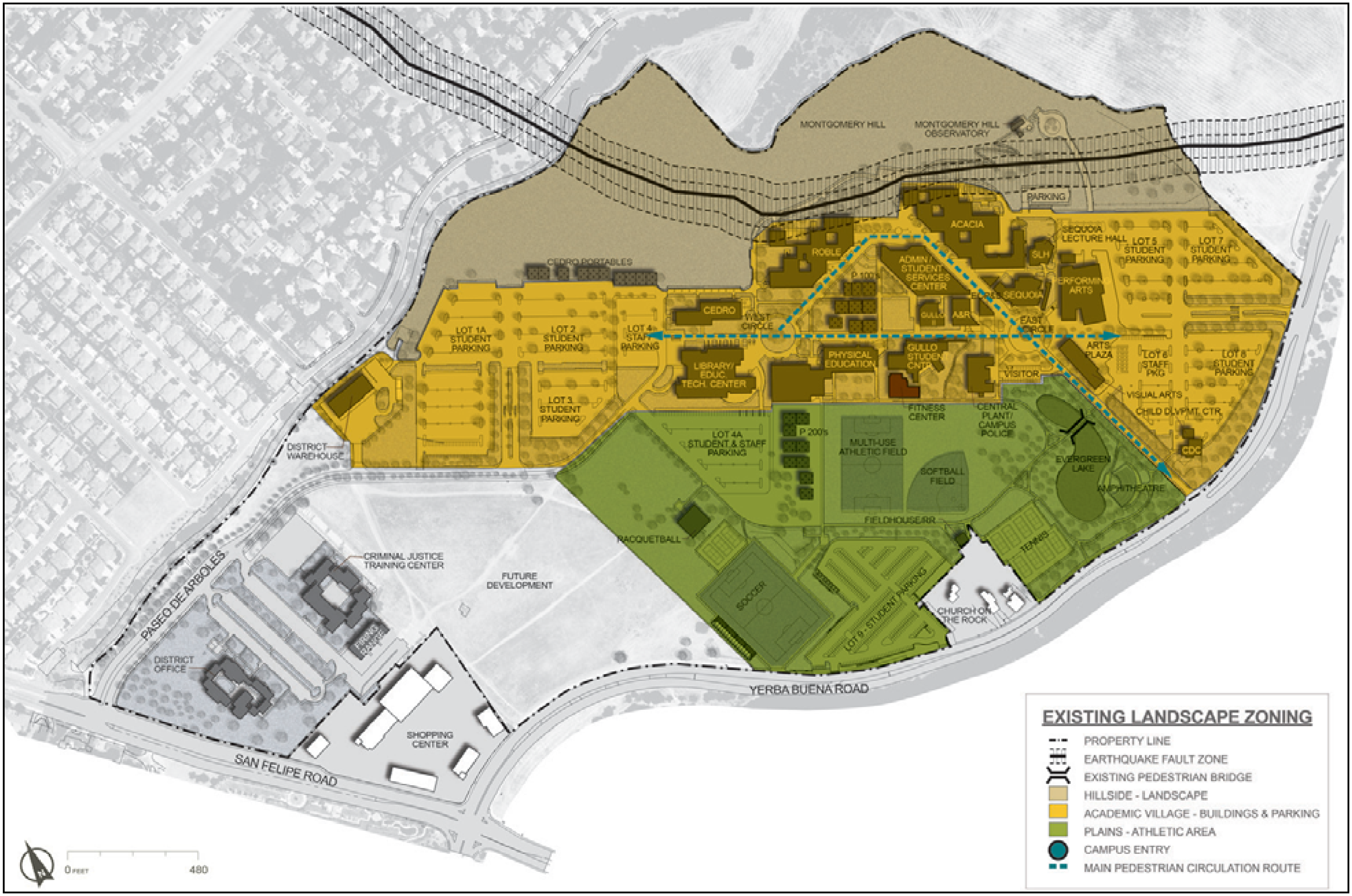
3.7 PROJECT CHARACTERISTICS

The 2025 Updated FMP for the EVC campus is depicted in **Figure 3.0-11, 2025 Updated Facilities Master Plan**. The recommendations contained in the 2025 Updated FMP address the current and projected needs of the campus through 2025. A photovoltaic system was recently installed along the north central border of campus and is displayed in **Figure 3.0-11**. This project under went California Environmental Quality Act (CEQA) review in 2011 and is not evaluated in the EIR as a part of the proposed project.

Table 3.0-1, New Construction and Demolition/Removal under the 2025 Facilities Master Plan, shows the amount of new construction and demolition/removal that would occur under the 2025 Updated FMP. Overall, compared to existing conditions, the total building space on the campus would increase by approximately 10,250 square feet.

Table 3.0-1
New Construction and Demolition/Removal under the 2025 Updated Facilities Master Plan 2025
(Square feet)

Facility	New Construction	Demolition/ Removal	Net Total
Cluster Acacia	--	84,142	
Cluster Roble	--	54,241	
Racquetball Courts	--	9,794	
All portable buildings	--	10,720	
Police Expansion	2,086	--	
Math/Science Complex	67,080	--	
Applied Technology	19,735	--	
General Education Building	51,536	--	
GED/Engineering/Language Arts/Social Science	20,784	--	
Fitness Center	7,922	--	
Total	**169,143**	**158,897**	**10,246**



SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-10**

Existing Campus Landscaping

0461-004•09/12

SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-11**

2025 Updated Facilities Master Plan

0461-004•01/13

3.7.1 Proposed Changes to Campus Facilities

Facility recommendations in the 2025 Updated FMP include demolition/removal of existing building on the campus; the construction of new buildings; and renovation of existing buildings to meet the future programs needs as outlined in 2025 EMP. A description of each of these elements is provided below.

Demolition/Removal of Existing Facilities

The 2025 Updated FMP identifies several buildings for demolition/removal to eliminate non-functioning space and replace the oldest and most outdated facilities with new facilities. Facilities identified by the 2025 Updated FMP for demolition/removal are:

- Cluster Acacia
- Cluster Roble
- Racquetball Courts
- All Portable Buildings

The location of each of these facilities is shown in **Figure 3.0-12, Recommended Demolition/Removal Plan**.

Construction of New Facilities

New construction projects planned or recommended in the 2025 Updated FMP on the EVC campus are described below. Descriptions of these projects are organized into groups based on campus location. The order of the projects does not reflect priority order or a recommended sequence of development.

Math/Science Complex

The new Math/Science Complex would provide new instructional space and coordinate with the removal of the aging Acacia Cluster. The multi-story complex would support the growth indicated by the 2025 EMP and include dedicated labs and flexible classroom to support the science and math programs. The proposed location, to the south of Gullo I, would tie into the lower level of the Student Center and activate an underutilized area of the campus. The new outdoor gathering space would be framed by buildings to create connections to the "Plains" area of the campus.

Applied Technology

The Applied Technology Building would replace the aging auto technology facilities currently housed in Cluster Acacia. Its new northwest campus location would also capitalize on the "Hillside" as a backdrop and the location of the new parking lot with photovoltaic canopies. This location provides an opportunity to link green technology, advanced transportation, and alternative fuels in this building and associated site area.

General Education Building

The General Education Building (GED) would provide replacement classroom space for Language Arts/Social Sciences as the aging cluster buildings are removed from the campus. The proposed location, adjacent to the Math/Science Complex, would help to define the new outdoor areas to the south of Gullo I. This multi-story instructional building would support the growth anticipated by the 2025 EMP and include multi-purpose, flexible instructional space to support a variety of disciplines.

GED/Engineering/Applied Tech

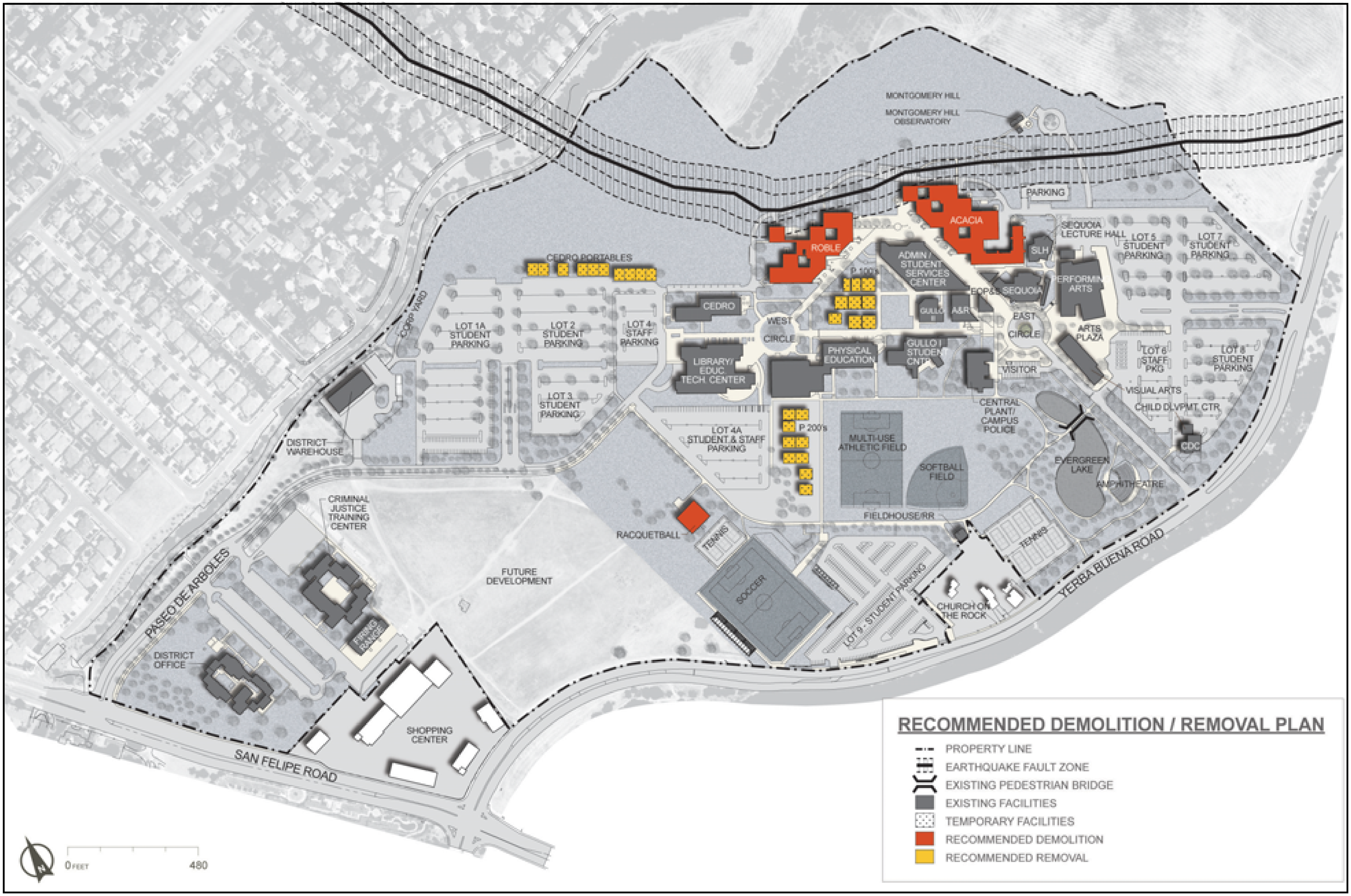
GED/Engineering/Applied Tech would be located in the northwest portion of the campus on the site vacated by the demolition of Cluster Roble. It would anchor the Village Walk West, capitalize on the "Hillside" as a backdrop, and help redefine the western edge of the campus. This multi-story instructional building would support the growth indicated by the 2025 EMP and bring multi-purpose, flexible, instructional space to support general education, engineering, and applied technology.

Fitness Center

The proposed 8,000-square-foot Fitness Center is currently in design. It is proposed to be located to the south of the Physical Education building, adjacent to the athletic fields. The facility is close to the Fitness Walk and would have views of the grass sports field (the Plains). This will be the first LEED® project on the campus.

Renovation of Existing Facilities

The 2025 Updated FMP recommends renovations to several buildings. A description of renovation projects planned on the EVC campus is provided below. The order of the projects does not reflect priority order or a recommended sequence of development. In addition to the projects highlighted below, the 2025 Updated FMP recommends the renovation of all other existing campus facilities as required.



SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-12**

Recommended Demolition/Removal Plan

0461-004•12/11

Central Plant/Police Building

The existing Central Plant/Campus Police Building would remain in its current location and would be extensively renovated. Mechanical equipment in the Central Plant Building would be upgraded, electrical service equipment would be replaced, and staff areas would be improved. In addition, the plant will be outfitted to utilize non-potable recycled water for cooling. The Campus Police Building would be expanded to allow more efficient operations and provide a secure environment responsive to current District needs. The exterior of the building would be improved to reflect a more consistent campus architectural theme and to provide a more recognizable presence for District Police.

Administration/Student Services Center

The Administration/Student Services Center has been identified as a building requiring operational-related renovations to reduce operating expenses following the 2011 budget cuts. The 2025 Updated FMP recommends that the Administration/Student Services Center be studied in conjunction with the Admission & Records (A&R) building with the goal of developing a long-range plan that addresses both the current budget and staffing reductions and the long-term needs of the college.

Admissions & Records

Admission & Records has also been identified as a building requiring operational-related renovations to reduce operating expenses. The 2025 Updated FMP recommends that the A&R building be studied in conjunction with the Administration/Student Services Center with the goal of developing a long-range plan that addresses both the current budget and staffing reductions and the long-term needs of the college.

Gullo I

Gullo II is primarily used as the Student Activities Center. The 2025 Updated FMP recommends that Gullo I be reconfigured to provide additional space for the Student Activities Center. This would consolidate most student activities in one location. There is a potential that the bookstore will be relocated, but this issue will be addressed following the completion of this EIR process.

Gullo II

Gullo II is primarily used as a multi-functional event and community room. It has a capacity to hold 250 to 300 people; however, acoustically it functions poorly. The 2025 Updated FMP recommends that the location of a new large multi-purpose event room be studied and that this function vacate Gullo II. It is further recommended is that this space be reprogrammed and renovated to house a new café and informal student gathering area.

3.7.2 Proposed Changes to the Other Site Improvements

In addition to the recommendations for facilities, the 2025 Updated FMP includes a number of site improvement projects, consisting mainly of circulation, landscaping, and open space improvements to unify the mix of different building styles on the campus. The site improvements identified in the 2025 Updated FMP consist of a new vehicular circulation plan (**Figure 3.0-13, Recommended Vehicular Circulation Plan;** a new pedestrian circulation plan (**Figure 3.0-14, Recommended Pedestrian Circulation Plan**); and landscape improvements (**Figure 3.0-15, Recommended Landscape Improvements**). A description of individual site improvement projects associated with each plan is provided below.

Recommended Vehicular Circulation Plan

Roads

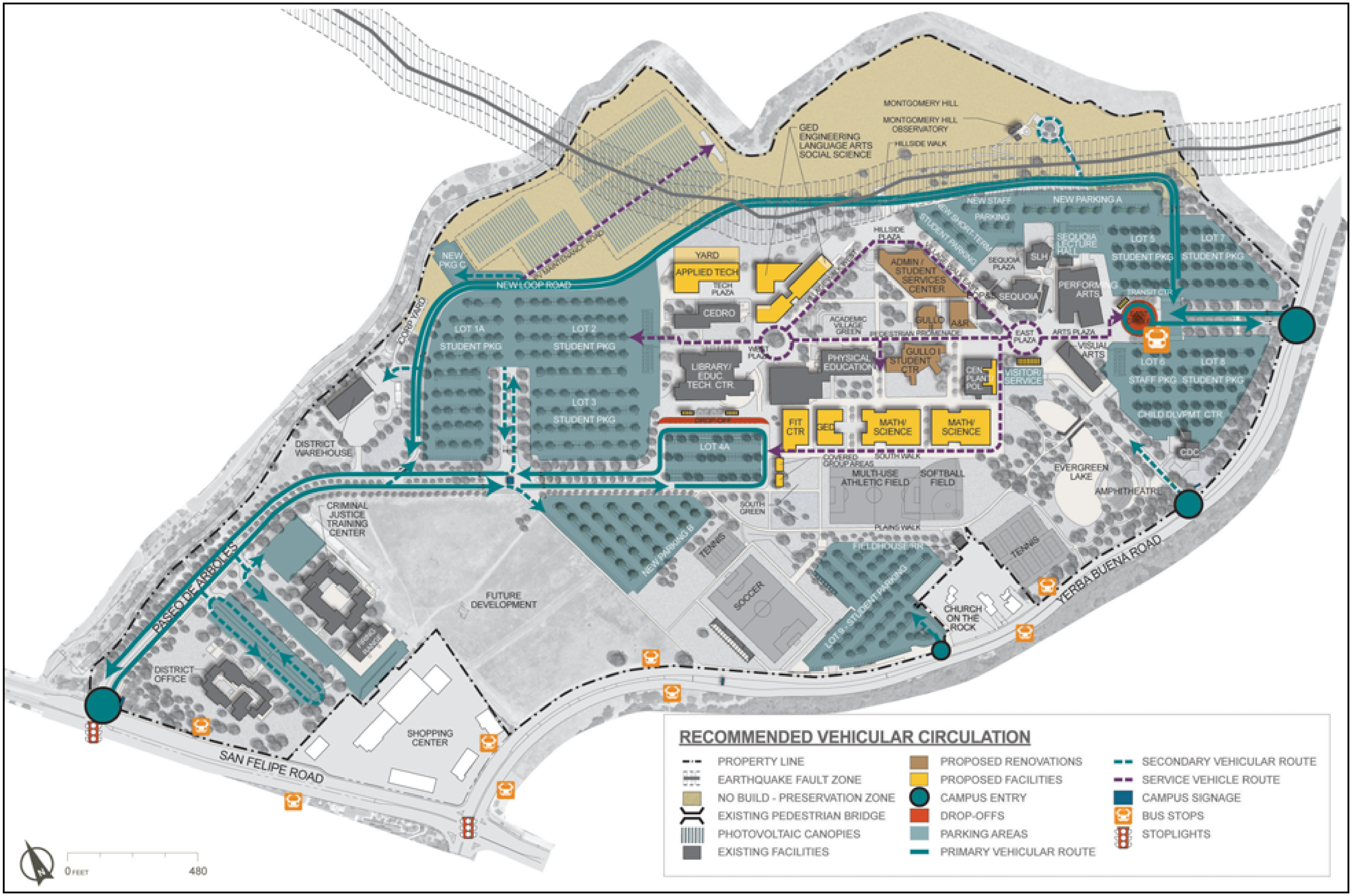
Campus vehicular circulation is disconnected and moving a vehicle across the campus requires leaving the campus, traversing either San Felipe or Yerba Buena Road, and reentering the campus on the other side. The proposed Loop Road will become the main internal vehicular connection between campus areas. Paseo de Arboles will be widened to allow easy two-way traffic in and out of the campus. Improving access, developing safe pedestrian crossings, and improving wayfinding will enhance the campus experience for both students and visitors. The proposed Loop Road adjacent to the "Hillside" will need to address the issue of site grading and drainage as it approaches more steeply sloping ground.

Campus Entries

The campus perimeter defines the identity of the campus. Strong visual connections to the surrounding community can be made through improvements to planting, signage, and details such as fencing. The 2025 Updated FMP recommends that planting, signage, and roadway concepts be developed for the two main vehicular entry drives:

- San Felipe Road/Paseo de Arboles
- East Campus Entry/Yerba Buena Road

The design concepts should both reinforce the identity of the campus and distinguish between the entries.



SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-13**

Recommended Vehicular Circulation Plan

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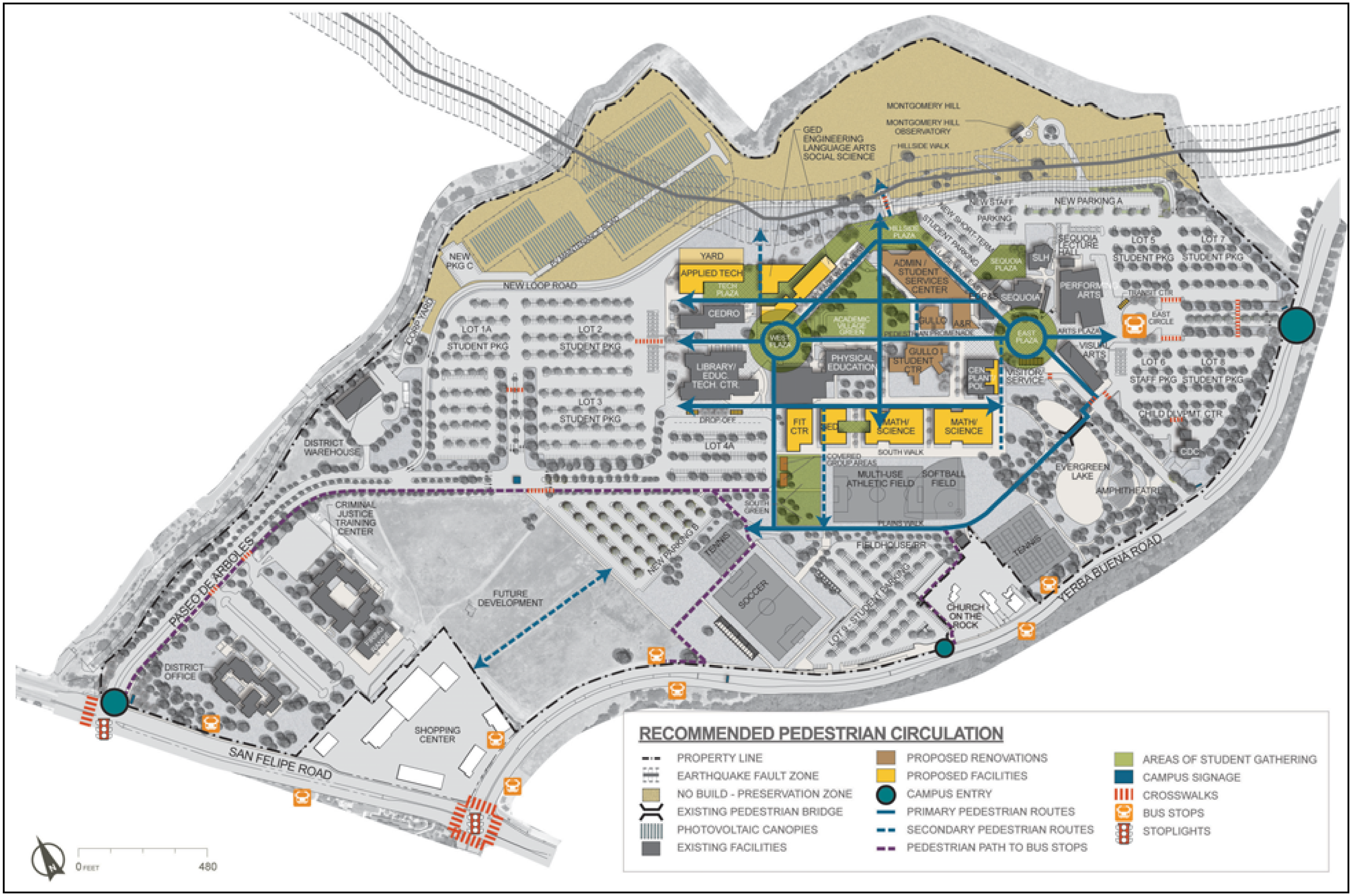

SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-14**

Recommended Pedestrian Circulation Plan

SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **3.0-15**

Recommended Landscape Improvements

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Circles and Drop-Offs

The 2025 Updated FMP recommends that a new East Circle be developed to function as the transit center for the campus. The new circle would incorporate a dedicated covered/trellised waiting area and small plaza area that would help define this front entry to the campus. On the west side of campus, a new drop-off with trellised waiting areas is recommended south of the Library/Technical Education Center and as part of a loop around Parking Lot 4A. Together, these new drop-offs would provide clear, safe pedestrian connections between transit and the campus core and reduce potential vehicular and pedestrian conflict.

Parking Lots

The 2025 Updated FMP recommends a number of new and reconfigured parking lots. Parking lots are an opportunity to reinforce the sustainable approach to design on the campus. Sustainable opportunities include the use of permeable paving, tree-covered or photovoltaic (PV) canopy-covered parking lots to increase shade and reduce heat island effect, sustainable storm water control including the use of bioswales, and water conserving or drought tolerant native planting. Other goals include provision of clear and safe pedestrian walkways, crosswalks, and connections, improved directional and wayfinding signage, and improved layout and efficiency of parking lots.

The parking lots highlighted in the 2025 Updated FMP are:

- New Lot A with bioswale
- New Lot B with photovoltaic canopies
- New Lot C
- New Short-Term Student Parking
- New Staff Parking
- Reconfigured Lot 4A with bioswales

Recommended Pedestrian Circulation Plan and Other Outdoor Facilities

Pedestrian Spines

The primary proposed pedestrian circulation for the campus is defined by four spines – the Pedestrian Promenade, the Village Walk West, the Village Walk East, and the South Walk. Together these spines would connect and define the core or "Academic Village" of the campus. They would act as edges to major open spaces and provide opportunities to create specialty gardens, allées, and outdoor plazas along them that would act as informal gathering spaces.

Some of the recommendations for the spines are:

- Open view corridors along the spines to connect to the "Hillside," Evergreen Lake, and "Plains"
- Remove vehicular traffic from the interior campus and pedestrian spines
- Improve the pedestrian experience through landscape elements such as specialty paving, seating, planting, signage, and lighting
- Mark the ends of the Pedestrian Promenade with the West and East Plazas
- Consider maintaining barrier-free access through improved paving and consideration of on-call electric carts to provide transportation for riders with disabilities

Academic Village Green

The Academic Village Green would be the core of the "Academic Village" and would create a unified open space to define the center of the campus. It would be framed by the Pedestrian Promenade, the Village Walk West, and the Village Walk East. This space would have an expansive lawn area and act as the primary gathering area for the campus. The design will need to be developed to allow for a variety of events such as temporary exhibit booths, staged events, group seating, informal lounging, and outdoor eating and drinking. The Academic Village Green will also need to connect to the Gullo II Café as an extension of this space.

South Green

The South Green would provide for an informal open space for sports-related activities as well as student events. The addition of several small to medium-sized covered spaces would allow for shelter from the sun and inclement weather, thus creating a more inviting and defined series of group gathering spaces.

Hillside Plaza

The proposed Hillside Plaza would function as the first-time visitor entry to the campus. It would be located adjacent to the preserved "Hillside" and link the natural sloping landscape of the Evergreen Hills to the core of the "Academic Village." It would also frame views from the internal campus to the "Hillside."

Sequoia Plaza

The Sequoia Plaza would provide links to and be framed by the Sequoia buildings and the proposed new parking area. It is conceived as a more formal space with both individual and group gathering spaces. It would provide outdoor gathering space in the science district and has the potential to create outdoor classrooms that support the curriculum and highlight or feature educational gardens that connect to the disciplines studied within the adjacent buildings.

East Plaza

The existing East (vehicular) Circle would be converted into a pedestrian-only plaza, referred to as the East Plaza, which would anchor the eastern end of the Pedestrian Promenade. The scale would be reduced to a courtyard with softscape and passive uses. This plaza would have a distinct character from the adjacent Arts Plaza and would flow into a smaller courtyard located between the adjacent buildings.

West Plaza

The existing West (vehicular) Circle would be converted into a pedestrian-only plaza, referred to as the West Plaza, which would anchor the western end of the Pedestrian Promenade. The scale would be reduced to a courtyard with softscape and passive uses that would contrast with the adjacent large Academic Village Green.

Tech Plaza

The new Tech Plaza would link the west cluster of buildings together around an outdoor gathering space. The Cedro Building, the new Applied Technology Building, and the new GED Building would frame the new student-focused plaza. The plaza would connect to programs and activities within the buildings and provide a much-needed outdoor collaboration/study space for students.

Recommended Landscape Improvements

Hillside Preservation

The northern "Hillside" is a significant landscape resource and backdrop to the campus. This northeastern edge of the campus is defined by the Montgomery Hill Park situated in the Evergreen Hills. Within the park, there are over 50 acres of small hills and valleys with unpaved trails. The existing Evergreen Fault and topography make it difficult to build in this area. The 2025 Updated FMP recommends that the hillside area north of the Evergreen Fault be preserved as a "no-build" zone for the campus. Avoiding development in this area would also maintain views into and across the "Hillside" from the central campus and surrounding off-campus areas.

Courtyards

Small courtyards are defined as pedestrian-scale outdoor spaces which accommodate small number of users and are generally found immediately adjacent to academic buildings. Small courtyards would be created outside existing and new buildings and would typically be used for seating and passive use gathering at the entry and exit routes to academic buildings. The landscape selections would emphasize the building entry points and would reinforce the individual and unique identity of the adjacent building discipline.

Campus Wayfinding and Signage

Wayfinding provides means reaching a destination within an acceptable amount of time and energy. A comprehensive wayfinding program would improve traffic patterns by providing essential information that people need to find the college and navigate the campus while improving accessibility and public safety. To meet these goals, EVC would develop a comprehensive wayfinding program for the campus. The program would include both wayfinding and identification signage and address life safety and accessibility requirements.

3.7.3 Additional Campus Projects not included in the 2025 Facilities Master Plan.

The following are projects that are not listed in the 2025 Updated FMP, but that will be implemented by the SJECCD on the EVC campus in the near term.

Corporation Yard/District Warehouse Parking Lot Covers

The campus proposes installing pre-fabricated metal cover over the existing corporation yard located along the northwestern border of the campus. In addition, the campus proposes placing a pre-fabricated metal cover along the southern edge of the District Warehouse parking lot. Both covers would be approximately 20 feet in height and would contain task lighting necessary to work around groundskeeping vehicles.

Soccer Field Bleachers

The campus proposes installing bleachers on the eastern side of the soccer field located along the southern border of the campus. The bleachers would seat approximately 2,000 spectators.

3.8 CAMPUS UTILITIES

3.8.1 Potable and Recycled Water Infrastructure

The San José Municipal Water System (SJMWS) provides water to the EVC campus. The SJMWS-owned underground lines connect to on-campus distribution lines at six locations (located along Yerba Buena Road and San Felipe Road). There is one additional connection to the recycled water system on Yerba Buena Road, just west of the College entrance (SJECCD 2001). Potable water is distributed throughout campus via two separate 8-inch and 10-inch water mains.

3.8.2 Wastewater Infrastructure

The City of San Jose provides wastewater service to the EVC campus. Wastewater collected throughout the campus flows to an 8-inch sewer main that ties into City's sewer main along San Felipe Road.

3.8.3 Stormwater

The existing stormwater drainage system on the EVC campus consists of subsurface reinforced concrete pipes ranging in size from 24 inches to 42 inches. The storm drain system discharges off campus into Yerba Buena Creek at two locations: one location is south of the Evergreen Lake and the second is at the southeastern corner of the campus property. Drainage pipe outfalls into the creek have sacked concrete and rip-rap protecting the slopes (SJECCD 2001).

3.8.4 Electricity and Natural Gas

Pacific Gas and Electric (PG&E) provides electricity and natural gas to the EVC campus. PG&E provides electricity to the EVC campus from 21 kVA lines that feed into the campus Central Energy Plant while natural gas is fed to the campus Central Energy Plant from an existing off-site PG&E main. Power and gas are then distributed to each building on the campus via direct-bury cable or piping or through the campus utility tunnel system. The EVC campus also receives power from a 1.4-megawatt (MW) photovoltaic system that was recently installed on the campus. This system provides about one-third of the campus' power.

3.9 PROJECT APPROVALS

As defined by CEQA, a Lead Agency is the public agency with the principal responsibility for approving a project. The SJECCD is the Lead Agency for implementation of the 2025 Updated FMP and the two additional campus projects. The Board of Trustees will hold at least one public hearing on the 2025 Updated FMP before deciding whether to authorize its implementation. The Board must certify the Final

EIR before making its decision on the 2025 Updated FMP. Individual development projects implemented at EVC under the 2025 Updated FMP may require approval from the following public agencies:

- Division of the State Architect (DSA) for buildings, handicap accessibility, fire and life safety;
- City of San José Public Works and Traffic;
- City of San José Fire Department for site access, fire hydrants/water pressure, and hazardous facility closure;
- Santa Clara County Water District; and
- San José Municipal Water District.

4.0 ENVIRONMENTAL IMPACT ANALYSIS

4.0.1 INTRODUCTION

This section presents an analysis of each environmental topic that has been identified through preliminary environmental analysis and the public scoping process as likely to be affected by the development of the Evergreen Valley College (EVC) campus under the 2025 Updated Facilities Master Plan (FMP) and two additional minor projects not included in the 2025 Updated FMP. For brevity all the development occurring on campus, including the 2025 Updated FMP and the two additional projects are referred hereinafter as the 2025 Updated FMP or proposed project.

Each topical subsection describes the environmental setting of the proposed project as it relates to that specific environmental topic; the impacts that could result from implementation of the proposed project; and mitigation measures that would avoid, reduce, or compensate for the significant impacts of the proposed project.

This Environmental Impact Report (EIR) is a program-level environmental assessment, which evaluates the effects of the implementation of the 2025 Updated FMP and focuses on full development of the campus under the 2025 Updated FMP. This EIR also evaluates the potential effects of individual projects that are part of the 2025 Updated FMP at a project level of analysis. Implementation of the 2025 Updated FMP does not constitute a commitment to any specific project, construction schedule, or funding priority.

Based on the input received during the EIR scoping process, as described in **Section 1.0, Introduction**, this EIR addresses the following topics in detail:

- Aesthetics
- Air Quality
- Biological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services (including Recreation)
- Transportation and Traffic
- Utilities and Service Systems

Potential impacts of the proposed project on Agricultural and Forestry Resources, Cultural Resources, Hazards and Hazardous Materials, Mineral Resources, and Population and Housing are addressed in the Initial Study prepared for the proposed project and were determined to require no further evaluation in this EIR (see **Appendix 1.0**).

4.0.2 LEVEL OF SIGNIFICANCE

Under the California Environmental Quality Act (CEQA), a variety of terms are used to describe the levels of significance of environmental impacts. The definitions of terms used in this EIR are presented below.

- **Significant and Unavoidable Impact.** An impact that exceeds the defined standards of significance and cannot be avoided or reduced to a less than significant level through implementation of feasible mitigation measures.
- **Significant Impact.** An impact that exceeds the defined standards of significance and that can be avoided or reduced to a less than significant level through implementation of feasible mitigation measures.
- **Potentially Significant Impact.** A significant impact that may ultimately be determined to be less than significant; the level of significance may be reduced through implementation of policies or guidelines (that are not required by statue or ordinance), or through further definition of the project detail in the future. Potentially significant impacts may also be impacts for which there is not enough information to draw a firm conclusion; however, for the purpose of this EIR, they are considered significant. Such impacts are equivalent to Significant Impacts and require the identification of feasible mitigation measures.
- **Less Than Significant Impact.** Impacts that are adverse but that do not exceed the specified standards of significance.
- **No Impact.** The project would not create an impact.

4.0.3 FORMAT OF TOPICAL SECTIONS

Each environmental topic considered in this section of the EIR is addressed under six primary subsections: Introduction, Environmental Setting, Regulatory Setting, Project Impacts and Mitigation Measures, Cumulative Impacts and Mitigation Measures, and References. An overview of the information included in these sections is provided below.

4.0.3.1 Introduction

The introduction section describes the topic to be analyzed and the contents of the analysis. It also provides the sources used to evaluate the potential impact of the project, and summarizes issues and concerns relative to the resource topic identified by the public and the agencies during the EIR scoping process.

4.0.3.2 Environmental Setting

The environmental setting section for each environmental topic provides a description of the applicable physical setting of the project site and its surroundings (e.g., existing land uses, existing soil conditions, existing traffic conditions). Because the 2025 Updated FMP is a long-term development plan for the EVC campus and the full development of the campus under this plan would not occur until 2025 or even later, future no-project conditions are also projected for certain environmental topics, such as traffic, in order to accurately evaluate the impacts of the 2025 Updated FMP.

4.0.3.3 Regulatory Setting

The overview of regulatory considerations for each environmental topic is organized by agency, including applicable federal, state, regional, and local policies.

4.0.3.4 Project Impacts and Mitigation Measures

This subsection lists significance criteria that are used to evaluate impacts, followed by a discussion of the impacts that would result from implementation of the proposed project. Impacts are numbered and shown in bold type, and the mitigation measures are numbered to correspond to the impact. Impacts and mitigation measures are numbered consecutively within each topic.

4.0.3.5 Cumulative Impacts and Mitigation Measures

The *2013 State CEQA Guidelines* suggest that the analysis of cumulative impacts for each environmental factor can employ one of two methods to establish the effects of other past, current, and probable future projects. A lead agency may use a list of projects, including those outside the control of the agency, or, alternatively, a summary of projections. These projections may be from an adopted general plan or related planning document, or from a prior environmental document that has been adopted or certified, and these documents may describe or evaluate regional or area-wide conditions contributing to the cumulative impact. The cumulative analysis in this EIR is based on a list of approved and pending projects provided in the traffic study prepared for the proposed project. The details of these projects are listed below in **Table 4.0-1, Approved and Pending Projects.**

Table 4.0-1
Approved and Pending Projects

City of San Jose Project Number	Location	Description
PDC03-015	Chisin Street E/O Yerba Buena Road	21 du Single-Family Detached Residential
PDC04-098	San Felipe Road S/O Yerba Buena Avenue	9 du Single-Family Attached Residential
PDC05-048	Fowler Road & Yerba Buena Road	550 du Single-Family Attached Residential
		550 du Single-Family Detached Residential
PDC05-049	Yerba Buena Road E/O Verona Road	225 du Single-Family Detached Residential
		1 ac Park
PDC05-052	Yerba Buena Road & Old Yerba Buena Road	675 SF detached
		39 ac Open Space
PDC05-053	Yerba Buena Road E/O San Felipe Road	500 du Residential
		1 ac Open Space
		195 ksf Commercial/Office
PDC09-010	Cadwallader Avenue S/O Prunetree Court	40 du Single-Family Detached Residential
PDC09-020	S/O Evergreen Village Square	35 du Single-Family Attached Residential
PDC10-001	Ruby Avenue & Aborn Road	103 du Single-Family Detached Residential
		15 ksf Retail
PDC99-098	Fowler Road & Altia Avenue	1237.559 ksf Campus Industrial

Source: Evergreen Valley College Facilities Master Plan Transportation Impact Analysis, 2012
ksf – thousand square feet; du – dwelling units; ac - acres

The cumulative impacts discussion describes the cumulative impacts of the 2025 Updated FMP, and determines whether the implementation of the 2025 Updated FMP in combination with past, present and reasonably foreseeable future development would result in a significant cumulative impact, and, if so, whether the project's contribution to the significant cumulative impact would be cumulatively considerable.

Section 15130 of the *2013 State CEQA Guidelines* provides direction regarding cumulative impact analysis as follows:

- An EIR should not discuss cumulative impacts that do not result in part from the proposed project.
- A lead agency may determine that an identified cumulative impact is less than significant, and shall briefly identify facts and analysis in the EIR supporting its determination.
- A lead agency may determine a project's incremental effect is not cumulatively considerable, and therefore is not significant, and shall briefly describe in the EIR the basis of its determination.

- A lead agency may determine a project's cumulatively considerable contribution to a significant cumulative impact may be rendered less than cumulatively considerable and therefore residually not significant, if the project implements or funds its fair share of mitigation measure or measures designed to alleviate the cumulative impact.

4.0.3.6 References

This subsection lists the references used to prepare the environmental setting and impact analysis for each section of the EIR.

4.1 AESTHETICS

4.1.1 INTRODUCTION

This section describes existing visual resources on the Evergreen Valley College (EVC) campus and the surrounding area and analyzes the potential for implementation of the 2025 Updated Facilities Master Plan (FMP) and the two other projects to adversely affect those resources. For purposes of this analysis, visual or aesthetic resources are generally defined as the natural and built landscape features that are visible from public vantage points both on and off campus. The 2025 Updated FMP does not describe specific design of future buildings. Therefore, the effects of development under the 2025 Updated FMP, including the changes in the visual character and quality of the campus and the potential for excessive light and glare, are examined based on proposed building mass and height.

No public and agency comments related to aesthetics were received in response to the Notice of Preparation (NOP) issued for this EIR.

4.1.2 ENVIRONMENTAL SETTING

4.1.2.1 Study Area

The study area includes the existing EVC campus and the areas from which the campus is visible within a 0.5-mile radius. The term "campus" encompasses the entire 158-acre campus. See **Section 3.0, Project Description**, for further details on the project site and surroundings.

4.1.2.2 Visual Character of Evergreen Valley College Campus

Topography and Vegetation

The EVC campus is located on the eastern side of the Santa Clara Valley, 300 to 460 feet above sea level, and approximately 18 miles from the southern end of the San Francisco Bay. Although the campus is surrounded by a hilly region, the topography of the developed portion of the campus is relatively flat. Vegetation on the campus consists of small landscaped areas outside the campus buildings, turf grass covering sports fields in the southern portion of the campus, and other landscaping throughout the campus.

Trees are located throughout the campus, including in areas bordering campus parking lots, along pedestrian paths, and near a number of campus buildings. The most prevalent trees on campus are ornamental oaks (including cork oak). Other tree species on the campus include redwood (*Sequoia* *sempervirens*), valley oak (*Quercus lobata*), coast live oak (*Quercus agrifolia*), pepper trees (*Schinus molle*), black walnut (*Juglans californica*), and almond (*Prunus dulcis*) (SJECCD 2001).

Ornamental oaks are located in the central campus area, along pedestrian paths, near a number of campus buildings, throughout campus parking lots, and along the approaches to the campus and parking areas. Trees in the central campus area and along pedestrian paths provide a landscaping and shading function, and enhance the visual character of the campus. Trees located throughout the parking lots also provide a landscaping and shading function; these trees enhance the visual character of the parking lots (SJECCD 2001).

Disturbed mixed oak woodland is present on the undeveloped hillside (east of the central campus area). Tree species include coast live oak, valley oak, black walnut, and almond. Trees are scattered along the mostly grassy hillside, and enhance the visual character of the hillside (SJECCD 2001).

Coast live oaks are located in the southern part of the undeveloped area of the campus (adjacent to Yerba Buena Road). This area also contains a few redwood trees. Although trees located in this area are mature, the trees are scattered and do not screen views of the campus from Yerba Buena Road. As this part of campus is not developed (and is not used by students), the trees do not provide a landscape or shading function for campus uses. Scattered redwoods are also present in the area around Evergreen Lake, and enhance the visual character of the area (SJECCD 2001).

Structures

Figure 3.0-3, Evergreen Valley College Campus, (in **Chapter 3.0**) shows the existing buildings and other facilities on the campus. Existing campus buildings are mainly in the central and northeastern portions of the campus. Sports fields, such as the softball field, multi-use athletic field, soccer field, and tennis courts are mainly located in the central and southeastern portions of the campus. Evergreen Lake (a manmade lake that serves as a drainage pond) and the amphitheater are located in the southeastern corner of campus. Existing campus buildings are generally one to two stories high. The existing buildings include a variety of shapes and scales and have been constructed with a variety of materials, including brick, stucco, wood, and glass, among others.

As shown in **Figure 3.0-2, Surrounding Land Uses**, (in **Chapter 3.0**), buildings surrounding the campus consist mainly of one- to two-story single-family homes to the north, south and west. A commercial shopping center is located on the northeastern corner of San Felipe and Yerba Buena Road intersection while a church is located near the south-central portion of the campus off of Yerba Buena Road. The commercial shopping center consists of several single-story buildings that are approximately 20 feet in height while the church consists of one single-story building.

Land uses in the campus vicinity consist of low-density suburban uses. A large open area in the southwestern corner of the campus provides partial views of the main campus from the intersection of San Felipe and Yerba Buena Roads. Partial views of the central portion of the campus are also available from Yerba Buena Road along the southern border of the campus and from Yerba Buena Road at higher elevations west of the campus.

4.1.2.3 Existing Campus Views

The western portion of the campus is undeveloped and views of the open, grassy hills in this area are visible from both the campus and the surrounding areas. The eastern portion of the campus is developed and there are existing views of buildings and sports facilities from both the campus and from nearby public viewpoints such as roadways and Montgomery Hill Park. As shown in **Figure 4.1-1, Viewpoint Locations**, several views from vantage points within and around the campus were selected to depict the existing visual character of the campus. **Figures 4.1-2** through **4.1-5, Existing Campus Views**, provide photographs of the campus from these vantage points.

Viewpoint 1

Viewpoint 1, on **Figure 4.1-2** provides a view of the Library/Educational Technology Center, looking northwest from the edge of Parking Lot 4A. This view is from the vantage point of a pedestrian walking west on a pathway to the south of the parking lot. The parking lot and the southern face of the Library/Educational Technology Center are visible in the foreground, while the hills that border the northern portion of the campus are visible in the background.

Viewpoint 2

Viewpoint 2, on **Figure 4.1-2** provides a view of open space reserved for future development looking southwest from the edge of a drainage basin located to the west of Parking Lot 4A. This view is from the vantage point of a pedestrian walking west on a pathway adjacent to the racquetball courts. An open field consisting of dry grass and gravel is visible in the foreground while the commercial shopping center located at the northeast corner of San Felipe and Yerba Buena Road intersection is in the background.

Viewpoint 3

Viewpoint 3, on **Figure 4.1-3** provides a view of a pathway looking northeast from the west traffic circle. The path way is flanked by the buildings of Cluster Roble to the left and portable buildings to the right. This view is from the vantage point of a vehicle and/or pedestrian traveling around the circle.

The pathway lined with mature trees, grass turf, and light poles is visible in the foreground, while views of the hills that border the northern portion of the campus are visible in the background.

Viewpoint 4

Viewpoint 4, on **Figure 4.1-3** provides a view of the Acacia Cluster of buildings and the Administration/Student Services Center looking southeast from the service road that borders the northern edge of the central campus. The view is from the vantage point of a vehicle traveling east along the service road. A pathway leading to the east traffic circle, existing trees, and grass turf are visible in the foreground.

Viewpoint 5

Viewpoint 5, on **Figure 4.1-4** provides a view of the east traffic circle looking west from the Art Plaza. The view is from the vantage point of a pedestrian walking east and exiting the plaza. A stairway, the plaza, and decorative trees are visible in the foreground while the traffic circle surrounded by bollards is visible in the middle ground.

Viewpoint 6

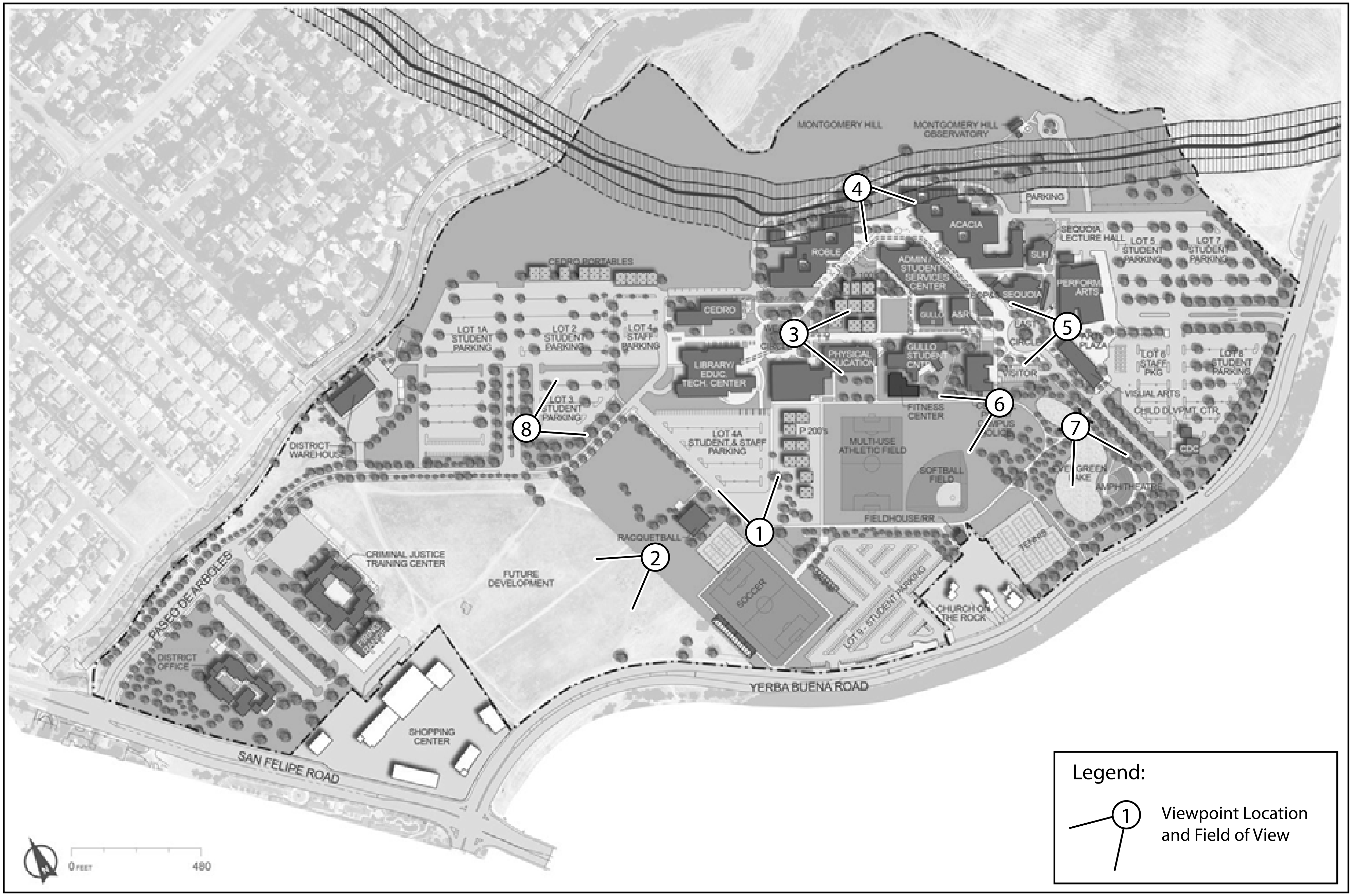
Viewpoint 6, on **Figure 4.1-4** provides a view of the multi-use athletic field looking southwest from the Central Energy Plant. The view is from the vantage point of a pedestrian walking west along the pathway that borders the field to the north. The grass field and trees that surround the field are prominent in the foreground. Portable buildings and stadium lights for the soccer field are visible in the background.

Viewpoint 7

Viewpoint 7, Figure 4.1-5 provides a view of Evergreen Lake looking south from the pedestrian bridge that traverses the northern portion of the lake. The view is from the vantage point of a pedestrian walking northeast across the bridge. The fountains that circulate water in the lake are visible in the foreground. The amphitheater and trees that line the lake are visible in the background.

Viewpoint 8

Viewpoint 8, on **Figure 4.1-5** provides a view of Parking Lot 3 looking east from an access road off Paseo de Arboles. The view is from a vehicle traveling northbound on the access road. Vehicles and trees typical of the parking lots that surround the campus are visible in the foreground. Partial views of the hills that line the northern border of the campus are visible in the background.



SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **4.1-1**

Viewpoint Locations

Viewpoint 1

Viewpoint 2

SOURCE: Impact Sciences, Inc. – May 2012

FIGURE **4.1-2**

Existing Campus Views

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Viewpoint 3

Viewpoint 4

SOURCE: Impact Sciences, Inc. – May 2012

FIGURE **4.1-3**

Existing Campus Views

0461-004•05/12

Viewpoint 5

Viewpoint 6

SOURCE: Impact Sciences, Inc. – May 2012

FIGURE **4.1-4**

Existing Campus Views

Viewpoint 7

Viewpoint 8

SOURCE: Impact Sciences, Inc. – May 2012

FIGURE **4.1-5**

Existing Campus Views

0461-004•05/12

4.1.2.4 Existing Lighting

For purposes of this analysis, "light" refers to light emissions, or the degree of brightness, generated by artificial lighting. This may include point sources (i.e., focused points of origin such as unshielded light bulbs, illuminated signs, or interior lighting visible through windows) or from indirectly illuminated sources of reflected light such as exterior building lighting and streetlights. Vehicle headlights can also produce both point sources of light and indirect, reflected illumination. Light may be directed downward to illuminate an area or surface, cast upward into the sky and refracted by atmospheric conditions (skyglow), or cast sideways and outwards onto off-site properties (overspill). Skyglow and light overspill are considered forms of light pollution.

The effects of nighttime lighting are contextual and depend upon the light source's intensity, its proximity to light-sensitive land uses (i.e., sensitive receptors such as residences and schools), and the existing lighting environment in the vicinity of a project site. Adverse lighting impacts may occur when project-related lighting is visually prominent and decreases available views, alters the community or neighborhood character, or illuminates a sensitive land use. Nighttime illumination of sensitive receptors may adversely affect certain land use functions, such as those of a residential or institutional nature, since such uses are typically occupied during evening hours and occupants can be disturbed by bright lights.

Existing nighttime lighting at EVC is located throughout the campus, along pedestrian walkways, in parking lots, and outside the campus buildings. The soccer field and tennis courts, located along the southern edge of the campus, are lit at night by high-intensity light fixtures located on approximately 80-foot-tall standards. The multi-use athletic field and tennis courts, located in the center of the campus, are not lit at night.

4.1.2.5 Existing Glare

Glare, or "unwanted source luminance," is defined as focused, intense light directly emanated by a source or indirectly reflected by a surface from a source. There is no absolute threshold for glare, since it is contextual and may not be considered problematic unless it is directed at a sensitive receptor or interferes with a specific activity. Glare can be categorized as discomforting (annoying without interfering with activities), disabling (reducing contrast and therefore impairing visual performance), and blinding (of sufficient intensity to cause residual loss of visual distinction of objects, colors, or brightness).

Daytime glare is typically caused by the reflection of sunlight from highly reflective surfaces at or above eye level. Reflective surfaces are generally associated with buildings clad with broad expanses of highly polished surfaces or with broad, light-colored areas of paving. Parking lots with broad, unshielded expanses of parked car windshields can also produce substantial glare. Daytime glare is generally most pronounced during early morning and late afternoon hours when the sun is at a low angle and the potential exists for intense reflected light to interfere with vision and driving conditions. Daytime glare may also hinder outdoor activities conducted in surrounding land uses, such as sports.

Nighttime glare refers to direct, intense, focused light as well as reflected light and can hamper visibility. Glare caused by direct sources of light generally originates from mobile and therefore transitory sources, such as automobiles. Glare may also originate from particularly intense stationary sources, such as floodlights. As with daytime sun glare, such intense light may cause undesirable interference with driving or other activities.

There are currently no substantial sources of glare on the campus. Campus buildings generally do not have large areas of reflective glass or metal. The campus parking lots are partially screened by trees, reducing potential daytime glare. Campus roadways and parking lots are not heavily used at night.

4.1.3 REGULATORY SETTING

The proposed project would be located on land owned and operated by the San José/Evergreen Community College District (SJECCD). As a state entity, SJECCD is exempted by the state constitution from compliance with local land use regulations, including general plans and zoning. However, SJECCD seeks to cooperate with local jurisdictions to reduce any physical consequences of potential land use conflicts to the extent feasible. Goals and policies from the Envision San José 2040 General Plan (2011) that relate to aesthetics and a summary of the San José Tree Ordinance are provided below.

4.1.3.1 Envision San José 2040 General Plan

General City Design

Policy CD-1.24 Within new development projects, include preservation of ordinance-sized and other significant trees, particularly natives. Avoid any adverse effect on the health and longevity of such trees through design measures, construction, and best maintenance practices. When tree preservation is not feasible, include replacements or alternative mitigation measures in the project to maintain and enhance our Community Forest.

Community Forest

Policy MS-21.4 Encourage the maintenance of mature trees, especially natives, on public and private property as an integral part of the community forest. Prior to allowing the removal of any mature tree, pursue all reasonable measures to preserve it.

Policy MS-21.5 As part of the development review process, preserve protected trees (as defined by the Municipal Code), and other significant trees. Avoid any adverse effect on the health and longevity of protected or other significant trees through appropriate design measures and construction practices. Special priority should be given to the preservation of native oaks and native sycamores. When tree preservation is not feasible, include appropriate tree replacement, both in number and spread of canopy.

4.1.3.2 San José Tree Ordinance

The San José Tree Removal Ordinance (Chapter 13.32 of the City Municipal Code) requires that a Tree Removal Permit be obtained for the removal of any tree on private property with a trunk circumference (measured 2 feet above grade) of 56 inches or greater (which translates into about 18 inches in diameter). Although this ordinance does not specifically apply to the College, it is mentioned here because it is referenced in General Plan policies regarding trees as a resource.

4.1.4 IMPACTS AND MITIGATION MEASURES

4.1.4.1 Standards of Significance

In accordance with Appendix G of the *2013 California Environmental Quality Act (CEQA) Guidelines*, the impacts of the proposed project related to aesthetics would be considered significant if it 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.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

4.1.4.2 Issues Not Discussed Further

The analysis in the Initial Study prepared for the proposed project and circulated with the NOP concluded that further analysis of the following issues was not required in the EIR.

- Have a substantial adverse effect on a scenic vista.

A scenic vista is generally defined as an expansive view of highly valued landscape as observable from a publicly accessible vantage point. Although there are views across the campus to the Evergreen Hills, and views from within the campus that are of high visual quality, the existing development on the campus itself does not interfere with visual resources. There are no scenic vistas that include the campus as a major part of the view. The campus is screened from the view of adjacent residents south of Park Estates Way by riparian vegetation to the south of the campus. The campus is partially screened from the view of adjacent residents north of Falls Creek Drive by riparian vegetation. Views of the north campus parking lot and portions of campus buildings are available from areas along Falls Creek Drive; however, these views are not of high visual quality (SJECCD 2000). Distant views of the campus are available from higher elevations along Yerba Buena Road southwest of the campus; from these viewpoints, campus development appears as a continuous part of commercial and residential development against the backdrop of surrounding residential development and open space.

The proposed new structures would be sited in developed areas of the campus. They would be similar in type and scale to the existing college facilities and would be built within the existing campus boundaries. Furthermore, as noted above, there are no scenic vistas that include the campus as a major part of the view. Therefore, there would not be a substantial change to any scenic vistas. Based on these factors, the proposed project would have no impact with regard to this criterion.

- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

There are no state-designated scenic highways in the vicinity of the campus (California Department of Transportation 2011). Therefore, changes on the campus as a result of implementing the 2025 Updated FMP would not affect visual resources associated with any state-designated or local scenic highway. There would be no impact with regard to this criterion.

4.1.4.3 Methodology

The evaluation of aesthetic resources requires the application of a process that objectively identifies the visual features of the campus, their relation to the overall character of the campus, and their prominence within panoramic views of the area, if any. Changes to those resources as a result of 2025 Updated FMP implementation are then assessed. Light and glare impacts are also evaluated through an evaluation of the changes to the present nighttime lighting environment and daytime and nighttime glare conditions as a result implementing the 2025 Updated FMP.

4.1.4.4 Project Impacts and Mitigation Measures

Impact AES-1: **Implementation of the 2025 Updated FMP could substantially degrade the existing visual character or quality of the site and its surroundings.**

Level of Significance: Potentially significant

Buildout of the 2025 Updated FMP would involve the demolition of some existing buildings, construction of new buildings, and renovation of existing buildings on the campus in an area that is already developed. In addition, new parking lots and improved roadways would be added along the periphery of the campus. As a result, buildout of the 2025 Updated FMP would incrementally alter the existing visual character of the campus.

The specific designs of most of the new buildings that would be constructed on the campus are not known at this time, and the evaluation of impacts is based mainly on the general building mass, height, and location. The mass and height of the proposed buildings would be similar to existing buildings on the campus. A majority of the new buildings would be constructed within or adjacent to the existing core of the campus, and in some cases would replace existing buildings. A portion of one of the proposed GED/Engineering/Applied Tech buildings would be located on the site of the Cluster Roble buildings, while the proposed Fitness Center, GED building, and Math and Science buildings would be located adjacent to the existing physical education and Gullo I student center buildings on a portion of the existing multi-purpose field. As a result, the type and scale of development on the campus at buildout of the 2025 Updated FMP would generally be similar to existing conditions. Proposed new buildings would not be substantially different from the existing buildings and would be designed to coordinate with them in exterior appearance, height, and mass. Views of the campus from both on-campus and off-campus viewpoints with the addition of the proposed new buildings would not be substantially different from existing views.

In addition, the 2025 Updated FMP includes several elements that would improve the visual character of the campus. The plan recommends that planting, signage, and roadway concepts be developed for the two main vehicular entry drives to campus – San Felipe Road/Paseo de Arboles and East Campus Entry/Yerba Buena Road. In addition, the plan includes the provision of new or upgraded open space areas throughout the campus core. For example, the Academic village green would create a unified open space that defines the center of campus while the South Green would provide for an informal open space for sports related activities as well as student events. New landscaping throughout the campus would increase the quality and visibility of campus open spaces. These elements of the 2025 Updated FMP would have a generally positive impact on visual character of the campus.

Finally, the SJECCD is in the process of preparing design review guidelines which will guide development on the campus. The guidelines will be complete by summer 2013. In addition, a design committee consisting of district administration and staff and/or campus administration, facility and staff will review each project on a project-by-project basis to ensure that the exterior appearance, height, and mass of each facility is similar to the exterior appearance, height, and mass of existing buildings.

Based on these factors, construction of the building programs and landscape improvements proposed under the 2025 Updated FMP would not have a substantial adverse effect on visual character of the campus.

In addition to the improvements under the 2025 Updated FMP, the campus plans on installing prefabricated metal covers over the existing corporation yard and along the southern boundary of the District Warehouse parking lot located along the northwestern border of the campus and bleachers on the eastern side of the soccer field on the south side of the campus. Both covers would be similar in height and style to the adjacent District Warehouse while the bleachers would not be of sufficient size to conflict with adjacent improvements. In addition, views of the prefabricated metal covers from the area north of Falls Creek Drive would be partially blocked by intervening vegetation along Evergreen Creek.

Implementation of the 2025 Updated FMP would, however, result in the removal of several of the existing trees on the campus. Where feasible, trees would be preserved and trees lost to development would be replaced by new trees. These factors would support a conclusion that the 2025 Updated FMP would not result in a substantial adverse effect on the visual character of the campus. However, the extent of actual tree removal is not known at this time, and construction adjacent to or near existing mature trees could result in the potential loss of trees. For those reasons, the potential impacts from the removal of mature trees that enhance the visual character of the campus would be significant.

To address the potentially significant impact to visual character related to the loss of trees, the following mitigation measure is proposed.

Mitigation Measures:

MM AES-1: Prior to the final design of each project, a landscape architect shall review the construction footprint of the project. All feasible measures, such as changes to the building footprint, shall be used to preserve and protect healthy mature trees.

Trees that cannot be saved shall be considered for relocation or replaced with new trees (due to the costs of tree relocation, trees that cannot be saved would most likely be replaced).

Significance after Mitigation: Less than significant

Impact AES-2: **Implementation of the 2025 Updated FMP would not create new sources of substantial light or glare which could adversely affect day or nighttime views in the area.**

Level of Significance: Less than significant

The proposed project would shift some light sources and could increase nighttime lighting in portions of the campus, due to the presence of new campus buildings and parking. These changes could affect daytime and nighttime views. New light sources would be introduced on the south-central portion of the campus where the Fitness Center, GED Building, and Math and Science buildings are proposed. In addition, the proposed GED/Engineering/Applied Tech buildings and the Applied Tech building would increase light sources in the northwestern portion of the campus. Finally, the pre-fabricated metal covers over the existing corporation yard and along the southern boundary of the District Warehouse parking lot located along the northwestern border of the campus would contain task lighting necessary to work around groundskeeping vehicles. The increase in day and nighttime lighting that would occur as a result of the 2025 Updated FMP would not significantly affect residential neighborhoods in the project vicinity as the hill on the northern portion of the campus and vegetation along Evergreen Creek screens the campus from residential neighborhoods to the north, while vegetation along Yerba Buena Creek screens the campus from residential neighborhoods to the south. With regard to the church located adjacent to the southern portion of the campus, new development proposed by the 2025 Updated FMP would be located approximately 450 feet from the church, and would be partially screened by intervening trees and landscaping. In addition, exterior lighting on the campus would be downward directed and shielded to reduce light spillover. Lighting from these proposed structures would therefore not negatively affect operations at the church. Finally, the soccer field bleachers would contain no lighting elements. For these reasons, visual impacts associated with the introduction of new light sources and increase in existing sources is considered less than significant.

4.1.4.5 Cumulative Impacts and Mitigation Measures

The City of San José is predominately developed and the planned development occurring in the City near the project site is redevelopment of existing areas. Therefore, the aesthetic impact of reasonably foreseeable development would not substantially degrade the visual character of the City's suburban setting, since most development would alter the visual appearance of those sites from one developed land use type to another. Some localized visual resources such as trees could be lost. However, as the proposed project includes mitigation to minimize impacts due to the loss of trees to a less than significant level, the contribution of the proposed project to this cumulative impact would be less than cumulatively considerable. Additionally, it is not expected that future projects would cause significant impacts to light and glare given the existing contiguous light sources already present in the City and the fact that areas in the immediate vicinity of the campus are either already developed or are protected open space. Therefore, cumulative impacts with regard to light and glare would be less than significant.

4.1.5 REFERENCES

California Department of Transportation. 2007. "California Scenic Highway Mapping System." www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm.

City of San José. 2011. *Envision San José 2040 General Plan*. Adopted November 1.

City of San José. *San José Municipal Code, Chapter 13.32*

San José/Evergreen Community College District (SJECCD). 2000. Initial Study for Evergreen Valley College Facilities Master Plan.

San José/Evergreen Community College Distract (SJECCD). 2001. Evergreen Valley College Facilities Master Plan Final Environmental Impact Report. SCH No. 2000112004.

4.2 AIR QUALITY

4.2.1 INTRODUCTION

This section presents existing air quality conditions in the area of the Evergreen Valley College (EVC) campus and analyzes the potential air quality impacts associated with implementation of the 2025 Updated Facilities Master Plan (FMP). This section also provides a description of the regulatory framework for air quality management on a federal, state, and regional level. In addition, this section reports the types and estimated quantities of air emissions that would be generated on a short-term basis due to construction and over the long-term due to the operation of the campus at buildout under the 2025 Updated FMP and evaluates the significance of the impacts from the estimated emissions.

The analysis of air quality impacts is based on air quality regulations administered by the United States Environmental Protection Agency (US EPA), the California Air Resources Board (CARB), and the Bay Area Air Quality Management District (BAAQMD) with each agency responsible for different aspects of the proposed project's activities. The roles of these agencies are discussed in detail in the Regulatory Considerations section. Emission calculations conducted for the proposed project are presented in **Appendix 4.2** of this environmental impact report (EIR).

No public or agency comments related to air quality were received in response to the Notice of Preparation (NOP) issued for this EIR.

4.2.2 ENVIRONMENTAL SETTING

4.2.2.1 Climate and Meteorology

The project area is located in the foothills to the east of the City of San José, which is situated in the Santa Clara Valley in the southern portion of the San Francisco Bay Area and within the boundaries of the San Francisco Bay Area Air Basin (SFBAAB or Basin). The climate of the Bay Area is Mediterranean in character, with mild, rainy winter weather from November through March and warm, dry weather from June through October. Pollutant emissions are high in the Santa Clara Valley, especially from motor vehicle congestion. High summer temperatures, stable air, and mountains surrounding the valley combine to promote ozone formation. In addition to the many local sources of pollution, prevailing winds carry ozone precursors from San Francisco, San Mateo, and Alameda counties to the Santa Clara Valley. The valley tends to channel pollutants to the southeast. In addition, on summer days with low-level inversions, ozone can be recirculated by southerly drainage flows in the late evening and early morning and by the prevailing northwesterlies in the afternoon. A similar recirculation pattern occurs in the winter, affecting levels of carbon monoxide and particulate matter. This movement of the air up and down the valley increases the impact of the pollutants significantly.

Mean minimum temperatures in the project area range from high 50s in the summer to low 40s in the winter. Mean maximum summer temperatures are in the low 80s and winter maximum temperatures are in the high 50s. Winds in the valley are greatly influenced by the terrain, resulting in a prevailing flow that roughly parallels the valley's northwest-southeast axis. A north-northwesterly sea breeze flows through the valley during the afternoon and early evening, and a light south-southeasterly drainage flow occurs during the late evening and early morning. In the summer the southern end of the valley sometimes becomes a "convergence zone," when air flowing from the Monterey Bay is channeled northward into the southern end of the valley and meets with the prevailing north-northwesterly winds.

Wind speeds are greatest in the spring and summer and weakest in the fall and winter. Nighttime and early morning hours frequently have calm winds in all seasons, while summer afternoons and evenings are quite breezy. Strong winds are rare, associated mostly with the occasional winter storm.

4.2.2.2 Regional Air Quality

The determination of whether a region's air quality is healthful or unhealthful is made by comparing contaminant levels in ambient air samples to national and state standards. Health-based air quality standards have been established by California and the federal government for the following criteria[1] air pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter less than 10 microns in diameter (PM10), fine particulate matter less than 2.5 microns in diameter (PM2.5), and lead (Pb). These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. California has also established standards for sulfates, visibility reducing particles, hydrogen sulfide, and vinyl chloride. The state and national ambient air quality standards for each of the monitored pollutants and their effects on health are summarized in **Table 4.2-1, Ambient Air Quality Standards**.

1 "Criteria" pollutants are air pollutants for which the US EPA has established air quality standards. They are so named because the EPA periodically publishes criteria documents to help establish the federal air quality standards.

Table 4.2-1
Ambient Air Quality Standards

Air Pollutant	Concentration/Averaging Time: State Standard (CAAQS)	Concentration/Averaging Time: Federal Primary Standard (NAAQS)	Most Relevant Health Effects
Ozone	0.09 ppm, 1-hr. avg. 0.070 ppm, 8-hr avg.	0.075 ppm, 8-hr avg. (3-year average of annual 4th-highest daily maximum)	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage
Nitrogen Dioxide[1]	0.18 ppm, 1-hr avg. 0.030 ppm, annual arithmetic mean	0.100 ppm, 1-hr avg. (3-year avg. of the 98th percentile of the daily maximum 1-hour avg.) 0.053 ppm, annual arithmetic mean	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extrapulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration
Carbon Monoxide	20 ppm, 1-hr avg. 9.0 ppm, 8-hr avg.	35 ppm, 1-hr avg. (not to be exceeded more than once per year) 9 ppm, 8-hr avg. (not to be exceeded more than once per year)	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses
Sulfur Dioxide[2]	0.25 ppm, 1-hr. avg. 0.04 ppm, 24-hr avg.	0.075 ppm, 1-hr avg. (3-year avg. of the 99th percentile)	Bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
Respirable Particulate Matter (PM10)	50 μg/m³, 24-hr avg. 20 μg/m³, annual arithmetic mean	150 μg/m³, 24-hr avg. (not to be exceeded more than once per year on average over 3 years)	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in the elderly
Fine Particulate Matter (PM2.5)	12 μg/m³, annual arithmetic mean	35 μg/m³, 24-hr avg. (3-year average of 98th percentile) 15 μg/m³, annual arithmetic mean (3-year average)	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in the elderly
Lead[3]	1.5 μg/m³, 30-day avg.	1.5 μg/m³, calendar quarter 0.15 μg/m³, 3-month rolling average	(a) Increased body burden; and (b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	Reduction of visual range to less than 10 miles at relative humidity less than 70%, 8-hour avg. (10:00 AM–6:00 PM)	None	Visibility impairment on days when relative humidity is less than 70 percent.

Air Pollutant	Concentration/Averaging Time State Standard (CAAQS)	Federal Primary Standard (NAAQS)	Most Relevant Health Effects
Sulfates	25 μg/m³, 24-hr avg.	None	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and (f) Property damage
Hydrogen Sulfide	0.03 ppm, 1-hr avg.	None	Odor annoyance
Vinyl Chloride[3]	0.01 ppm, 24-hr avg.	None	Known carcinogen

Source: South Coast Air Quality Management District, Final Program Environmental Impact Report for the 2007 Air Quality Management Plan, (2007) Table 3.1-1, p. 3.1-3.
μg/m³ = microgram per cubic meter.
ppm = parts per million by volume.
[1] *On January 25, 2010, the US EPA promulgated a new 1-hour NO_2 standard. The new 1-hour standard is 0.100 parts per million (188 micrograms per cubic meter [μg/m³]) and became effective on April 12, 2010.*
[2] *On June 3, 2010, the US EPA issued a new 1-hour SO_2 standard. The new 1-hour standard is 0.075 parts per million (196 μg/m³). The US EPA also revoked the existing 24-hour and annual standards citing a lack of evidence of specific health impacts from long-term exposures. The new 1-hour standard becomes effective 60 days after publication in the Federal Register.*
[3] *CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.*

Air quality of a region is considered to be in attainment of the National Ambient Air Quality Standards (NAAQS) if the measured ambient air pollutant levels are not exceeded more than once per year, except for O_3, PM10, PM2.5, and those based on annual averages or arithmetic mean. The NAAQS for O_3, PM10, and PM2.5 are based on statistical calculations over one- to three-year periods, depending on the pollutant. The SFBAAB is currently designated as a marginal nonattainment area with respect to the national standard for 8-hour O_3, and nonattainment for 24-hour PM2.5, and is designated as attainment or unclassifiable for all other pollutants. Additional details regarding the attainment status are provided later in this section.

Air quality of a region is considered to be in attainment of the state standards if the measured ambient air pollutant levels for O_3, CO, SO_2 (1- and 24-hour), NO_2, PM10, PM2.5, and visibility reducing particles are not exceeded and all other standards are not equaled or exceeded at any time in any consecutive three-year period. The SFBAAB is currently designated as a nonattainment area with respect to the state standards for O_3, PM10, and PM2.5 and is designated as attainment or unclassified for all other pollutants. Additional details regarding the attainment status are provided later in this section.

The project site is located within the SFBAAB, which includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties as well as the southern half of Sonoma County and the southwestern portion of Solano County. The Basin is affected by the pollutants generated by dense population centers, heavy vehicular traffic, and industry. However, as mentioned above, coastal sea breezes tend to transport pollutants generated within the SFBAAB to inland locations such as the Santa Clara Valley and the Central Valley.

The air pollutants within the Basin are generated by two categories of sources: stationary and mobile. Stationary sources comprise "point sources," which have one or more emission sources at a single facility, or "area sources," which are widely distributed and produce many small emissions. Point sources are usually associated with manufacturing and industrial uses and include sources such as refinery boilers or combustion equipment that produce electricity or process heat. Examples of area sources include residential water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products, such as barbecue lighter fluid or hair spray. "Mobile sources" refer to operational and evaporative emissions from on- and off-road motor vehicles.

4.2.2.3 Local Air Quality

The BAAQMD operates more than 30 air-quality monitoring stations throughout the Basin to measure ambient concentrations of the criteria pollutants. The nearest monitoring station to the project site is located on Jackson Street in San José, approximately 8 miles northwest of the project site. **Table 4.2-2, Ambient Pollutant Concentrations Measured Nearest the Project Site**, lists the concentrations registered and the exceedances of California Ambient Air Quality Standards (CAAQS) and the NAAQS that have occurred at this monitoring station from 2009 through 2011, the most recent years for which data are available. During this period (i.e., 2009 through 2011), the station registered exceedances of the state and federal ozone standards, the state 24-hour PM10 standard, and federal 24-hour PM2.5 standard. No other exceedances of the state or federal standards for NO_2, CO, or SO_2 were registered at this station between 2009 and 2011.

Table 4.2-2
Ambient Pollutant Concentrations Measured Nearest the Project Site

Pollutant	Standards [1]	Year 2009	Year 2010	Year 2011
OZONE (O_3)				
Maximum 1-hour concentration (ppm)		0.088	0.126	0.098
Maximum 8-hour concentration (ppm)		0.068	0.086	0.067
Number of days exceeding state 1-hour standard	0.09 ppm	0	5	1
Number of days exceeding state 8-hour standard	0.070 ppm	0	3	0
Number of days exceeding federal 8-hour standard	0.075 ppm	0	3	0
NITROGEN DIOXIDE (NO_2)				
Maximum 1-hour concentration (ppm)		0.069	0.064	0.061
Annual average concentration (ppm)		0.015	0.014	0.015
Number of days exceeding state 1-hour standard	0.18 ppm	0	0	0
CARBON MONOXIDE (CO)[2]				
Maximum 1-hour concentration (ppm)		5.7	4.3	N/A
Maximum 8-hour concentration (ppm)		2.50	2.19	2.18
Number of days exceeding state 8-hour standard	9.0 ppm	0	0	0
Number of days exceeding federal 8-hour standard	9 ppm	0	0	0
SULFUR DIOXIDE (SO_2)[3]				
Maximum 1-hour concentration in ppm		0.021	N/A	N/A
Maximum 24-hour concentration in ppm		0.001	0.002	0.003
Number of days exceeding state 1-hour standard	0.25 ppm	0	0	
Number of days exceeding state 24-hour standard	0.04 ppm	0	0	0
PARTICULATE MATTER (PM10)				
Maximum 24-hour concentration, state ($\mu g/m^3$)[4]		43.3	46.8	44.3
Maximum 24-hour concentration, federal ($\mu g/m^3$)[5]		41.1	44.2	41.3
Annual arithmetic mean concentration ($\mu g/m^3$)[4]		20.3	19.5	19.2
Number of samples exceeding state 24-hour standard	50 $\mu g/m^3$	0	0	0
Number of samples exceeding federal 24-hour standard	150 $\mu g/m^3$	0	0	0
PARTICULATE MATTER (PM2.5)				
Maximum 24-hour concentration ($\mu g/m^3$)[5]		35.0	41.5	50.5
Annual arithmetic mean concentration ($\mu g/m^3$)[6]		10.1	9.0	9.9
Number of samples exceeding federal 24-hour standard	35 $\mu g/m^3$	0	3	3

N/A = not available.
Source: California Air Resources Board, "iADAM Air Quality Data Statistics," http://www.arb.ca.gov/adam/welcome.html. 2010.
[1] Parts by volume per million of air (ppm), micrograms per cubic meter of air ($\mu g/m^3$), or annual arithmetic mean (aam).
[2] Carbon monoxide 1-hour monitoring data was obtained from the BAAQMD's Bay Area Air Pollution Summary from 2007 through 2009 (http://www.baaqmd.gov/Divisions/Communications-and-Outreach/Air-Quality-in-the-Bay-Area/Air-Quality-Summaries.aspx).
[3] Sulfur dioxide 1-hour monitoring data was obtained from the US EPA's AirData website (http://www.epa.gov/air/data/geosel.html).
[4] Using state methods for sampling.
[5] Using federal methods for sampling.

4.2.2.4 Surrounding Land Uses and Sensitive Receptors

Sensitive land uses in the vicinity of the proposed project include residential neighborhoods. The EVC campus is in a suburban/rural setting that is currently experiencing substantial commercial and residential development. Nearby uses include residential uses to the north beyond Evergreen Creek, to the west beyond Thompson Creek, and to the south beyond Yerba Buena Road and Yerba Buena Creek; Falls Creek Park to the north; Evergreen Park and a church to the south; Montgomery Hill Park and undeveloped lands to the east; and an assisted-living facility to the west.

Land uses such as schools and hospitals are considered relatively sensitive to poor air quality because children and the infirm are more susceptible to respiratory infections and other air-quality-related health problems than the general public. Residential areas are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Recreational areas are also considered sensitive locations due to vigorous exercise associated with these types of land uses (exercise causes an increased breathing rate that will lead to greater exposure to ambient air pollutants).

4.2.2.5 Localized Carbon Monoxide Concentrations

Traffic congestion along roadways and at intersections has the potential to generate localized high levels of CO. The BAAQMD monitoring stations have not recorded any exceedances of the state or federal CO standards since 1991. However, because elevated CO concentrations are generally localized, heavy traffic volumes and congestion at specific intersections or roadway segments can lead to high levels of CO, or hotspots, while concentrations at the nearest air quality monitoring station may be below state and federal standards.

4.2.3 REGULATORY CONSIDERATIONS

Air quality within the SFBAAB is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly as well as individually to improve air quality through legislation, regulations, planning, policymaking, education, and a variety of programs. With respect to the proposed project, the BAAQMD would administer most of the air quality requirements affecting the proposed project. The agencies primarily responsible for improving the air quality within the Basin are discussed below along with their individual responsibilities.

4.2.3.1 US Environmental Protection Agency

Criteria Pollutants

The US EPA is responsible for enforcing the federal Clean Air Act (CAA) and the NAAQS. The NAAQS identify levels of air quality for seven criteria pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The seven criteria pollutants are O_3, CO, NO_2, SO_2, PM10, PM2.5, and lead. The federal ambient air quality standards and the relevant health effects of the criteria pollutants are summarized above in **Table 4.2-1**.

The Basin is currently classified by the US EPA as a nonattainment area for the 8-hour standard for O_3 and a nonattainment area for PM2.5. Additionally, it has been designated as an attainment/unclassifiable area for the 1-hour and 8-hour standards for CO and the annual standard for NO_2, and as an attainment area for the quarterly lead standard and 24-hour and annual SO_2 standards. The Basin is currently designated as unclassifiable for the 24-hour PM10 standard. In response to its enforcement responsibilities, the US EPA requires each state to prepare and submit a state implementation plan (SIP) describing how the state will achieve the federal standards by specified dates, depending on the severity of the air quality within the state or air basin. The BAAQMD has been delegated the responsibility for implementing many of the CAA requirements for the region, which includes the location of the proposed project. The status of the SFBAAB with respect to attainment with the NAAQS is summarized in **Table 4.2-3, National Ambient Air Quality Standard Designations – San Francisco Bay Area Air Basin.**

Table 4.2-3
National Ambient Air Quality Standard Designations
San Francisco Bay Area Air Basin

Pollutant	Designation/Classification
Ozone (O_3)	Nonattainment/Marginal
Carbon Monoxide (CO)	Attainment/Maintenance
Nitrogen Dioxide (NO_2)	Attainment/Unclassifiable
Sulfur Dioxide (SO_2)	Attainment
Respirable Particulate Matter (PM10)	Unclassifiable
Fine Particulate Matter (PM2.5)	Nonattainment
Lead (Pb)	Attainment

Source: US Environmental Protection Agency, "Region 9: Air Programs, Air Quality Maps," http://www.epa.gov/region9/air/maps/index.html. 2010.

[1] *The US EPA has promulgated a new 1-hour NAAQS for NO_2. The new 1-hour standard is 0.100 parts per million (188 micrograms per cubic meter) and became effective on April 12, 2010. The US EPA will make nonattainment area designations for the 1-hour standard by 2012.*

Hazardous Air Pollutants

Regulation of hazardous air pollutants (HAPs) under federal regulations is achieved through federal and state controls on individual sources. Federal law defines HAPs as non-criteria air pollutants with short-term (acute) and/or long-term (chronic or carcinogenic) adverse human health effects. The

1990 federal CAA Amendments offer a comprehensive plan for achieving significant reductions in both mobile and stationary source emissions of HAPs. Under the 1990 CAA Amendments, a total of 189 chemicals or chemical families were designated HAPs because of their adverse human health effects. Title III of the 1990 federal CAA Amendments amended Section 112 of the CAA to replace the former program with an entirely new technology-based program. Under Title III, the US EPA must establish maximum achievable control technology emission standards for all new and existing "major" stationary sources through promulgation of National Emission Standards for Hazardous Air Pollutants (NESHAP). Major stationary sources of HAPs are required to obtain an operating permit from the BAAQMD pursuant to Title V of the 1990 CAA Amendments. A major source is defined as one that emits at least 10 tons per year of any HAP or at least 25 tons per year of all HAPs. The proposed project would not be considered a major source.

4.2.3.2 California Air Resources Board

The California Air Resources Board (CARB), a branch of the California Environmental Protection Agency (Cal EPA), oversees air quality planning and control throughout California. It is primarily responsible for ensuring implementation of the 1988 California Clean Air Act (CCAA), for responding to the federal CAA requirements and for regulating emissions from motor vehicles and consumer products within the state. The CCAA and other California air quality statutes designate local air districts, such as the BAAQMD, with the responsibility for regulating most stationary sources, and to a certain extent, area sources.

Like the US EPA, CARB has established ambient air quality standards for the state (i.e., CAAQS). These standards apply to the same seven criteria pollutants as the federal CAA and also address sulfates (SO_4), visibility-reducing particles, hydrogen sulfide (H_2S) and vinyl chloride (C_2H_3Cl). The CCAA standards are more stringent than the federal standards and, in the case of PM10 and SO_2, far more stringent. Based on monitored pollutant levels, the CCAA divides O_3 nonattainment areas into four categories – moderate, serious, severe, and extreme – to which progressively more stringent planning and emission control requirements apply.

The Basin is a nonattainment area for the California 1-hour and 8-hour ozone standard. The Basin is designated as nonattainment for the California 24-hour and annual PM10 standards, as well as the California annual PM2.5 standard. The Basin is designated as attainment or unclassifiable for all other CAAQS. The ozone precursors, reactive organic gases (ROG) and oxides of nitrogen (NOx), in addition to PM10, are the pollutants of concern for projects located in the Basin. The status of the Basin with respect to attainment with the CAAQS is summarized in **Table 4.2-4, California Ambient Air Quality Standard Designations – San Francisco Bay Area Air Basin**.

Table 4.2-4
California Ambient Air Quality Standard Designations – San Francisco Bay Area Air Basin

Pollutant	Designation/Classification
Ozone (O_3)	Nonattainment[1]
Carbon Monoxide (CO)	Attainment
Nitrogen Dioxide (NO_2)	Attainment
Sulfur Dioxide (SO_2)	Attainment
Respirable Particulate Matter (PM10)	Nonattainment
Fine Particulate Matter (PM2.5)	Nonattainment
Lead (Pb)	Attainment
Sulfates (SO_4)	Attainment
Hydrogen Sulfide (H_2S)	Unclassified
Vinyl Chloride	Unclassified
Visibility Reducing Particles	Unclassified

Source: California Air Resources Board, "Area Designations Maps/State and National," http://www.arb.ca.gov/desig/adm/adm.htm. 2010.
[1] *CARB has not issued area classifications based on the new state 8-hour standard. The previous classification for the 1-hour ozone standard was "Serious."*

Toxic Air Contaminants

California law defines toxic air contaminants (TACs) as air pollutants having carcinogenic or other health effects. A total of 245 substances have been designated TACs under California law; they include the federal HAPs adopted as TACs in accordance with Assembly Bill 2728. The Air Toxics Hot Spots Information and Assessment Act of 1987, Assembly Bill 2588 (AB 2588), seeks to identify and evaluate risk from air toxics sources; AB 2588 does not regulate air toxics emissions directly. Under AB 2588, sources emitting more than 10 tons per year of any criteria air pollutant must estimate and report their toxic air emissions to the local air districts. Local air districts then prioritize facilities on the basis of emissions, and high priority facilities are required to submit a health risk assessment and communicate the results to the affected public. Depending on risk levels, emitting facilities are required to implement varying levels of risk reduction measures. The BAAQMD is responsible for implementing AB 2588 in the Basin.

The BAAQMD is currently working to control TAC impacts from local hot spots and from ambient background concentrations. The control strategy involves reviewing new sources to ensure compliance with required emission controls and limits, maintaining an inventory of existing sources to identify major TAC emissions and developing measures to reduce TAC emissions. The BAAQMD publishes the results of the various control programs in an annual report, which provides information on the current TAC inventory, AB 2588 risk assessments, TAC monitoring programs, and TAC control measures and plans.

One of the TACs controlled by the BAAQMD is particulate matter from diesel-fueled engines, also known as diesel particulate matter (DPM). Compared to other TACs, DPM emissions are estimated to be responsible for about 70 percent of the total ambient air toxics risk in the Basin. On a statewide basis, the average potential cancer risk associated with these emissions is over 500 potential cancer cases per million exposed people. In addition to these general risks, diesel exhaust particulate can also present elevated localized or near-source exposures. Depending on the activity and nearness to receptors, these potential risks can range from a low number to 1,500 cancer cases per million exposed people (CARB 2010).

4.2.3.3 Bay Area Air Quality Management District

Management of air quality in the Basin is the responsibility of the BAAQMD. The BAAQMD is responsible for bringing and/or maintaining air quality in the Basin within federal and state air quality standards. Specifically, the BAAQMD has responsibility for monitoring ambient air pollutant levels throughout the Basin and developing and implementing attainment strategies to ensure that future emissions will be within federal and state standards. The following plans have been developed by the BAAQMD to achieve attainment of the federal and state ozone standards. The Clean Air Plan (CAP) and Ozone Strategy fulfill the planning requirements of the CCAA, while the Ozone Attainment Plan fulfills the federal CAA requirements.

Clean Air Plans

The CCAA requires air districts within nonattainment areas to prepare a triennial assessments and revisions to their Clean Air Plans (CAPs). The BAAQMD has prepared a series of CAPs, the most recent and rigorous of which was adopted in September 2010 (BAAQMD 2010). The 2010 CAP continues the air pollution reduction strategy established by the 1991 CAP and represents the fourth triennial update to the 1991 CAP, following previous updates of 1994, 1997, and 2000. The 2010 CAP is designed to address attainment of the state standard for ozone, particulate matter, air toxics, and greenhouse gases. CAPs are intended to focus on the near-term actions through amendments of existing regulations and promulgation of new District regulations.

The Bay Area 2010 CAP provides a comprehensive plan to improve Bay Area air quality and protect public health. The 2010 CAP defines a control strategy that the District and its partners will implement to: (1) reduce emissions and decrease ambient concentrations of harmful pollutant; (2) safeguard public health by reducing exposure to air pollutants that poses the greatest health risk, with an emphasis on protecting the communities most heavily impacted by air pollution; and (3) reduce greenhouse gas emissions to protect the climate. The 2010 CAP is designed to update the most recent ozone plan, the BAAQMD 2005 Ozone Strategy, to comply with state air quality planning requirements as codified in the California Health and Safety Code. State law required the CAP to include all feasible measures to reduce emissions of ozone precursors and to reduce transport of ozone precursors to neighboring air basins.

The SFBAAB was recently designated as non-attainment for the national 24-hour PM2.5 standard, and will be required to prepare a PM2.5 SIP pursuant to federal air quality guidelines by December 2012. The 2010 CAP is not a SIP document and does not respond to federal requirements for PM2.5 or ozone planning. However, in anticipation of future PM2.5 planning requirements, the CAP control strategy also aims to reduce PM emissions and concentrations. In addition, US EPA is currently reevaluating national ozone standards, and is likely to tighten those standards in the near future. The 2010 CAP updates the BAAQMD's most recent state ozone plan, the 2005 Ozone Strategy, by addressing new emerging challenges and opportunities. The 2010 CAP control strategy includes revised, updated, and new measures in the three traditional control measure categories: Stationary Source Measures, Mobile Source Measures, and Transportation Control Measures. In addition, the CAP identifies two new categories of control measures: Land Use and Local Impact Measures, and Energy and Climate Measures (BAAQMD 2010a). The control measures in the CAP will also help in the Basin's continuing effort to attain national ozone standards.

2001 Ozone Attainment Plan

The BAAQMD developed the 2001 Ozone Attainment Plan as a guideline to achieve the then federal 1-hour ozone standard (BAAQMD 2001). The 2001 Attainment Plan was approved by CARB in 2001 and by the US EPA in 2003. In April 2004, the US EPA determined the SFBAAB had attained the federal 1-hour ozone standard. Due to the attainment status of the Basin, the 1-hour ozone requirements set forth in the 2001 Ozone Attainment Plan were not required anymore. A year later, in 2005, the federal 1-hour ozone standard was revoked by the US EPA for a new and more health-protective 8-hour standard. The Basin was designated as marginal nonattainment for the federal 8-hour ozone standard. Although designated as nonattainment, areas designated as marginal nonattainment or less were not required to submit new attainment plans. Nonetheless, the control measures and strategies described in the 2001 Ozone Attainment Plan for the 1-hour standard will also help achieve attainment with the 8-hour standard.

BAAQMD Rules and Regulations

Specific rules and regulations have been adopted by the BAAQMD that limit emissions that can be generated by various uses and/or activities. These rules regulate not only the emissions of the state and federal criteria pollutants, but also the emissions of TACs. The rules are also subject to ongoing refinement by the BAAQMD.

In general, all stationary sources with air emissions are subject to BAAQMD's rules governing their operational emissions. Some emissions sources are further subject to regulation through the BAAQMD's permitting process. Through this permitting process, the BAAQMD also monitors the amount of stationary emissions being generated and uses this information in developing the CAP. Some of the stationary emission sources that would be constructed as part of the project (e.g., emergency generator) will be subject to the BAAQMD permitting requirements. A few of the primary BAAQMD rules applicable to the proposed project include the following:

- **Regulation 2, Rule 1 (General Requirements):** This rule requires new and modified sources of air pollution to acquire permits (e.g., Authority to Construct, Permit to Operate) in order to monitor stationary source emissions within the BAAQMD's jurisdiction. The rule also includes a list of equipment and processes that would be exempt from permitting requirements. Among others, these include cooling towers and boilers with a heat input rating less than 10 million British thermal units (BTU) per hour fired exclusively with natural gas, liquefied petroleum gas, or a combination, and laboratories located in a building where the total number of fume hoods within the building is fewer than 50 or the total laboratory space is less than 25,000 square feet, provided that responsible laboratory management practices are used.

- **Regulation 2, Rule 2 (New Source Review):** For new and modified stationary sources subject to permitting requirements (see Regulation 2, Rule 1), this series of rules prescribes the use of Best Available Control Technology and the provision of emission offsets (i.e., mitigation) for equipment whose emissions exceed specified thresholds. The applicability of these requirements would be determined upon submittal of an application for an Authority to Construct under Regulation 2, Rule 1.

- **Regulation 2, Rule 5 (New Source Review for Toxic Air Contaminants):** For new and modified stationary sources of toxic air contaminants subject to permitting requirements (see Regulation 2, Rule 1), this rule evaluates potential public exposure and health risk and provides measures for mitigating potentially significant health risks from these exposures, including the use of Maximum Available Control Technology.

- **Regulation 8, Rule 3 (Architectural Coatings):** This rule sets limits on the ROG content in architectural coatings sold, supplied, offered for sale, or manufactured within the BAAQMD's jurisdiction. The rule also includes time schedules that specify when more stringent ROG standards are to be enforced. The rule applies during the construction phase of a project. In addition, any periodic architectural coating maintenance operations are required to comply with this rule.

- **Regulation 8, Rule 15 (Emulsified and Liquid Asphalts):** This rule sets limits on the ROG content in emulsified and liquid asphalt used for maintenance and paving operations. The rule includes specific ROG content requirements for various types of asphalt (e.g., emulsified asphalt, rapid-cure liquid asphalt, slow-cure liquid asphalt). This rule applies during the construction phase of a project. In addition, any future asphalt maintenance of a project's roads would be required to comply with the ROG standards set in Rule 15.

- **Regulation 9, Rule 6 (Nitrogen Oxide Emission from Natural Gas-Fired Water Heaters):** This rule sets a limit on the NO_X emissions from natural gas-fired water heaters. The rule applies to natural gas-fired water heaters manufactured after July 1, 1992 with a heat input rating of less than 75,000 BTU/hour. Water heaters subject to the rule must not emit more than 40 nanograms of NO_X per joule of heat output.

- **Regulation 9, Rule 7 (Nitrogen Oxide and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters):** This rule limits the NO_X and CO emissions from industrial, institutional, and commercial boilers, steam generators, and process heaters. The rule applies to boilers with a heat input rating greater than 10 million BTU/hour fired exclusively with natural gas, liquefied petroleum gas, or a combination or boilers with a heat input rating greater than 1 million BTU/hour fired with other fuels.

- **Regulation 9, Rule 8 (Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines):** This rule limits the NO_X and CO emissions from stationary internal combustion engines. The rule applies to engines rated at greater than 50 brake horsepower, but it exempts emergency generators that would not run for more than 100 hours per year.

BAAQMD CEQA Guidelines

In April 1996, the BAAQMD prepared its *BAAQMD CEQA (California Environmental Quality Act) Guidelines* as a guidance document to provide lead government agencies, consultants, and project proponents with uniform procedures for assessing air quality impacts and preparing the air quality sections of environmental documents for projects subject to CEQA. On June 2, 2010, the BAAQMD adopted updated *CEQA Air Quality Guidelines*, which were again updated in May 2011. These guidelines describe the criteria that the BAAQMD uses when reviewing and commenting on the adequacy of environmental documents, such as this EIR. The updated *BAAQMD CEQA Air Quality Guidelines* (*2010 CEQA Guidelines*) recommend thresholds for use in determining whether projects would have significant adverse environmental impacts, identify methodologies for estimating project emissions and impacts, and identify measures that can be used to avoid or reduce air quality impacts.

The significance thresholds under BAAQMD's *2010 CEQA Guidelines* were challenged by the California Building Industry Association. The Alameda County Superior Court recently ruled that BAAQMD must set aside the approval of the guidelines and not approve any new guidelines until the BAAQMD complies with CEQA. The BAAQMD accordingly is not recommending the use of the significance thresholds in the guidelines to determine the significance of air quality impacts. Instead, the BAAQMD recommends that the lead agency should "determine appropriate air quality thresholds of significance based on substantial evidence in the record."[2] The Court did not rule on or question the adequacy of the evidentiary basis supporting the significance thresholds that are contained in the BAAQMD *2010 CEQA Guidelines* and the BAAQMD-recommended impact assessment methodologies. Therefore, a lead agency has the discretion to use the significance thresholds and methodology for analyzing air quality impacts under CEQA based on the evidence and technical studies supporting the guidelines.

4.2.3.4 Local Plans and Policies

There are no local plans and policies related to air quality that are applicable to the proposed project.

4.2.4 IMPACTS AND MITIGATION MEASURES

4.2.4.1 Significance Criteria

For the purposes of this EIR, air quality impacts would be considered significant if they would exceed the following Standards of Significance, which are based on Appendix G of the *2013 State CEQA Guidelines* and the BAAQMD *2010 CEQA Guidelines*. According to these guidelines, a project would normally have a significant impact on air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollution concentrations; or
- Create objectionable odors affecting a substantial number of people.

As noted above, the Alameda County Superior Court recently ruled that the BAAQMD must set aside the approval of the guidelines and not approve any new guidelines until the District complies with CEQA. The BAAQMD accordingly is not recommending the use of the 2010 significance thresholds to determine the significance of air quality impacts. The San José Evergreen Community College District (SJECCD) has however examined the technical studies and evidence supporting the BAAQMD *2010 CEQA Guidelines* and has determined that it will use the methodological approach and thresholds in the Guidelines to

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2 Bay Area Air Quality Management District, http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES.aspx, Accessed April 13 2012.

evaluate the impacts of the proposed project. The BAAQMD's evaluation criteria for determining air quality impacts provide defined screening thresholds for pollutant emissions. These screening thresholds for air quality impacts from the BAAQMD *2010 CEQA Guidelines* are presented below.

Construction Emissions

Impacts from construction emissions associated with the proposed project would be considered significant if the construction emissions exceeded the thresholds listed in **Table 4.2-5, BAAQMD Average Daily Construction Emission Thresholds**.

Table 4.2-5
BAAQMD Average Daily Construction Emission Thresholds

Criteria Air Pollutants	Average Daily Emissions (Pounds per Day)
ROG	54
NO_X	54
PM10 (Exhaust)	82
PM2.5 (Exhaust)	54

Source: Bay Area Air Quality Management District, 2010b.

Operational Emissions

Impacts from direct and/or indirect operational emissions associated with the proposed project would be considered significant if they exceeded the thresholds in **Table 4.2-6, BAAQMD Operational Emission Thresholds**.

Table 4.2-6
BAAQMD Operational Emission Thresholds

Criteria Air Pollutants	Average Daily Emissions (Pounds per Day)
ROG	54
NO_X	54
PM10	82
PM2.5	54

Source: Bay Area Air Quality Management District, 2010b.

Direct emissions are those that are emitted on a site, and include emissions from stationary sources and on-site mobile equipment if applicable. Examples of land uses and activities that generate direct emissions are industrial operations and sources subject to an operating permit by the BAAQMD. Indirect emissions come from mobile sources that access the project site, but generally are emitted off-site. For many types of land development projects, the principal source of air pollutant emissions is the motor vehicle trips generated by the project.

.Local Community Risk and Toxic Air Contaminant Emissions

Local community risk and hazard impacts are associated with TACs and PM2.5 because emissions of these pollutants can have significant health impacts at the local level. The proposed project would result in a significant impact if its emissions of TACs or PM2.5 resulted in any of the following:

- Non-compliance with a qualified risk reduction plan; or
- An incremental increase in cancer risk of more than 10 in 1 million, or an increase in non-cancer risk (i.e., chronic or acute) as measured by a hazard index greater than 1.0.

.Odors

For impacts associated with odors, the BAAQMD considers project operations that result in five confirmed complaints per year averaged over three years to have a significant impact.

Local Carbon Monoxide Concentrations

Indirect CO emissions are considered significant if they will contribute to a violation of the state standards for CO (9.0 ppm averaged over 8 hours and 20 ppm over 1 hour). The BAAQMD recommends CO modeling for a plan or a project in which: (1) project vehicle emissions of CO would exceed 550 pounds per day; (2) project traffic would affect intersections or roadway segments operating at level of service (LOS) E or F, or would cause a decline to LOS E or F;[3] or (3) project traffic would increase traffic volumes on nearby roadways by 10 percent or more (unless the increase in traffic volume is less than 100 vehicles per hour). Intersections are determined to operate at an LOS between A and F (LOS A being the best and LOS F being the worst) according to congestion or delay time, demand/capacity ratio, and relative flow of traffic at the intersection. Intersections that are determined to operate at LOS F or E have the potential to cause a CO hotspot (i.e., exceedance of the CAAQS). If necessary, a simplified CO modeling analysis, described in the BAAQMD *CEQA Air Quality Guidelines*, may be used to determine localized CO concentrations. If modeling demonstrates that the source would not cause a

3 Levels of Service (LOS) range from A (least congested) with a condition of free flow with low volumes and high speeds to F (most congested) with stop and go, low-speed conditions with little or poor maneuverability.

violation of the state standard at existing or reasonably foreseeable receptors, the motor vehicle trips generated by the project would not have a significant impact on local air quality. The traffic study prepared for the proposed project indicates that five intersections impacted by the proposed project will operate at an LOS of E or F; therefore, a CO analysis is required.

4.2.4.2 Issues Not Discussed Further

The analysis in the Initial Study prepared for the proposed project and circulated with the NOP concluded that further analysis of the following issues was not required in the EIR.

- Create objectionable odors affecting a substantial number of people.

Construction of facilities identified in the 2025 Updated FMP and the two additional projects would require the use of diesel-fueled equipment and architectural coatings, both of which have an associated odor. However, these odors would be short-term and temporary and would not be pervasive enough to affect a substantial number of people or to be objectionable. Routine operation of facilities identified in the 2025 Updated FMP would not involve activities that typically produce odors such as wastewater treatment, manufacturing, agriculture, etc. Occasional use of maintenance products on the campus could produce localized odors, but they would be temporary and limited in area. Consequently, short-term construction and long-term operation of facilities under the 2025 Updated FMP would not cause odors nor expose on-site receptors to objectionable odors, and the impact would be less than significant.

4.2.4.3 Methodology

Air quality impacts resulting from the implementation of proposed project fall into two categories: short-term impacts due to construction activities and long-term impacts from the day-to-day operations of the proposed project. Construction activities would affect air quality on a local level due to fugitive dust, PM10, and other criteria pollutant emissions associated with heavy-duty construction equipment exhaust.

Implementation of the 2025 Updated FMP would increase campus population and on-site operations. Operational criteria pollutant emissions would be generated primarily by project-related motor vehicle trips. Emissions would also be generated by on-site stationary and area sources such as emergency generators, natural gas combustion, and landscape maintenance equipment. The URBEMIS2007 Environmental Management Software and information provided in the *Software User's Guide [for] URBEMIS2007 for Windows* was used to quantify construction and operational emissions resulting from the implementation of the 2025 Updated FMP. URBEMIS2007 uses the EMFAC2007 emissions factor model to quantify mobile source emissions. The emission calculations and estimated daily emissions are presented in further detail below.

4.2.4.4 Project Impacts and Mitigation Measures

This section presents the project-specific impacts. Cumulative air quality impacts are discussed in **subsection 4.2.5, Cumulative Impacts**.

Impact AQ-1: **Construction and operation of the facilities associated with implementation of the 2025 Updated FMP would generate emissions of fugitive dust and criteria air pollutants that would not exceed the BAAQMD significance thresholds.**

Level of Significance: Less than significant

Construction associated with the implementation of the 2025 Updated FMP would occur over a period of time, from approximately 2013 to 2025. As the exact schedule of construction of each facility is not currently known, total construction (including demolition) was averaged over 12 years with the year 2019 assumed to be representative of other years. Therefore one twelfth of the total construction was modeled as occurring in 2019, including demolition, grading, construction, paving, and architectural coating. The results are representative of the maximum daily emissions due to an average 12-month period of construction including all construction phases. Site-specific or project-specific data were used in the URBEMIS2007 model where available. The default construction equipment and vehicle mixes generated by URBEMIS2007 were assumed for grading and building construction. The number of vendor trips (e.g., transport of building materials) and worker trips were also based on default values in the URBEMIS2007 model. For all proposed projects, BAAQMD recommends the implementation of all *Basic Construction Mitigation Measures* (BAAQMD 2010), whether or not construction-related emissions exceed the construction thresholds of significance. Therefore, the URBEMIS2007 model calculations included watering of construction areas as a basic feature of construction activities.

Table 4.2-7, Estimated Construction Emissions, presents the maximum daily emissions for each pollutant during each phase of project construction. Construction emissions include all emissions associated with the construction equipment, grading and trenching activities, worker trips, and on-road diesel trucks.

Table 4.2-7
Estimated Construction Emissions

	Emissions in Pounds per Day					
Construction	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10} (PM_{10} exhaust)**	**$PM_{2.5}$ ($PM_{2.5}$ exhaust)**
Average Maximum Daily Emissions	13.90	17.17	17.16	0.01	6.62 (0.90)	1.93 (0.83)
BAAQMD Thresholds	54	54	—	—	82	54
Exceeds Threshold?	NO	NO	—	—	NO	NO

Source: Impact Sciences, Inc. Detailed URBEMIS2007 emissions calculations are provided in ***Appendix 4.2****.*
Totals in the table may not appear to add exactly due to rounding in the computer model calculations.
The PM10 and PM2.5 thresholds are only for exhaust emissions and not for total PM10 and PM2.5 emissions.

As shown in the table above, the estimated maximum daily construction emissions would not exceed any BAAQMD thresholds of significance; therefore, construction of the proposed project would not have a significant impact on air quality. It should be noted that there are two very small projects, consisting of the corporation yard/parking lot covers and the installation of bleachers at the soccer field. Neither project would involve substantial ground disturbance or use of heavy equipment, and were therefore not included in this analysis.

Operational emissions from campus development under the 2025 Updated FMP were also estimated. The mobile source emissions associated with the 2025 Updated FMP were estimated using URBEMIS2007, a land use and emissions estimation model. URBEMIS2007 estimates vehicle emissions based on the amount of development and trip generation rate of the development. The trip generation rate at buildout of the 2025 Updated FMP was provided by the traffic study prepared for the 2025 Updated FMP (Fehr & Peers 2012). In addition, URBEMIS2007 incorporates trip distances and emission factors specific to counties, air basins, and air district jurisdictions. For the 2025 Updated FMP, parameters specific to Santa Clara County were used to estimate mobile and area source emissions.

The 2025 Updated FMP involves changes to the existing campus to meet the needs outlined in the 2025 Education Master Plan. These changes include demolition of some buildings, renovation of others, and construction of six new buildings. According to the 2025 Educational Master Plan for the EVC campus, total enrollment on campus is expected to reach approximately 14,840 students by 2025. Based on these projections, future program needs on the campus total approximately 355,150 square feet of space, as compared to the existing total of about 344,900 square feet. Therefore, the 2025 Education Master Plan determined that EVC does not show any significant need for additional space through the year 2025, although there are needs in certain specific space categories. URBEMIS calculates emissions from both area sources and mobile sources based on square footage of building space for the "Junior College" land use type. In this case, the building square footage on the campus will not change substantially but the number of trips would be expected to increase due to the increase in students and presumably staff. In order to correct for this, the trip rate for buildout of the 2025 Updated FMP was increased based on the percent growth rate in student population.

With respect to stationary sources, it is projected that three diesel-fueled emergency generators will be added to the existing seven generators already installed on the campus. These are stationary sources requiring a permit to operate from the BAAQMD. A standard permit condition for emergency generators within the jurisdiction of the BAAQMD is limited operating hours, typically approximately 50 hours per year, with an exception for operation during emergencies. Emissions from the generators were calculated using emission factors from the US EPA's AP-42 database of emission factors. The campus currently has two boilers fueled by natural gas and rated at 8.3 million BTUs each. It is anticipated that there would be one new boiler installed on campus. Emissions from the boilers were estimated using the same methodology as for the emergency generators, with the exception that they are assumed to operate continuously throughout the year.

Finally, to find the net increase in emissions due to the 2025 Updated FMP, the emissions from the campus at buildout under the 2025 Updated FMP were compared to the existing emissions of the campus. **Table 4.2-8, Estimated Operational Emissions**, identifies the maximum daily emissions for each pollutant from project operation.

As shown, unmitigated operational emissions associated with the day-to-day activities of the 2025 Updated FMP would not exceed any of the operational thresholds of significance. On a net basis (emissions from the 2025 Updated FMP minus emissions from the existing facilities and operations) emissions are either negative, reflecting a net reduction in emissions, or below the thresholds of significance. Projects that generate emissions below the thresholds of significance would not be considered to contribute a substantial amount of air pollutants. This further substantiates the conclusion that emissions from the implementation of the 2025 Updated FMP would not violate an existing air quality standard, contribute to an existing or projected air quality violation, or conflict with or obstruct implementation of the applicable air quality plan. In addition, as the proposed corporation yard/parking lot covers and the soccer field bleachers would be accessory to existing land uses, no operational emissions from these projects would occur. This impact would be less than significant.

Mitigation Measure: No mitigation is required.

Table 4.2-8
Estimated Operational Emissions – Proposed Project and Existing

Emissions Source	Emissions in Pounds per Day					
	ROG	NO_X	CO	SO_X	PM10	PM2.5
Summertime Emissions[1]						
Existing Campus						
Area Sources	2.38	3.35	4.35	0.00	0.02	0.02
Mobile Sources	80.40	98.59	1,082.28	1.17	213.35	40.43
Stationary Sources	1.29	9.08	18.68	0.13	1.74	1.74
Summertime Totals	84.07	111.02	1,105.31	1.30	215.11	42.19
Proposed Project						
Area Sources	2.45	3.45	4.43	0.00	0.02	0.02
Mobile Sources	98.90	122.12	1,340.59	1.45	264.27	50.08
Stationary Sources	1.93	13.54	27.99	0.20	2.60	2.60
Summertime Totals	103.28	139.11	1,373.01	1.65	266.89	52.70
Net (Proposed minus Existing)	**19.21**	**28.09**	**267.70**	**0.35**	**51.78**	**10.51**
BAAQMD Thresholds	54	54	—	—	82	54
Exceeds Threshold?	NO	NO	—	—	NO	NO
Wintertime Emissions[2]						
Existing Campus						
Area Sources	2.26	3.33	2.80	0.00	0.01	0.01
Mobile Sources	97.19	149.47	1,158.60	1.01	213.35	40.43
Stationary Sources	1.29	9.08	18.68	0.13	1.74	1.74
Wintertime Totals	100.74	161.88	1,180.08	1.14	215.10	42.18
Proposed Project						
Area Sources	2.33	3.43	2.88	0.00	0.01	0.01
Mobile Sources	120.38	185.14	1,435.13	1.25	264.27	50.08
Stationary Sources	1.93	13.54	27.99	0.20	2.60	2.60
Wintertime Totals	124.64	202.11	1,466.00	1.45	266.88	52.69
Net (Proposed minus Existing)	**23.90**	**40.23**	**285.11**	**0.31**	**51.78**	**10.51**
BAAQMD Thresholds	54	54	—	—	82	54
Exceeds Threshold?	NO	NO	—	—	NO	NO

Source: Impact Sciences, Inc.
Totals in table may not appear to add exactly due to rounding in the computer model calculations.
1 *"Summertime Emissions" are representative of the conditions that may occur during the ozone season (May 1 to October 31).*
2 *"Wintertime Emissions" are representative of the conditions that may occur during the balance of the year (November 1 to April 30).*

Impact AQ-2: Implementation of the 2025 Updated FMP would not expose on-campus and nearby sensitive receptors to substantial concentrations of toxic air contaminants.

Level of Significance: Less than significant

Sensitive receptors are located in the vicinity of the EVC campus, including residential and assisted-living land uses. These receptors could potentially face an increased human health risk due to TACs or PM2.5 emissions from buildout of the campus under the 2025 Updated FMP. Typical sources of TACs and PM2.5 include stationary sources such as diesel engines, emergency generators, gasoline filling stations, dry cleaners, and spray booths. Mobile sources, especially diesel-fueled vehicles such as trains or heavy-duty trucks, are also a source of TACs and PM2.5. The facilities included in the 2025 Updated FMP do not include any significant stationary sources of TACs or PM2.5. There would be increased vehicle traffic associated with buildout of the 2025 Updated FMP. However, the majority of these trips would be made by gasoline-fueled passenger vehicles with relatively small emissions of PM2.5 in comparison with heavy-duty trucks. At buildout, the campus would have approximately 10 emergency generators that would operate on diesel fuel. These sources would require permits to operate from the BAAQMD. The permit conditions limit the allowable operating hours for the generators to typically a few hours per month, with exceptions for use during emergency situations. Also, in order for a permit to be issued, the generators would have to pass a health screening analysis determining additional cancer and noncarcinogenic risk resulting from the sources for any sensitive receptors within 1,000 feet. Sources that do not pass this screening analysis would be required to implement mitigation in order to reduce the associated additional cancer to acceptable levels. Therefore, the proposed project would not expose nearby sensitive receptors to substantial concentrations of toxic air contaminants.

Occupants of new buildings on the campus could also be potentially exposed to sources of TACs, with accompanying increased risk of cancer or health impacts. The BAAQMD provides a screening tool for both roadways and stationary sources of TACs within the Bay Area. According to this tool, there are no major roadways or sources of TACs within 1,000 feet of the campus. Therefore, occupants of new buildings on the campus would not be exposed to substantial sources of TACs.

Based on the analysis above, it is expected that the project would not expose on-campus or nearby residents to substantial concentrations of toxic air contaminants. The impact would be considered less than significant.

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed state standards are termed CO "hotspots." The BAAQMD recommends the use of CALINE4, a dispersion model developed by Caltrans for predicting CO concentrations near roadways, as the preferred method of estimating pollutant concentrations at various locations. CALINE4 adds roadway-specific CO emissions calculated from peak traffic volumes to ambient CO air concentrations. For this analysis, CO concentrations were calculated based on a simplified CALINE4 screening procedure developed by the BAAQMD. This methodology assumes worst-case conditions (i.e., wind direction is parallel to the primary roadway, 90° to the secondary road; wind speed of less than 1 meter per second; and extreme atmospheric stability) and provides a screening of maximum, worst-case, CO concentrations.

Maximum CO concentrations were calculated for peak hour traffic volumes at the five intersections that would operate at LOS of E or F under cumulative plus project traffic conditions. The traffic volumes used to calculate maximum CO concentrations, obtained from the traffic impact analysis, represent the future growth in ambient traffic plus traffic generated by the proposed project. The results of these calculations are presented in **Table 4.2-9, Cumulative Future Plus Project Carbon Monoxide Concentrations**, for representative locations 0 and 25 feet from each roadway.

Table 4.2-9
Cumulative Future Plus Project Carbon Monoxide Concentrations

	0 Feet		25 Feet	
Intersection	**1-Hour**	**8-Hour**	**1-Hour**	**8-Hour**
101 South Bound Off-Ramp and Yerba Buena Rd	7.5	5.1	6.9	4.7
San Felipe Road and Yerba Buena Road	8.0	5.4	7.3	5.0
San Felipe Road and Aborn Road	8.0	5.4	7.4	5.0
Capitol Expressway and Aborn Road	8.2	5.5	7.6	5.1
Silver Creek Road and Capitol Expressway	7.3	5.5	7.5	5.1
Exceeds state 1-hour standard of 20 ppm?	NO	—	NO	—
Exceeds federal 1-hour standard of 35 ppm?	NO	—	NO	—
Exceeds state 8-hour standard of 9.0 ppm?	—	NO	—	NO
Exceeds federal 8-hour standard of 9 ppm?	—	NO	—	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in ***Appendix 3.2****.*

As shown, the simplified CALINE4 screening procedure shows that, under worst-case conditions, CO concentrations at the impacted intersections would not exceed the federal or state 1-hour or 8-hour CO standards under future cumulative plus the proposed project conditions. Based on this analysis, the proposed project would not cause or contribute to the formation of CO hotspots at impacted intersections and the impact would be less than significant.

Mitigation Measure: No mitigation is required.

Impact AQ-3: **Implementation of the 2025 Updated FMP would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under the federal and state ambient air quality standard.**

Level of Significance: Less than significant

The SFBAAB is currently designated as a nonattainment area for state and national ozone standards and particulate matter standards. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. No single project is sufficiently large in size to result in nonattainment of ambient air quality standards by itself. Instead, the BAAQMD *2010 CEQA Guidelines* states that a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. According to the BAAQMD, if a project exceeds the identified significance thresholds for the nonattainment pollutants, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Because as shown in the analysis above, buildout of the campus under the 2025 Updated FMP would not exceed any of BAAQMD's thresholds of significance, implementation of the 2025 Updated FMP would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under the federal and state ambient air quality standards. The impact would be less than significant.

Mitigation Measure: No mitigation is required.

4.2.4.5 Cumulative Impacts and Mitigation Measures

CEQA defines cumulative impacts as two or more individual effects which, when considered together, are either significant or "cumulatively considerable," meaning they add considerably to a significant environmental impact. Cumulative impacts can result from individually minor but collectively significant projects (*2013 State CEQA Guidelines* Section 15355). An adequate cumulative impact analysis considers a project over time and in conjunction with other past, present, and reasonably foreseeable future projects whose impacts might compound those of the project being assessed.

According to the *BAAQMD's CEQA Guidelines*, project emissions that do not exceed the BAAQMD emission thresholds would not have a significant cumulative impact. The mass-based significance thresholds published by the BAAQMD include impacts from projected growth in the SFBAAB, so that cumulative impacts are addressed by the significance thresholds. As shown in **Tables 4.2-7 and 4.2-8**, campus operations at buildout of the 2025 Updated FMP would not exceed emission thresholds. Also as noted above, cumulative health impacts from implementation of the 2025 Updated FMP would not exceed significance thresholds for cancer risk or noncarcinogenic health risk.

There are two known projects (PDC04-098 and PDC05-053) that may potentially be under construction while construction of FMP projects is underway on the EVC campus. However, these projects are relatively distant from the campus. Furthermore, these projects will be subject to the same review and regulations relevant to all construction in the Bay Area, and therefore will have dust control and other pollution reduction measures in place. Consequently, they are unlikely to result in emissions that would cumulate with the construction emissions generated on the campus, and cumulative impacts from construction would be less than significant. Based on this analysis, the proposed project would result in less than significant cumulative air quality impacts.

4.2.5 REFERENCES

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4.3 BIOLOGICAL RESOURCES

4.3.1 INTRODUCTION

This section identifies existing biological resources on the Evergreen Valley College (EVC) campus and analyzes the potential for implementation of the 2025 Updated Facilities Master Plan (FMP) to adversely affect those resources. Information presented in the discussion and analysis that follows is based on the Biological Habitat Evaluation prepared by Pacific Biology in September 2012. This section identifies potential impacts of implementation of the 2025 Updated FMP on sensitive biological resources and proposes mitigation measures to reduce identified impacts to less than significant levels.

Public and agency comments related to biological resources received in response to the Notice of Preparation (NOP) issued for this EIR are summarized below.

- The trees proposed for removal during implementation under the 2025 Updated FMP could potentially provide nesting habitat for raptors. The Draft EIR should identify reduction measures for this potential impact to a less than significant level.
- The campus is located in the Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) area. The Draft EIR should discuss any potential impacts associated with additional trip generation and include the appropriate associated mitigation measure should the HCP/NCCP be adopted by the City Council (potentially in December 2012).

These comments were considered in the analysis presented below.

4.3.2 ENVIRONMENTAL SETTING

4.3.2.1 Regional Location

The project site is located in east-central San José in Santa Clara County, which is characterized by a Mediterranean climate with moderately warm, dry summers and mild, wet winters. The area around the campus is primarily urban and developed, except to the east. Montgomery Hill Park to the east of the campus is an undeveloped open space that extends to the base of the Diablo Range.

4.3.2.2 Surrounding Land Uses

The campus is in a suburban setting that has experienced substantial commercial and residential development in the past several years. Nearby uses include residential development to the north beyond Evergreen Creek, to the west beyond Thompson Creek, and to the south beyond Yerba Buena Road and Yerba Buena Creek. Other nearby land uses include an assisted-living facility to the west, a church to the south, and recreational open spaces, including Falls Creek Park to the north, and Evergreen Park, Montgomery Hill Park, and undeveloped lands to the east.

4.3.2.3 Project Site

The EVC campus is an approximately 158-acre site located at 3095 Yerba Buena Road. The campus is near the eastern City boundary and is bounded by San Felipe Road to the west, Yerba Buena Road to the south, Montgomery Hill Park to the east, and Falls Creek Drive to the north. The northern portion of campus consists of an undeveloped hillside area while the southern portion of the campus is generally flat and developed with campus facilities.

4.3.2.4 Plant Communities and Wildlife Habitat

Plant communities are assemblages of plant species that occur together in the same area and are defined by species composition and relative abundance.

Central Campus Area

The central campus area is currently developed and landscaped. This portion of the campus includes paved parking lots, paved walkways, lawns, and other landscaping, and existing buildings. Native and non-native trees occur throughout the developed campus and paved parking areas, including species such as black oak (*Quercus kelloggii*), valley oak (*Quercus lobata*), blue oak (*Quercus douglassi*), coast live oak (*Quercus agrifolia*), Peruvian pepper tree (*Schinus* sp.), coast redwood (*Sequoia sempervirens*), and Monterey pine (*Pinus radiata*). While native tree species are present, the trees on the developed portion of the campus were planted as landscaping. Lawns and other landscaping species are also present, including ivy (*Hedera* sp.), juniper (*Juniperus* sp.), jasmine (*Jasminum* sp.), and other non-native plant species. The developed portion of the campus also includes athletic fields and Evergreen Lake (an artificial water feature with fountains).

Undeveloped Areas

The campus contains two relatively large undeveloped areas, including the hillside on the northeastern edge of the campus (Montgomery Hill) and the grassland area in the western portion of the campus, referred to as the “Future Development” area in the 2025 Updated FMP. The 2025 Updated FMP does not include any development activities within or bordering the “Future Development” area, and therefore this area is not further evaluated in this report. However, the 2025 Updated FMP does include infrastructure improvements, including improvements to the campus loop road that could affect the outer southern edge of Montgomery Hill.

The vegetation present on Montgomery Hill is characteristic of disturbed areas and is dominated by a dense growth of annual non-native grasses and ruderal (i.e., weedy) plant species. The dominant plant species present include wild oat (*Avena fatua*), foxtail barley (*Hordeum murinum*), ripgut brome (*Bromus diandrus*), wild radish (*Raphanus raphanistrum*), Italian thistle (*Carduus pycnocephalus*), common vetch (*Vicia sativa*), and fennel (*Foeniculum vulgare*). Coyote brush (*Baccharis pilularis*), a native shrub that often colonizes disturbed areas, also occurs at scattered locations. There are also small trees and large shrubs on Montgomery Hill, including almond trees (*Prunis dulcis*), elderberry (*Sambucus mexicanus*), and poison oak (*Toxicodendron diversilobum*). At the time of the July 2011 site visit, the vegetation was tall (approximately 4-5 feet) and there were dense patches of Italian thistle. At the time of September 2012 site visit, portions of the hillside had been mowed, and California ground squirrels and their associated burrows were observed in areas with shorter vegetation. A photovoltaic system was recently installed on the western portion of the hillside; this area is fenced, has been largely cleared of vegetation, and is traversed by a gravel access road.

4.3.2.5 Special-Status Species

Special-Status Wildlife Species

For purposes of this analysis, special-status wildlife species are defined as those that are state or federally listed as Threatened or Endangered, proposed for listing as Threatened or Endangered, designated as state or federal candidates for listing, a federal Bird of Conservation Concern, a state Species of Special Concern, a state Fully Protected Animal, or a species that may otherwise be considered "Rare" under Section 15380 of the *2013 California Environmental Quality Act (CEQA) Guidelines*.

Based on a review of the California Natural Diversity Data Base (CNDDB), the following special-status species have been documented in the project area (i.e., within 3 miles of the campus): California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana draytonii*), Bay checkerspot butterfly (*Euphydryas editha bayensis*), burrowing owl (*Athene cunicularia*), white-tailed kite (*Elanus leucurus*), Cooper's hawk (*Accipiter cooperii*), western pond turtle (*Clemmys marmorata*), long-eared myotis (*Myotis evotis*), pallid bat (*Antrozous pallidus*), Opler's longhorn moth (*Adela oplerella*), and Hom's micro-blind harvestman (*Microcina homi*). The documented location of special-status species relative to the campus is shown in **Figure 4.3-1, Local CNDDB Map**. Five of these species (i.e., burrowing owl, white-tailed kite, Cooper's hawk, long-eared myotis, pallid bat) have potential to occur on the campus based on the presence of suitable habitat; the potential of these species to occur on the campus is further discussed below.

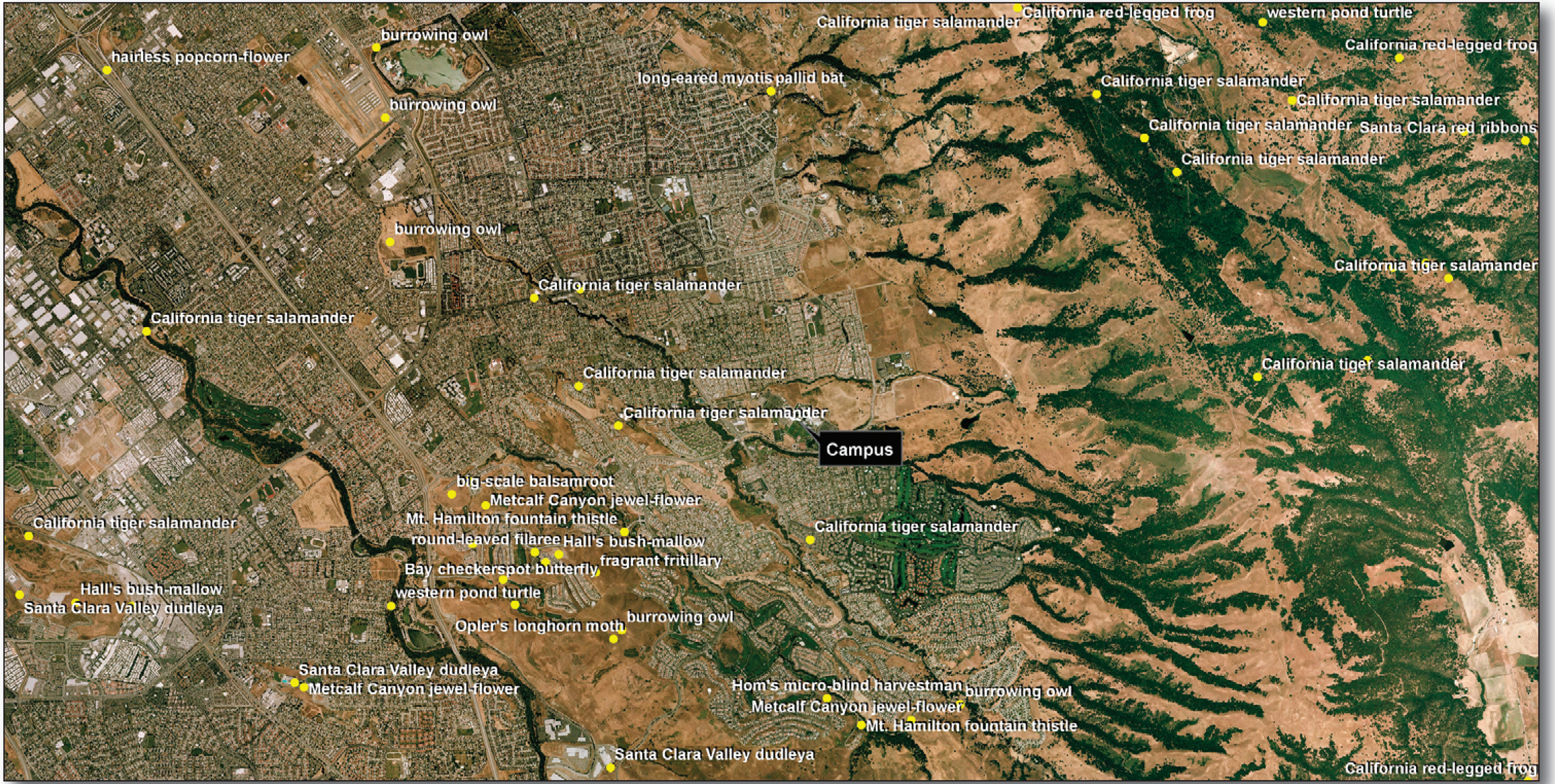
For several reasons, discussed in the Biological Habitat Evaluation prepared for the 2025 Facilities Master Plan (Pacific Biology 2012, see **Appendix 4.3**), including the lack of suitable habitat, California tiger salamander, California red-legged frog, Bay checkerspot butterfly, western pond turtle, Opler's longhorn moth, and Hom's micro-blind harvestman are not expected to occur in areas affected by the 2025 Updated FMP. Therefore, these species are not further discussed in this section.

Burrowing owl

Burrowing owl is a federal Bird of Conservation Concern and a state Species of Special Concern. This small ground-dwelling owl lives in open, dry grasslands, agricultural and rangelands, and desert habitats associated with burrowing mammals. Burrowing owls nest and shelter in ground squirrel and other suitable small mammal burrows or artificial structures. As shown in **Figure 4.3-1**, the species is known from the project vicinity. Suitable habitat for the species is not present in the developed central campus area. However, potentially suitable burrowing habitat is present on Montgomery Hill (Pacific Biology 2012). In general, vegetation is tall and dense on Montgomery Hill, which excludes burrowing mammals such as California ground squirrel; these factors greatly limit the suitability of the habitat for burrowing owls. However, following mowing or other vegetation removal, suitable burrowing owl habitat is present.

White-tailed kite

White-tailed kite is a California Fully Protected Species. This raptor typically nests in trees, often in isolated stands, surrounded by open foraging habitat. Nests are built on top of oaks, willows, or other dense broad-leafed deciduous trees within partially cleared or cultivated fields, grasslands, marsh, riparian, woodland, and savanna habitats. An individual white-tailed kite was observed foraging over the project site during the site visit. Trees on the campus, especially those bordering Montgomery Hill and other undeveloped areas, could be used for nesting by white-tailed kite (Pacific Biology 2012).



Legend:

Documented Special-Status Species (CNDDB)

3,500 1,750 0 3,500

APPROXIMATE SCALE IN FEET

SOURCE: Pacific Biology, September 2012

FIGURE **4.3-1**

Local CNDDB Map

0461.004•01/13

Cooper's Hawk

Cooper's hawk is included on the Special Animals List maintained by the California Department of Fish and Wildlife[1] (CDFW) and on this basis could be considered to be of special status under CEQA. This species was previously a California Species of Special Concern, but its sensitivity status has been downgraded to being a "Watch List" species. The species ranges over most of North America and may be seen throughout California, most commonly as a winter migrant. Nesting pairs have declined throughout the more populated lower-elevation parts of the state. Cooper's hawk forages in open woodlands and wooded margins and nests in tall trees, often in riparian areas (Ehrlich et al. 1988; Baicich 1997). Breeding pairs generally select nest sites within dense stands of live oak woodland, riparian habitats, or other wooded areas. Stands of trees throughout the campus provide potential nesting habitat for this species (Pacific Biology 2012).

Pallid Bat and Long-Eared Myotis

Pallid bat is a California Species of Special Concern and long-eared myotis is included on the most recent Special Animals List (CDFG 2011). Both of these species may roost in trees and buildings. A site-specific evaluation of the potential use by bats of the buildings proposed for demolition has not been conducted, and it is not known if these structures contain attics or other openings suitable for bats. Conservatively, it is assumed that there is potential that bats could use one or more of these buildings as a roost, given the presence of nearby open space and aquatic features (e.g., Evergreen Lake, Yerba Buena Creek, Evergreen Creek, and Thompson Creek) that provide potential foraging habitat. It is considered unlikely that any trees within the 2025 Updated FMP implementation area are used as a roost, given that these trees are relatively small and isolated.

Special-Status Plant Species

For the purposes of this analysis, special-status plants include those species that are state or federally listed as Rare, Threatened or Endangered; federal candidates for listing; proposed for state or federal listing; or included on Lists 1, 2, 3, or 4 of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS Inventory).

The majority of the 2025 Updated FMP projects would occur within the developed portion of the campus. This area is paved and landscaped, and consequently does not provide suitable habitat for any special-status plant species. The 2025 Updated FMP could include disturbance to undeveloped areas along the

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1 As of January 1, 2013, California Department of Fish and Game has been renamed California Department of Fish and Wildlife.

outer southern edge of Montgomery Hill during improvements to the campus loop road. As previously discussed, these areas are in a disturbed condition and support a dense growth of weedy plant species. Due to the disturbed and weedy condition of these areas, along with the absence of habitat types associated with locally occurring special-status plant species (e.g., serpentine, vernal pools, native grasslands), no special-status plant species are expected to occur.

Sensitive Plant Communities

Sensitive plant communities are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. These communities may or may not contain special-status species or their habitat. The most current version of the *Vegetation Alliances and Associations, Vegetation Classification and Mapping Program* (CDFG 2011), indicates the level of rarity and imperilment of vegetation types. For alliances with state ranks of S1-S3, all associations within them are also considered to be highly imperiled, and therefore, are considered to be sensitive plant communities. As previously discussed, the project site contains developed/landscaped areas and weedy, non-native grasslands. Neither of these plant communities/land uses is considered to be a sensitive plant community. Therefore, sensitive plant communities would not be affected by the implementation of the 2025 Updated FMP.

Wildlife Movement Corridors

Wildlife corridors are described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or manmade obstacles such as urbanization. Fragmentation of natural habitat creates isolated "islands" of habitat that may not provide sufficient area or resources to accommodate sustainable populations for a number of species, adversely affecting both genetic and species diversity. Wildlife corridors partially or largely mitigate the adverse effects of fragmentation by (1) allowing animals to move between remaining habitats to replenish depleted populations and increase the gene pool available, (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire or disease) will result in population or species extinction, and (3) serving as travel paths for individual animals moving throughout their home range in search of food, water, mates, and other needs, or for dispersing juveniles in search of new home ranges. As dense development occurs to the north, south and west of the campus (including Montgomery Hill), the campus does not provide habitat connectivity between open space areas and is not considered to be part of an established wildlife movement corridor.

Waters of the United States and Waters of the State

Wetlands, creeks, streams, and permanent and intermittent drainages are subject to the jurisdiction of the US Army Corps of Engineers (USACE) under Section 404 of the Federal Clean Water Act. The CDFW also generally has jurisdiction over these resources, together with other aquatic features that provide an existing fish and wildlife resource pursuant to Sections 1602-1603 of the California Fish and Game Code. The CDFW asserts jurisdiction to the outer edge of vegetation associated with a riparian corridor.

A reconnaissance-level survey of the 2025 Updated FMP implementation area was conducted to determine if any potentially jurisdictional wetlands or waters are present (Pacific Biology 2012). There are no wetlands, riparian, or other aquatic habitats within the 2025 Updated FMP disturbance area. The only aquatic feature on the campus is Evergreen Lake, which is an isolated and artificial water feature. There are additional nearby aquatic features including Thompson Creek, Evergreen Creek, and Yerba Buena Creek (located near the western, northern, and southern campus boundaries, respectively). These areas would not be affected by the implementation of the 2025 Updated FMP.

4.3.3 REGULATORY CONSIDERATIONS

4.3.3.1 Federal and State Laws and Regulations

Federal Endangered Species Act

Under the federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as Threatened or Endangered (16 United States Code [USC] 1533[c]). Pursuant to the requirements of the FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed or proposed species may be present in the project region, and whether the proposed project would result in a "take"[2] of such species. The "take" provision of the FESA applies to actions that would result in injury, death, or harassment of a single member of a species protected under the Act. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under the FESA, or result in the destruction or adverse modification of critical habitat for such species (16 USC

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2 "Take," as applied in Section 9 of the FESA, means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect or to attempt to engage in any such conduct." "Harass" is further defined by the USFWS (50 CFR. Section 17.3) as an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, and sheltering. "Harm" is defined as "an act which actually kills or injures wildlife." This may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

1536[3][4]). If it is determined that a project may result in the "take" of a federally listed species, a permit from the US Fish and Wildlife Service (USFWS) would be required under Section 7 or Section 10 of the FESA. Section 7 applies if there is a federal nexus (e.g., the project is on federal land, the lead agency is a federal entity, a permit is required from a federal agency, or federal funds are being used). Section 10 applies if there is no federal nexus.

Substantial, adverse project-related impacts to FESA-listed species or their habitats would be considered significant in this EIR. Proposed species are granted limited protection under the FESA and must be addressed in Biological Assessments (under Section 7 of the Act); proposed species otherwise have no protection from "take" under federal law, unless they are emergency-listed species. Candidate species are afforded no protection under the Act. However, the USFWS recommends that candidate species and species proposed for listing also be considered in informal consultation during a project's environmental review.

Clean Water Act

The federal Water Pollution Control Act of 1972, often referred to as the Clean Water Act, is the nation's primary law for regulating discharges of pollutants into waters of the United States. The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The regulations adopted pursuant to the Act deal extensively with the permitting of actions in waters of the United States, including wetlands. The Act's statutory sections and implementing regulations provide more specific protection for riparian and wetland habitats than any other federal law. The US Environmental Protection Agency (US EPA) has primary authority under the Clean Water Act to set standards for water quality and for effluents, but USACE has primary responsibility for permitting the discharge of dredge or fill materials into streams, rivers, and wetlands.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (16 USC, Section 703, Supplement I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. The Act encompasses whole birds, parts of birds, and bird nests and eggs.[3]

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3 The act covers hundreds of birds, including varieties of loon, grebe, albatross, booby, pelican, cormorant, heron, stork, swan, goose, duck, vulture, eagle, hawk, falcon, fail, plover, avocet, sandpiper, phalarope, gull, tern, murre, puffin, dove, cuckoo, roadrunner, owl, swift, hummingbird, kingfisher, woodpecker, swallow, jay, magpie, crow, wren, thrush, mockingbird, vireo, warbler, cardinal, sparrow, blackbird, finch, and many others.

California Endangered Species Act

Under the California Endangered Species Act (CESA), the CDFW has the responsibility for maintaining a list of Threatened and Endangered species (California Fish and Game Code Section 2070). The CDFW also maintains a list of "candidate species," which are species formally under review for addition to either the list of Endangered species or the list of Threatened species. In addition, the CDFW maintains lists of "species of special concern," which serve as watch lists. Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed Endangered or Threatened species could be present on the project site and determine whether the proposed project could have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may affect a candidate species. Project-related impacts to species on the CESA Endangered or Threatened lists would be considered significant in this EIR. Impacts to "species of concern" would be considered significant if the species met the criteria set forth under the *State CEQA Guidelines* Section 15380, or if the species were also protected under any of the other statutes or policies discussed in this section.

California Native Plant Protection Act

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (NPPA), which directed the CDFW to carry out the legislature's intent to "preserve, protect, and enhance Endangered plants in this state." The NPPA gave the California Fish and Game Commission the power to designate native plants as Endangered or Rare and to require permits for collecting, transporting, or selling such plants. The CESA expanded upon the original NPPA and enhanced legal protection for plants. The CESA established Threatened and Endangered species categories and grandfathered all Rare animals—but not Rare plants—into the act as Threatened species. Thus, there are three listing categories for plants in California: Rare, Threatened, and Endangered.

California Fish and Game Code

The California Fish and Game Code provides a variety of protections for species that are not federally or state-listed as Threatened, Endangered, or of special concern.

- Section 3503 protects all breeding native bird species in California by prohibiting the take,[4] possession, or needless destruction of nests and eggs of any bird, with the exception of non-native English sparrows and European starlings (Section 3801).

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4 "Take" in this context is defined in Section 86 of the California Fish and Game Code as to "hunt, pursue, catch, capture, or kill, or to attempt to hunt, pursue, catch, capture, or kill."

- Section 3503.5 protects all birds of prey (in the orders Falconiformes and Strigiformes) by prohibiting the take, possession, or killing of raptors and owls, their nests, and their eggs.
- Section 3513 of the code prohibits the take or possession of migratory nongame birds as designated in the Migratory Bird Treaty Act or any parts of such birds except in accordance with regulations prescribed by the Secretary of the Interior.
- Section 3800 of the code prohibits the taking of nongame birds, which are defined as birds occurring naturally in California that are not game birds or fully protected species.
- Section 3511 (birds), Section 5050 (reptiles and amphibians), and Section 4700 (mammals) designate certain wildlife species as fully protected in California.

4.3.3.2 Local Plans and Policies

The proposed project would be located on land owned and operated by the San José/Evergreen Community College District (SJECCD). As a state entity, SJECCD is exempted by the state constitution from compliance with local land use regulations, including general plans and zoning. However, SJECCD seeks to cooperate with local jurisdictions to reduce any physical consequences of potential land use conflicts to the extent feasible. Policies from the Envision San José 2040 General Plan (2011) and the City Municipal Code that relate to biological resources are provided below.

Envision San José 2040 General Plan

Measurable Environmental Sustainability

Policy MS-21.4 Encourage the maintenance of mature trees, especially natives, on public and private property as an integral part of the community forest. Prior to allowing the removal of any mature tree, pursue all reasonable measures to preserve it.

Community Design

Policy CD-1.24 Within new development projects, include preservation of ordinance-sized and other significant trees, particularly natives. Avoid any adverse effect on the health and longevity of such trees through design measures, construction, and best maintenance practices. When tree preservation is not feasible, include replacements or alternative mitigation measures in the project to maintain and enhance our Community Forest.

San José Tree Ordinance

The San José Tree Removal Ordinance (Chapter 13.32 of the City Municipal Code) requires that a Tree Removal Permit be obtained for the removal of any tree on private property with a trunk circumference (measured 2 feet above grade) of 56 inches or greater (which translates into about 18 inches in diameter). Although this ordinance does not specifically apply to the College, it is mentioned here because it is referenced in General Plan policies regarding trees as a resource.

Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan

The Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) is a regional partnership between six local partners (the County of Santa Clara, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, and the Cities of San Jose, Gilroy, and Morgan Hill) and two Wildlife Agencies (the California Department of Fish and Wildlife and the US Fish and Wildlife Service). The HCP/NCCP provides a framework for promoting the protection and recovery of natural resources, including Endangered species, while streamlining the permitting process for planned development, infrastructure, and maintenance activities. The HCP/NCCP will allow the signatories to receive Endangered-species permits for activities and projects they conduct and those under their jurisdiction.

4.3.4 IMPACTS AND MITIGATION MEASURES

4.3.4.1 Standards of Significance

In accordance with Appendix G of the *2013 State CEQA Guidelines*, the impact of the proposed project on biological resources would be considered significant if it would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by 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 wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- 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
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

4.3.4.2 Methodology

The analysis below compares identified impacts to the standards of significance stated above and determines the impact's level of significance under CEQA. If the impact is determined to be significant, the analysis identifies feasible mitigation measures to eliminate the impact or reduce it to a less than significant level. If the impact cannot be reduced to a less than significant level after implementation of all feasible mitigation measures, then the impact is identified as significant and unavoidable. The project's potential contribution to cumulative impacts is also identified.

4.1.4.3 Issues Not Discussed Further

The analysis in the Initial Study prepared for the proposed project and circulated with the NOP concluded that further analysis of the following issues was not required in the EIR.

- The implementation of the 2025 Facilities Master Plan would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Construction of facilities identified in the 2025 Updated FMP may require the removal of some trees, regardless of health, to facilitate development or to mitigate potentially hazardous circumstances related to their proximity to existing facilities. The City of San José has a tree ordinance that requires a permit for removal of any trees on private property that have a trunk circumference of 56 inches or more, measured 2 feet above grade. As a state entity, the SJECCD is exempted by the state constitution from compliance with local land use regulations and ordinances. However, the campus does intend to replace trees removed during implementation of the 2025 Updated FMP, possibly at a ratio of two new trees for every one tree removed. There would be no impact with respect to this criterion.

- The implementation of the 2025 Facilities Master Plan would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

No adopted habitat conservation plan or natural community conservation plan applies to the campus. There would be no impact with respect to this criterion. A habitat conservation plan/natural community conservation plan (HCP/NCCP) is currently being prepared for the Santa Clara Valley and the campus is located within the boundaries of the plan. The plan is expected to be finalized and effective by summer 2013. While the SJECCD is not a signatory to the NCP/NCCP, the SJECCD reviewed the 2025 Updated

FMP for consistency with the HCP/NCCP. Of the species covered by the HCP/NCCP, only the Western burrowing owl has the potential to be located on the campus. As discussed below in **Impact BIO-1**, the Campus would implement a measure to reduce impacts to the Western burrowing owl as a result of implementing the 2025 Updated FMP to a less than significant level.

In addition, the increase in vehicle trips to and from the campus as a result of the implementation of the 2025 Updated FMP could lead to an increase in air pollution. Increased nitrogen deposits that result from vehicle emissions have the potential to increase invasive species and reduce the larval food plants that support the Bay checkerspot butterfly, which is a species that is covered by the HCP/NCCP. The potential occurrence of Bay checkerspot butterfly on and near the campus is addressed in **Appendix 4.3** of the Draft EIR (see Biological Habitat Evaluation). Typical habitat of this federally Threatened butterfly exists on shallow, serpentine-derived, or similar soils, which support the butterfly's larval food plants, as well as nectar sources for adults. Suitable habitat for the species is not present on the campus due to the absence of serpentinite or similar soils and associated vegetation conditions. As shown in **Figure 4.3-1**, bay checkerspot butterfly has been documented at a location approximately 1.8 miles to the southwest of the campus. However, according to the CNDDB, this occurrence (CNDDB Occurrence #13) was extirpated in 1977. Although this location no longer supports the species, the proposed project would not have an adverse effect on air quality in this area (and associated habitat) because the proposed project will add less than 10 vehicle trips in the AM peak hour to the segment of US 101 that is closest to this location and the contribution of the project to increased pollution in this location would not be substantial. None of the other roadways that would be used by project traffic to access the campus site pass through areas that contain current or past documented occurrences of the species. Therefore, increased vehicle trips associated with the proposed project would not adversely affect the Bay checkerspot butterfly habitat.

For these reasons, implementation of the 2025 Updated FMP would not conflict with the proposed NCP/NCCP.

4.3.4.4 Project Impacts and Mitigation Measures

Impact BIO-1: **The implementation of the 2025 Updated FMP could have a substantial adverse effect on special-status wildlife species.**

Level of Significance: Potentially significant

As previously discussed, five special-status wildlife species were identified that may occur on the project site, including burrowing owl, white-tailed kite, Cooper's hawk, long-eared myotis, and pallid bat. Potential project-related impacts to these species are discussed below. For the reasons previously discussed, special-status plant species are not expected to occur on portions of the campus that would be affected by the 2025 Updated FMP.

Burrowing owl

Suitable habitat for the species is not present in the developed central campus area. However, potentially suitable burrowing habitat is present on Montgomery Hill and the species could occur on or near areas of Montgomery Hill to be disturbed by implementation of the 2025 Updated FMP including the new loop road. In general, vegetation is tall and dense on Montgomery Hill, which excludes burrowing mammals such as California ground squirrel; these factors greatly limit the suitability of the habitat for burrowing owls. However, following mowing or other vegetation removal, suitable burrowing owl habitat is present. Therefore, depending on habitat conditions at the time 2025 Updated FMP projects affecting Montgomery Hill would be implemented, nesting or wintering burrowing owls could be disturbed. The loss of burrowing owls is considered a potentially significant impact. Mitigation measures are presented below that would reduce the impacts to this special-status wildlife species to a less than significant level.

Mitigation Measures:

MM BIO-1a: Prior to the implementation of any 2025 Updated FMP projects that would disturb undeveloped portions of Montgomery Hill, a burrowing owl habitat evaluation shall be conducted of the disturbance footprint and a surrounding 500-foot area. If it is determined that habitat conditions are not suitable for burrowing owl at the time of the habitat evaluation (taking into consideration factors such as height and density of vegetation and absence of suitable small mammal burrows), then no further actions would be required. If it is determined that suitable burrowing owl habitat is present, then the following action shall be implemented:

- Focused burrowing owl surveys shall be conducted according to the accepted CDFW protocol (see Staff Report on Burrowing Mitigation, CDFG 2012). If nesting burrowing owls are observed on or within 500 feet of the disturbance area, then the nest sites shall not be disturbed during the nesting season (February 1 through August 31) or until all young have fledged as determined by a qualified biologist. If non-nesting burrowing owls are observed in the disturbance area, then the owls shall be excluded through the use of the methods described in the Staff Report on Burrowing Owl Mitigation (CDFG 2012).

White-tailed kite

Trees on the campus, especially those bordering Montgomery Hill and other undeveloped areas, could be used for nesting by white-tailed kite. Therefore, the removal of trees during the nesting season (i.e., February through August) could result in the loss of an active white-tailed kite nest. Additionally, depending on the location of any potential active nests, and the magnitude and extent of construction-related noise, construction-related noise could result in the abandonment of an active nest. The loss of an active white-tailed kite nest is considered a potentially significant impact. Mitigation measures are presented below that would reduce the impacts to this special-status wildlife species to a less than significant level.

Cooper's hawk

Stands of trees throughout the campus provide potential nesting habitat for this species. Should an active nest be present within the construction area of the projects listed in the 2025 Updated FMP, the removal of trees could result in the direct loss of an active nest of this bird species. Additionally, loud noise associated with construction activity has the potential to disturb nesting occurring close to the construction zone and result in the abandonment of an active nest. The loss of an active Cooper's hawk nest is considered a potentially significant impact. Mitigation measures are presented below that would reduce the impacts to this special-status wildlife species to a less than significant level.

Mitigation Measures:

MM BIO-1b: If construction of 2025 Updated FMP projects would commence anytime during the nesting/breeding season of native bird species (including white-tailed kite and Cooper's hawk) potentially nesting near the project sites (typically February through August in the project region), a pre-construction survey of the project vicinity for nesting birds shall be conducted. The survey shall be conducted by a qualified biologist (i.e., experienced with the nesting behavior of bird species of the region) within two weeks prior to the commencement of construction activities. The intent of the survey would be to determine if active nests of special-status bird species or other species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present within the construction zone or within 500 feet of the construction zone. The survey area would include all trees, shrubs, and grasslands in the construction zone and a surrounding 500-foot area.

If active nests are found in areas that could be directly affected or within 500 feet of construction and would be subject to prolonged construction-related noise, a no-disturbance buffer zone should be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zones and types of construction activities restricted within them will be determined by the qualified biologist taking into account factors such as the following:

- Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity
- Distance and amount of vegetation or other screening between the construction site and the nest
- Sensitivity of individual nesting species and behaviors of the nesting birds

Limits of construction to avoid an active nest shall be established in the field with flagging, fencing, or another appropriate barrier, and construction personnel shall be instructed on the sensitivity of nest areas.

Special-Status Bats

Pallid bat and long-eared myotis are known from the project area. These and other locally occurring bat species can roost in buildings and trees. A site-specific evaluation of the potential use by bats of the buildings proposed for demolition has not been conducted, and it is not known if these structures contain attics or other openings suitable for bats. Conservatively, it is assumed that there is a potential that bats could use one or more of these buildings as a roost given the presence of nearby open space and aquatic features (e.g., Evergreen Lake, Yerba Buena Creek, Evergreen Creek, Thompson Creek) that provide potential foraging habitat. Therefore, the demolition of buildings under the 2025 Updated FMP could result in the destruction of special-status bat roosts and any unusually loud noise levels generated by project construction activities could result in the abandonment of an active maternity bat roost. The loss of an active bat roost is considered a potentially significant impact. Mitigation measures are presented below that would reduce the impacts to roosting bats to a less than significant level.

Mitigation Measures:

MM BIO-1c: A qualified biologist shall conduct a roosting bat habitat evaluation prior to the demolition of any buildings. The evaluation shall determine if any buildings proposed for demolition provide potential bat roosting habitat. If it is determined that the building to be removed does not provide potential roosting habitat, no further action would be required. If suitable roost structures are identified, then surveys shall be conducted to determine if roosting bats are present. If it is determined that roosting bats are present, then a site-specific bat protection plan shall be developed by the qualified biologist to prevent disturbance of an active maternity or hibernation roost; the plan may include the use of passive bat exclusion devices, adjusting project timing to when the roost is not active, or other protective measures. It should be noted that the there are two acceptable seasonal time windows for humane exclusion:

- Between about March 1, when bats become active again after heavy winter rains and when evening temperatures are above 45 °F, and April 15, when females start giving birth to pups.
- Between August 31 and about October 15, or before heavy winter rains and when evening temperatures are above 45 °F. After that time, torpid bats are unable to fly out through the one-way exits.

  Additionally, conducting bat surveys during the hibernation period (generally October 16- February 28) may not provide conclusive results as bats are inactive and may be difficult or impossible to detect. Therefore, the timing of these seasonal time windows must be taken into consideration in planning and conducting the bat habitat evaluation/surveys.

Significance after Mitigation: Less than significant

Impact BIO-2: **The implementation of the 2025 Updated FMP would not have a substantial adverse effect on a riparian habitat or other sensitive natural community.**

Level of Significance: Less than significant

As previously discussed, there are no sensitive natural communities on the campus. Additionally, while the Evergreen Creek riparian corridor is located adjacent to the northern border of the campus, there are no riparian communities within or close to the locations of building sites and other infrastructure improvements proposed under the 2025 Updated FMP. Therefore, the effect is considered less than significant.

Mitigation Measures: No mitigation is required.

Impact BIO-3: **The implementation of the 2025 Updated FMP would not have a substantial adverse effect on a federally protected wetland.**

Level of Significance: Less than significant

As previously discussed, no creeks, wetlands, or other resources potentially under the jurisdiction of the USACE are present in the area of or near the building sites and other infrastructure improvements proposed the 2025 Updated FMP. Therefore, this effect is considered less than significant.

Mitigation Measures: No mitigation is required.

Impact BIO-4: The implementation of the 2025 Updated FMP would not interfere substantially with the movement of wildlife.

Level of Significance: Less than significant

As previously discussed, given that dense development occurs to the north, south, and west of the campus (including Montgomery Hill), the campus does not provide habitat connectivity between open space areas and is not considered to be part of an established wildlife movement corridor. Additionally, the 2025 Updated FMP does not include the development of Montgomery Hill or other nearby open space areas and the projects under the 2025 Updated FMP would be concentrated in portions of the campus that are already developed with facilities. Therefore, this effect is considered less than significant.

Mitigation Measures: No mitigation is required.

4.3.4.5 Cumulative Impacts and Mitigation Measures

Cumulative development includes past, present, and reasonably foreseeable development that could affect the same biological resources as the 2025 Updated FMP in such a way that a combined physical impact could occur. As previously discussed, development associated with implementation of the 2025 Updated FMP would primarily affect the already developed and landscaped central campus and a small area of disturbed/weedy grassland that borders developed areas. The two additional minor projects would be located in areas that are already developed. Therefore, the 2025 Updated FMP would not result in a substantial loss of undeveloped land or wildlife habitat. Further, measures would be implemented to prevent the loss of special-status wildlife species and active bird nests (see mitigation measures **MM BIO-1a**, **MM BIO-1b**, and **MM BIO-1c**). Given that the implementation of the 2025 Updated FMP would result in the development of only a small area of weedy/undeveloped land, and that impacts to special-status species would be avoided through the implementation of avoidance measures, the project would not contribute substantially towards cumulative impacts to sensitive biological resources in the project region.

4.3.5 REFERENCES

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4.4 GEOLOGY AND SOILS

4.4.1 INTRODUCTION

This section presents a description of the existing geology, soils, and seismic conditions in the project area and analyzes the potential effects of implementation of the Evergreen Valley College (EVC) 2025 Updated Facilities Master Plan (FMP) related to these conditions.

No public and agency comments related to geology and soils were received in response to the Notice of Preparation (NOP) issued for this EIR.

4.4.2 ENVIRONMENTAL SETTING

4.4.2.1 Geologic Overview

Regional Geology

The project site is located on the eastern side of the Santa Clara Valley, in an area of gently undulating foothills, locally known as the Evergreen Hills, at the base of the East Bay Hills. The Santa Clara Valley is between the northwest-trending Santa Cruz Mountains to the west, and the northwest-trending Diablo Range to the east. The valley is a large trough that has been filled over time by sediment largely shed from these adjacent mountain ranges. The valley lies between two major right-lateral, strike-slip faults: the Hayward Fault zone to the east and the San Andreas Fault zone to the west. Numerous secondary faults associated with the major strike-slip faults are found along the foothills of the eastern Santa Clara Valley. The region is crossed by several northwest-striking faults associated with the Hayward Fault system (SJECCD 2001).

The geologic units of the EVC area consist mainly of Cretaceous marine sediments of the Knoxville Shale, Berryessa Formation, and Oakland Conglomerate, overlain by unconsolidated and/or poorly consolidated Plio-Pleistocene to Holocene alluvial deposits, including the Santa Clara Formation. The Knoxville Shale is a dark-colored, hard, fractured shale with minor sandstone or conglomerate beds. The Berryessa Formation includes micaceous siltstones and sandstones. The Oakland Conglomerate is a massive cobble and boulder conglomerate in a coarse sandy matrix. Much of the EVC area is underlain by unconsolidated and poorly consolidated clastic sediments, including conglomerate, sandstone, siltstone, and mudstone, that have been derived from upland areas to the east and southeast. Included in this sequence is the Santa Clara Formation, exposed primarily along the base of upland areas. Older alluvial fans, mid- to late-Pleistocene in age, border the upland areas and consist of sandy to silty gravels and coarse sands with well-developed soil profiles. Younger fan deposits, generally found at the outer edge of young alluvial fans, consist of moderately well sorted silts and fine sand with minor amounts of conglomerate and generally poorly developed soil profiles. The latter have been inferred to be Holocene in age. Fine-grained clay and silt-rich units comprise the interfluvial (area between streams) basin deposits (SJECCD 2001).

Site Geology

EVC is located in an area of gently undulating topography. The campus lies on an alluvial fan surface that dips gently to the west-southwest and merges with an essentially flat alluvial plain. A small hill forms the northeast corner of campus. The base of the hill exhibits a scarp (steep slope) suggestive of the location of the Evergreen Fault (SJECCD 2001).

The majority of the campus is situated on Pleistocene alluvial fan sediments. Shallow (approximately 7.5-meter-deep) borehole data reveal that the alluvial fan deposits include clayey gravel, silty sandy gravel, silty clay, sandy silt, and sandy clay. Sandstone and shale bedrock was encountered in one borehole located on the small hill in the northeastern corner of the campus (SJECCD 2001).

4.4.2.2 Soils

The following discussion summarizes the general characteristics of the soil types found on the campus. Please note that the following information is presented for general interpretation and planning purposes only (SJECCD 2001).

Surface soils beneath the campus are classified as Pleasanton, Zamora, Positas, and Altamont series soils. The Pleasanton series consists of well-drained loams that are underlain by old gravelly sedimentary alluvium. These soils are on fans and terraces and have slopes of 0 to 15 percent. The Zamora series consists of well-drained clay loams that are underlain by alluvium of mixed origin. These soils have slopes of 0 to 9 percent and are on alluvial fans. The Altamont series consists of well- drained clays that are underlain by sedimentary rock. These soils have slopes of 15 to 75 percent and are on uplands. The Positas series consists of moderately well drained soils underlain by weakly consolidated terrace material. These soils have slopes of 0 to 9 percent and are on old terraces (SJECCD 2001).

Surface soils beneath the southern portion of the campus are classified as Pleasanton loam, 0 to 2 percent slope (PoE), and surface soils beneath the majority of the northern portion of the campus are classified as Zamora clay loam, 0 to 2 percent slope (ZbA). For both of these soil types, permeability is moderately slow, runoff is very slow, and the hazard of erosion is none to slight (SJECCD 2001).

Surface soils beneath the northeastern portion of the campus are classified as Positas clay loam, 2 to 9 percent slope (PrC), and Altamont clay, 15 to 30 percent slope (AcE2). For Positas loams, runoff is slow and the hazard of erosion is slight where the soil is bare. For Altamont clays, runoff is medium to rapid and the hazard of erosion is medium to high (SJECCD 2001).

Much of the soils throughout San José, including the EVC campus area, are moderately to highly expansive. Moderately to highly expansive soils are found both on the valley floor and in hillside areas. Expansive soils shrink and swell when subjected to fluctuations in moisture content. Such soil movement may cause distress to overlying slabs-on-grade, pavements, and structures founded on shallow foundations. Expansive soils on sloping hillsides are subject to soil creep, which can exert lateral forces on foundations and retaining walls (City of San José 2011). Weak soil layers and lenses occur at random locations and depths beneath the campus. In addition, the majority of soils on the campus are designated as having "moderate" expansive characteristics (shrink-swell movements considered damaging only to substandard structures). The eastern edge of the campus is designated as containing soils with "high" expansive characteristics. Landslide susceptibility of the surrounding hillsides ranges from low to high (SJECCD 2001).

4.4.2.3 Seismicity

Faulting and Seismic Hazards

The Evergreen Fault traverses the eastern part of the campus, and this portion of the campus is within an Alquist-Priolo Earthquake Fault Zone.[1] Other active faults in the vicinity of the campus include the Hayward Fault (1.3 miles northeast), the Calaveras Fault (3 miles northeast), the Silver Creek Fault (1.5 miles southwest), and the San Andreas Fault (15.5 miles southwest). These faults have historically generated earthquakes and could affect the campus in the future (SJECCD 2001).

Ground Rupture

Based on its inclusion in an Earthquake Fault Zone, the Evergreen Fault is considered to be an "active" fault. The Alquist-Priolo Act defines an active fault as a fault which has "had surface displacement within Holocene time" (about the last 11,000 years). However, a previous study of the Evergreen Fault on the EVC campus indicates that the deposits overlying the units offset by faulting are pre-Holocene (more than 11,000 years), and are possibly as old as mid-Pleistocene (more than 100,000 years) in age. Additionally, the geometries of the fault plane suggest that the most recent movement on the Evergreen Fault did not rupture to the surface. Thus, the study concluded that the fault was not active (SJECCD 2001). However, more recent investigations of the East Valley thrust fault system, which includes the Evergreen Fault, indicate that these faults are active and may be capable of generating

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1 Prior to 1994, Earthquake Fault Zones were called Special Studies Zones.

damaging earthquakes (URS 2011). Therefore, for the purposes of this analysis, the Evergreen Fault is considered active and capable of surface rupture.

Ground Shaking

Ground shaking is the most widespread hazardous phenomenon associated with seismic activity in San José. Ground shaking will impact developments constructed on the valley floor and hillsides. Earthquake damage resulting from ground shaking is determined by several factors: the magnitude of an earthquake, depth of focus, distance from the fault, intensity, and duration of shaking, local ground water and soil conditions, presence of hillsides, structural design, and the quality of workmanship and materials used in construction (City of San José 2011).

Data from the Working Group on California Earthquake Probabilities indicate that there is a 67 percent chance for at least one earthquake of magnitude 7 or greater in the San Francisco Bay Area in the next 30 years. Earthquakes of this magnitude could occur on four fault segments in the region: the San Francisco Peninsula Segment of the San Andreas Fault, the northern or southern segments of the Hayward Fault, including the segment near the EVC campus; and the Rodgers Creek Fault. Alluvial deposits (such as those underlying the campus) have the potential to produce severe ground shaking (SJECCD 2001).

Liquefaction

Liquefaction is defined as the transformation of a granular material from a solid state into a liquefied state as a consequence of increased pore pressure and decreased effective stress. Liquefaction typically is caused by strong ground shaking during an earthquake. Observed types of ground failure resulting from liquefaction during earthquakes in the San Francisco Bay region include sand boils, lateral spreads, ground settlement, ground cracking, and ground warping. Observations of surface deformation and damage produced by liquefaction indicate that the effects tend to occur in areas underlain by saturated, unconsolidated sand, silt, and uncompacted artificial fill. Liquefaction susceptibility is a function of both the susceptibility of surficial deposits to liquefaction and the probability that earthquake ground motions will exceed a specified threshold level. The campus is not located in a liquefaction hazard zone designated by the State of California pursuant to the Seismic Hazards Mapping Act of 1990 (CGS 2001).

Lateral Spreading

Lateral spreading is the result of large, permanent lateral movements typically associated with sloping ground that is susceptible to liquefaction. Ground failure potential for the campus is rated as moderately low and the resultant lateral ground failure potential is rated as low (SJECCD 2001).

Slope Stability

The campus topography is relatively flat, with some hills in the northern portion of campus, but the campus is surrounded by hillside areas. The hilly areas on and near the campus are considered to be susceptible to earthquake-induced landslides by the State of California pursuant to the Seismic Hazards Mapping Act of 1990 (CGS 2001). An Earthquake Induced Landslide Hazard Zone is defined as an area where previous occurrence of landslide movement, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required. However, no landslides have occurred on the hillsides bordering the eastern edge of the campus. Some minor landslides have occurred in the hills to the east of Montgomery Hill Park, but due to the distance from the campus, these landslides do not pose a significant threat to campus facilities (SJECCD 2001).

4.4.3 REGULATORY SETTING

4.4.3.1 Federal

Clean Water Act

The Federal Water Pollution Control Act of 1972, often referred to as the Clean Water Act, empowers the US Environmental Protection Agency (US EPA) with regulation of wastewater and stormwater discharges into surface waters by using National Pollutant Discharge Elimination System (NPDES) permits and pretreatment standards. At the state level, these permits are issued by the Regional Water Quality Control Boards, but the US EPA may retain jurisdiction at its discretion. The Clean Water Act's primary application for geology and soils is with respect to the control of soil erosion during construction.

4.4.3.2 State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (California Public Resources Code Section 25523(a); 20 CCR 1752(b) and (c); 1972 [amended 1994]) was passed in 1972 to regulate development on or near active fault traces to reduce the hazards associated with surface faulting. The Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. Within Alquist-Priolo Earthquake Fault Zones, site-specific geologic investigations must be performed prior to permitting, and must demonstrate that a proposed building will not be constructed across active faults. If an active fault is found, any structures for human occupancy must be set back from the fault, generally 25 to 50 feet.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act addresses seismically induced hazards, including liquefaction and landsliding (slope instability). Seismic hazard zones showing areas where there is potential for ground shaking, liquefaction, landsliding, and other types of ground failure have been developed to better regulate development in hazard-prone areas. For sites located within a seismic hazard zone, geotechnical investigations must be conducted to assess if a hazard exists, and the investigations must provide options for mitigation if any hazards are identified. Geotechnical investigations within seismic hazard zones should be conducted following guidelines specified by California Geological Survey (CGS) Special Publication 117, "Guidelines for Evaluating and Mitigating Seismic Hazards." The California Public Resources Code Chapter 7.8, 1990 Seismic Hazards Mapping Act, allows the lead agency to withhold permits until geologic investigations are conducted and mitigation measures are incorporated into plans. The Seismic Hazards Mapping Act is relevant to conditions at the campus.

California Building Standards Code

The State of California's minimum standards for structural design and construction are given in the California Building Standards Code (CBSC) (CCR Title 24). The CBSC is based on the federal Uniform Building Code (International Code Council 1997), which is used widely throughout United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for California conditions with numerous, more detailed or more stringent regulations. The CBSC provides standards for various aspects of construction, including but not limited to: excavation, grading, and earthwork construction; fills and embankments; expansive soils, foundation investigations, and liquefaction potential; and soil strength loss.

4.1.3.3 Local

Envision San José 2040 General Plan

The proposed project would be located on land owned and operated by the San Jose/Evergreen Community College District (SJECCD). As a state entity, SJECCD is exempted by the state constitution from compliance with local land use regulations, including general plans and zoning. However, SJECCD seeks to cooperate with local jurisdictions to reduce any physical consequences of potential land use conflicts to the extent feasible. Policies in the Envision San José 2040 General Plan (2011) that relate to soils and geology are provided below.

Seismic Hazards

Policy EC-3.1 Design all new or remodeled habitable structures in accordance with the most recent California Building Code and California Fire Code as amended locally and adopted by the City of San José, including provisions regarding lateral forces.

Policy EC-3.2 Within seismic hazard zones identified under the Alquist-Priolo Fault Zoning Act, California Seismic Hazards Mapping Act and/or by the City of San José, complete geotechnical and geological investigations and approve development proposals only when the severity of seismic hazards have been evaluated and appropriate mitigation measures are provided as reviewed and approved by the City of San José Geologist. State guidelines for evaluating and mitigating seismic hazards and the City-adopted California Building Code will be followed.

Policy EC-3.5 Locate, design and construct vital public utilities, communication infrastructure, and transportation facilities in a manner that maximizes risk reduction and functionality during and after an earthquake.

Geologic and Soil Hazards

Policy EC-4.5 Ensure that any development activity that requires grading does not impact adjacent properties, local creeks and storm drainage systems by designing and building the site to drain properly and minimize erosion. An Erosion Control Plan is required for all private development projects that have a soil disturbance of 1 acre or more, are adjacent to a creek/river, and/or are located in hillside areas. Erosion Control Plans are also required for any grading occurring between October 15 and April 15.

Policy EC-4.11 Require the preparation of geotechnical and geological investigation reports for projects within areas subject to soils and geologic hazards, and require review and implementation of mitigation measures as part of the project approval process.

4.4.4 IMPACTS AND MITIGATION MEASURES

4.4.4.1 Standards of Significance

In accordance with Appendix G of the *2013 California Environmental Quality Act (CEQA) Guidelines*, the impact of the proposed project related to geology and soils would be considered significant if it would:

- expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving
  - rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
  - strong seismic ground shaking;
  - seismic-related ground failure, including liquefaction; and
  - landslides;
- result in substantial soil erosion or the loss of topsoil;
- be located on a geologic unit or soil that is unstable or would become unstable as a result of the project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse;
- be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; or
- have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

4.4.4.2 Issues Not Discussed Further

The analysis in the Initial Study prepared for the proposed project and circulated with the NOP concluded that further analysis of the following issues was not required in the EIR.

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.

An Alquist-Priolo Earthquake Fault Zone associated with the Evergreen Fault passes through the eastern portion of the campus (CGS 2011), and this fault is considered active (URS 2011). However, no new development associated with the 2025 Updated FMP would occur within the earthquake fault zone, and the Roble and Acacia cluster buildings that currently lie partly within this zone would be demolished. As a result, future development on the campus would not expose structures and people to hazards associated with the rupture of a known earthquake fault. There would be no impact with regard to this criterion.

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.

The campus is not located in a liquefaction hazard zone designated by the State of California pursuant to the Seismic Hazards Mapping Act of 1990 (CGS 2001). As a result, future development on the campus would not expose structures and people to hazards associated with seismic-related ground failure, including liquefaction. There would be no impact with regard to this criterion.

- Result in substantial soil erosion or the loss of topsoil.

Construction of facilities identified in the 2025 Updated FMP would require activities such as vegetation removal and grading that would expose soil to erosion. For projects that would disturb 1 acre or more, coverage under the state NPDES General Permit for Discharges of Storm Water Associated with Construction Activity would be required prior to construction. The construction contractor would be required to file a notice of intent (NOI) with the State Water Resources Control Board and develop and implement a site-specific Storm Water Pollution Prevention Plan (SWPPP) that specifies Best Management Practices (BMPs) to control on-site erosion and off-site sedimentation and to keep construction pollutants from coming into contact with storm water. The District would have oversight responsibility and would have the authority to shut down construction in the event the SWPPP is improperly implemented. For projects that would disturb less than 1 acre, the campus would develop an erosion control plan which would include sediment and erosion controls to limit on-site erosion and off-site sedimentation and to keep construction pollutants from coming into contact with storm water. With these required measures in place, impacts related to accelerated erosion and sedimentation are expected to be less than significant.

- be located on a geologic unit or soil that is unstable or would become unstable as a result of the project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse.

Weak soil layers and lenses occur at random locations and depths beneath the campus (SJECCD 2001). Therefore, future development on the campus could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of development. Construction of facilities identified in the 2025 Updated FMP may require the creation of cut or fill slopes, which could be unstable if they are improperly designed or constructed. However, development would be designed and constructed in accordance with the current California Building Code (CBC), which includes provisions that specifically address safe grading practices and cut and fill slope stability. Impacts related to unstable cut or fill slopes are therefore expected to be less than significant.

- Be located on expansive soil, as defined in Section 1802.3.2 of the 2007 CBC, creating substantial risks to life or property.

The expansive potential for soils on the eastern portion of the campus could cause damage to buildings, building foundations, roads, and other structures (SJECCD 2001). The properties of native materials that underlie individual development sites on the campus at depth would be evaluated during the development of the site-specific geotechnical investigations that the campus will prepare for the project design of each new facility identified by the 2025 Updated FMP. All facilities identified in the 2025 Updated FMP will adhere to the current CBC, which includes detailed provisions to ensure that the design of new facilities is appropriate to site soil conditions, including requirements to address expansive and otherwise problematic soils. With adherence to the CBC, impacts related to site soil conditions—including but not limited to expansive soils, if any are present—would be less than significant.

- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Future development on the campus under the 2025 Updated FMP would not involve the installation of septic tanks or alternative wastewater disposal systems. There would be no impact with regard to this criterion.

4.4.4.3 Methodology

The following resources were reviewed to assess the potential for impacts associated with site geologic conditions.

- Prior environmental review documents for the campus
- Regional and state data related to geologic, seismic, and soils conditions (e.g., seismic hazard mapping prepared by the US Geological Survey and CGS)
- Relevant federal and state regulations

The analysis compares identified impacts to the standards of significance stated above and determines the impact's level of significance under CEQA. If the impact is determined to be significant, the analysis identifies feasible mitigation measures to eliminate the impact or reduce it to a less than significant level. If the impact cannot be reduced to a less than significant level after implementation of all feasible mitigation measures, then the impact is identified as significant and unavoidable. The project's potential contribution to cumulative impacts is also identified.

4.4.4.4 Project Impacts and Mitigation Measures

Impact GEO-1: **Development under the 2025 Updated FMP could expose people and structures on campus to substantial adverse effects related to seismic ground shaking and/or landslides.**

Level of Significance: Potentially significant

The campus could be subject to strong ground shaking in the event of an earthquake originating along the Evergreen Fault or one of the several nearby faults discussed above. This hazard exists throughout the Bay Area and could pose a risk to public safety and property by exposing people, property, or infrastructure to potentially adverse effects including strong seismic ground shaking. However, the design of all structures identified in the 2025 Updated FMP would comply with the current CBC, which includes specific provisions for structural seismic safety. As a result, the impact related to ground shaking is considered less than significant.

As discussed above, the hillsides adjacent to the campus are susceptible to earthquake-induced landslides. Several structures are proposed in the vicinity of this zone, and thus could expose students and employees to landslide threats. This represents a potentially significant impact. To address this hazard, the campus would perform geotechnical investigations to evaluate the potential for landslides at each building site. These reports would include recommendations applicable to foundation design, earthwork, and site preparation to minimize or avoid the potential for building damage and injury. The Campus would implement mitigation measure **MM GEO-1** to ensure that such investigations continue to be performed as the campus develops under the 2025 Updated FMP, and that the recommendations of such investigations are incorporated into project designs. Moreover, the design of all projects would comply with the current CBC, which includes specific provisions for structural seismic safety. As a result, the impact related to landslides would be reduced to a less than significant level.

Mitigation Measures:

MM GEO-1: Where existing geotechnical information is not adequate, detailed geotechnical investigations shall be performed for areas that will support buildings or foundations. Such investigations for building or foundation projects on the Evergreen Valley College campus will comply with the California Geological Survey's *Guidelines for Evaluating and Mitigating Seismic Hazards in California* (Special Publication 117), which specifically address the mitigation of landslide hazards in designated Seismic Hazard Zones (CGS 2003). All recommendations of the geotechnical investigations shall be incorporated into project designs.

Significance after Mitigation: Less than significant

4.4.4.5 Cumulative Impacts and Mitigation Measures

The broader geographic area for the analysis of cumulative impacts involving risks associated with earthquakes and geologic hazards is the City of San José. New development throughout San José will comply with the current seismic provisions of the CBC and local building codes. These state and local requirements are designed to ensure that structures developed in regions prone to significant ground shaking can withstand the likely stress that would result. Compliance with the current CBC by the development community, including the EVC campus, would ensure that cumulative effects involving seismic ground shaking and related ground failure would be less than significant. It is reasonable to assume that the City of San José would enforce the seismic provisions of the current CBC for all new development, and significant adverse cumulative impacts would be avoided.

4.4.5 REFERENCES

California Department of Conservation, California Geological Survey. 2001, State of California Seismic Hazard Zones, San José East Quadrangle

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San José/Evergreen Community College District (SJECCD). 2001. Environmental Impact Report for the Evergreen Valley College Facilities Master Plan. Prepared by Impact Sciences, Inc.

URS Corporation. 2011. Memorandum between Mark A. Miller, Senior Project Executive, Gilbane Building Company, and Mark E. Schmoll, C.E.G. 1361, Senior Project Geologist and L. Allen Moore, G.E. 2607, Geotechnical Project Manager regarding Clarification of Evergreen Fault Status. August 17.

4.5 GREENHOUSE GAS EMISSIONS

4.5.1 INTRODUCTION

This section discusses the existing global, national, and statewide conditions related to greenhouse gases (GHG) and global climate change and evaluates the potential impacts on global climate from the implementation of the 2025 Updated Facilities Master Plan (FMP) for the Evergreen Valley College (EVC) campus (the two minor projects unrelated to the FMP proposed by the Campus would result in no impacts on global climate and are not discussed further in this section). The section also provides a discussion of the applicable federal, state, regional, and local agencies that regulate, monitor, and control GHG emissions. Copies of the calculations made to estimate GHG emissions associated with the proposed project and supporting technical data are found in **Appendix 4.5** of this EIR.

One comment related to GHG emissions was received in response to the Notice of Preparation (NOP) issued for this EIR. The commenter requested that the Draft EIR should discuss how the 2025 Updated FMP will conform to the City of San José's Greenhouse Gas (GHG) Reduction Strategy.

Although as a state entity, San Jose/Evergreen Community College District (SJECCD) is exempted by the state constitution from compliance with local land use regulations and is not required to conform with the City's GHG Reduction Strategy, however, SJECCD seeks to cooperate with local jurisdictions and has a long tradition of working voluntarily and cooperatively with the City of San José and other local and regional agencies. The proposed project's conformance with the City's GHG Reduction Strategy is presented later in this section.

4.5.2 EXISTING CONDITIONS

4.5.2.1 Background

Global climate change refers to any significant change in climate measurements, such as temperature, precipitation, or wind, lasting for an extended period (i.e., decades or longer) (US EPA 2008a). Climate change may result from:

- natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- natural processes within the climate system (e.g., changes in ocean circulation, reduction in sunlight from the addition of GHG and other gases to the atmosphere from volcanic eruptions); and
- human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, desertification).

The primary effect of global climate change has been a rise in the average global tropospheric temperature of 0.2 degree Celsius (°C) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using 2000 emission rates shows that further warming is likely to occur, which would induce further changes in the global climate system during the current century (IPCC 2007). Changes to the global climate system and ecosystems, and to California, could include:

- declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures (IPCC 2007);
- rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets (model-based projections of global average sea level rise at the end of the 21st century (2090–2099) range from 0.18 meter to 0.59 meter or 0.59 foot to 1.94 feet) (IPCC 2007);
- changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones (IPCC 2007);
- declining Sierra snowpack levels, which account for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years (Cal EPA 2006);
- increasing the number of days conducive to ozone formation by 25 to 85 percent (depending on the future temperature scenario) in high ozone areas located in the Southern California area and the San Joaquin Valley by the end of the 21st century (Cal EPA 2006);
- increasing the potential for erosion of California's coastlines and sea water intrusion into the Sacramento and San Joaquin Delta and associated levee systems due to the rise in sea level (California EPA 2006);
- increasing pest infestation, making California more susceptible to forest fires (Cal EPA 2006);
- increasing the demand for electricity by 1 to 3 percent by 2020 due to rising temperatures resulting in hundreds of millions of dollars in extra expenditures (Cal EPA 2006); and
- summer warming projections in the first 30 years of the 21st century ranging from about 0.5 to 2 °C (0.9 to 3.6 °F) and by the last 30 years of the 21st century, from about 1.5 to 5.8 °C (2.7 to 10.5 °F) (Cal EPA 2006).

The natural process through which heat is retained in the troposphere[1] is called the "greenhouse effect." The greenhouse effect traps heat in the troposphere through a threefold process as follows: (1) short-wave radiation in the form of visible light emitted by the Sun is absorbed by the Earth as heat; (2) long-wave

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1 The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface from 6 to 7 miles).

radiation re-emitted by the Earth; and (3) GHGs in the upper atmosphere absorbing or trapping the long-wave radiation and re-emitting it back towards the Earth and into space. This third process is the focus of current climate change actions.

While water vapor and carbon dioxide (CO_2) are the most abundant GHGs, other trace GHGs have a greater ability to absorb and re-radiate long-wave radiation. To gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-emit long-wave radiation over a specific period. The GWP of a gas is determined using CO_2 as the reference gas, with a GWP of 1 over 100 years (IPCC 1996).[2] For example, a gas with a GWP of 10 is 10 times more potent than CO_2 over 100 years. The use of GWP allows GHG emissions to be reported using CO_2 as a baseline. The sum of each GHG multiplied by its associated GWP is referred to as "carbon dioxide equivalents" (CO_2e). This essentially means that 1 metric ton of a GHG with a GWP of 10 has the same climate change impacts as 10 metric tons of CO_2.

4.5.2.2 Greenhouse Gases

State law defines GHGs to include the following compounds:

- **Carbon Dioxide (CO_2)**. Carbon dioxide primarily is generated by fossil fuel combustion from stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources over the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 35 percent (US EPA 2008b). Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining the GWP of other GHGs. In 2004, 82.8 percent of California's GHG emissions were carbon dioxide (California Energy Commission 2007).

- **Methane (CH_4)**. Methane is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation (US EPA n.d.[a]). Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The GWP of methane is 21.

- **Nitrous Oxide (N_2O)**. Nitrous oxide is produced by natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 310.

- **Hydrofluorocarbons (HFCs)**. HFCs typically are used as refrigerants in both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is growing particularly as the continued phase-out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The GWP of HFCs ranges from 140 for HFC-152a to 6,300 for HFC-236fa.

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2 All Global Warming Potentials are given as 100-year values.

- **Perfluorocarbons (PFCs)**. Perfluorocarbons are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. Perfluorocarbons are potent GHGs with a GWP several thousand times that of carbon dioxide, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years) (Energy Information Administration 2007). The GWPs of PFCs range from 5,700 to 11,900.

- **Sulfur Hexafluoride (SF_6)**. Sulfur hexafluoride is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. Sulfur hexafluoride is the most potent GHG that has been evaluated by the Intergovernmental Panel on Climate Change with a GWP of 23,900. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio, as compared to carbon dioxide (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm] of CO_2) (US EPA n.d.[b]).

4.5.2.3 Contributions to Greenhouse Gas Emissions

Global

Worldwide anthropogenic (man-made) GHG emissions are tracked for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions for Annex I nations are available through 2007. Man-made GHG emissions for Non-Annex I nations are available through 2005. The sum of these emissions totaled approximately 42,133 million metric tons of CO_2 equivalents ($MMTCO_2e$).[3] It should be noted that global emissions inventory data are not all from the same year and may vary depending on the source of the emissions inventory data.[4] The top five countries and the European Union accounted for approximately 55 percent of the total global GHG emissions according to the most recently available data (See **Table 4.5-1, Top Five GHG Producer Countries and the European Union [Annual]**). The GHG emissions in more recent years may differ from the inventories presented in **Table 4.5-1**; however, the data is representative of currently available global inventory data.

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3 The CO_2 equivalent emissions commonly are expressed as “million metric tons of carbon dioxide equivalent ($MMTCO_2E$).” The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by the associated GWP, such that $MMTCO_2E$ = (million metric tons of a GHG) x (GWP of the GHG). For example, the GWP for methane is 21. This means that the emission of one million metric tons of methane is equivalent to the emission of 21 million metric tons of CO_2.

4 The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2005 data, the UNFCCC data for the most recent year were used. United Nations Framework Convention on Climate Change, “Annex I Parties – GHG total without LULUCF,” http://unfccc.int/ghg_emissions_data/ghg_data_from_unfccc/time_series_annex_i/ items/3841.php and “Flexible GHG Data Queries” with selections for total GHG emissions excluding LULUCF/LUCF, all years, and non-Annex I countries, http://unfccc.int/di/FlexibleQueries/Event.do?event= showProjection. n.d.

Table 4.5-1
Top Five GHG Producer Countries and the European Union (Annual)

Emitting Countries	GHG Emissions ($MMTCO_2e$)
China	7,250
United States	7,217
European Union (EU), 27 Member States	5,402
Russian Federation	2,202
India	1,863
Japan	1,412
Total	**25,346**

Source: World Resources Institute, "Climate Analysis Indicators Tool (CAIT)," http://cait.wri.org/. 2010. Excludes emissions and removals from land use, land-use change, and forestry (LULUCF).
Note: Emissions for Annex I nations are based on 2007 data. Emissions for Non-Annex I nations (e.g., China, India) are based on 2005 data).

United States

As noted in **Table 4.5-1**, the United States was the number two producer of global GHG emissions. The primary GHG emitted by human activities in the United States was CO_2, representing approximately 84 percent of total GHG emissions (US EPA 2008a). Carbon dioxide from fossil fuel combustion, the largest source of GHG emissions, accounted for approximately 80 percent of US GHG emissions (US EPA 2008a).

State of California

CARB compiles GHG inventories for the State of California. Based on the 2008 GHG inventory data (i.e., the latest year for which data are available), California emitted 474 $MMTCO_2e$ ***including*** emissions resulting from imported electrical power in 2008 (CARB 2010). Based on the CARB inventory data and GHG inventories compiled by the World Resources Institute, California's total statewide GHG emissions rank second in the United States (Texas is number one) with emissions of 417 $MMTCO_2e$ ***excluding*** emissions related to imported power(CARB 2010).

The primary contributors to GHG emissions in California are transportation, electric power production from both in-state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities. **Table 4.5-2, GHG Emissions in California**, provides a summary of GHG emissions reported in California in 1990 and 2008 separated by categories defined by the United Nations Intergovernmental Panel on Climate Change (IPCC).

Table 4.5-2
GHG Emissions in California

Source Category	1990 ($MMTCO_2e$)	Percent of Total	2008 ($MMTCO_2e$)	Percent of Total
ENERGY	**386.41**	**89.2%**	**413.80**	**86.6%**
Energy Industries	157.33	36.3%	171.23	35.8%
Manufacturing Industries & Construction	24.24	5.6%	16.67	3.5%
Transport	150.02	34.6%	173.94	36.4%
Other (Residential/Commercial/Institutional)	48.19	11.1%	46.59	9.8%
Non-Specified	1.38	0.3%	0.00	0.0%
Fugitive Emissions from Oil & Natural Gas	2.94	0.7%	3.28	0.7%
Fugitive Emissions from Other Energy Production	2.31	0.5%	2.09	0.4%
INDUSTRIAL PROCESSES & PRODUCT USE	**18.34**	**4.2%**	**30.11**	**6.3%**
Mineral Industry	4.85	1.1%	5.35	1.1%
Chemical Industry	2.34	0.5%	0.06	0.0%
Non-Energy Products from Fuels & Solvent Use	2.29	0.5%	1.97	0.4%
Electronics Industry	0.59	0.1%	0.80	0.2%
Substitutes for Ozone Depleting Substances	0.04	0.0%	13.89	2.9%
Other Product Manufacture and Use	3.18	0.7%	1.66	0.3%
Other	5.05	1.2%	6.39	1.3%
AGRICULTURE, FORESTRY, & OTHER LAND USE	**19.11**	**4.5%**	**24.52**	**5.1%**
Livestock	11.67	2.7%	16.28	3.4%
Land	0.19	0.0%	0.19	0.0%
Aggregate Sources & Non-CO_2 Sources on Land	7.26	1.7%	7.95	1.7%
WASTE	**9.42**	**2.2%**	**9.41**	**2.0%**
Solid Waste Disposal	6.26	1.4%	6.71	1.4%
Wastewater Treatment & Discharge	3.17	0.7%	2.70	0.6%
EMISSIONS SUMMARY				
Gross California Emissions	433.29		477.74	
Sinks from Forests and Rangelands	-6.69		-3.98	
Net California Emissions	426.60		473.76	

Sources:

[1] *California Air Resources Board, "California Greenhouse Gas 1990-2004 Inventory by IPCC Category - Summary," http://www.arb.ca.gov/cc/inventory/archive/archive.htm. 2010.*

[2] *California Air Resources Board, "California Greenhouse Gas 2000-2008 Inventory by IPCC Category - Summary," http://www.arb.ca.gov/cc/inventory/data/data.htm. 2010.*

Between 1990 and 2008, the population of California grew by approximately 7.3 million (from 29.8 to 37.9 million) (US Census 2009). This represents an increase of approximately 27.2 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from $788 billon in 1990 to $1.8 trillion in 2008 representing an increase of approximately 128 percent (over twice the 1990 gross state product) (CA Department of Finance 2009). Despite the population and economic growth, California's net GHG emissions only grew by approximately 11 percent. The California Energy Commission (CEC) attributes the slow rate of growth to the success of California's renewable energy programs and its commitment to clean air and clean energy (CEC 2006a).

Global Ambient CO_2 Concentrations

Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of carbon dioxide, methane, and nitrous oxide from before the start of industrialization, around 1750, to over 650,000 years ago. For the pre-1750 period, it was found that carbon dioxide concentrations ranged from 180 ppm to 300 ppm. For the period from around 1750 to the present, global carbon dioxide concentrations increased from a pre-industrialization period concentration of 280 ppm to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range (California Energy Commission 2006a). Global methane and nitrous oxide concentrations show similar increases for the same period (see **Table 4.5-3, Comparison of Global Pre-Industrial and Current GHG Concentrations**).

Table 4.5-3
Comparison of Global Pre-Industrial and Current GHG Concentrations

Greenhouse Gas	Early Industrial Period Concentrations (ppm)	Natural Range for Last 650,000 Years (ppm)	2005 Concentrations (ppm)
Carbon Dioxide (CO_2)	280	180 to 300	379
Methane (CH_4)	715	320 to 790	1,774
Nitrous Oxide (N_2O)	270	NA	319

Source: Intergovernmental Panel on Climate Change, Climate Change 2007: The Physical Science Basis, Summary for Policymakers, (2007).

4.5.3 REGULATORY FRAMEWORK

4.5.3.1 Intergovernmental Panel on Climate Change

The World Meteorological Organization (WMO) and United Nations Environmental Program (UNEP) established the IPCC in 1988. The goal of the IPCC is to evaluate the risk of climate change caused by human activities. Rather than performing research or monitoring climate, the IPCC relies on peer-reviewed and published scientific literature to make its assessment. While not a regulatory body, the IPCC assesses information (i.e., scientific literature) regarding human-induced climate change and the impacts of human-induced climate change, and recommends options to policy makers for adaptation to and mitigation of climate change. The IPCC reports its evaluations in special reports called "assessment reports." The latest assessment report (i.e., Fourth Assessment Report, consisting of three working group reports and a synthesis report based on the first three reports) was published in 2007.[5] In its 2007 report, the IPCC stated that global temperature increases since the mid-20th century were "very likely" attributable to manmade activities (greater than 90 percent certainty) (IPCC 2007).

4.5.3.2 Federal

In *Massachusetts vs. EPA*, the Supreme Court held that United States Environmental Protection Agency (US EPA) has the statutory authority under Section 202 of the Clean Air Act (CAA) to regulate GHGs from new motor vehicles. The court did not hold that the US EPA was required to regulate GHG emissions; however, it indicated that the agency must decide whether GHGs from motor vehicles cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. Upon the final decision, the President signed Executive Order 13432 on May 14, 2007, directing the US EPA, along with the Departments of Transportation, Energy, and Agriculture, to initiate a regulatory process that responds to the Supreme Court's decision.

In December 2007, the President signed the Energy Independence and Security Act of 2007, which sets a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022 and sets a national fuel economy standard of 35 miles per gallon by 2020. The act also contains provisions for energy efficiency in lighting and appliances and for the implementation of green building technologies in federal buildings. On July 11, 2008, the US EPA issued an Advanced Notice of Proposed Rulemaking (ANPRM) on regulating GHGs under the CAA. The ANPRM reviews the various CAA provisions that may be applicable to the regulation of GHGs and presents potential regulatory approaches and technologies for reducing GHG emissions. On April 10, 2009, the US EPA published the Proposed Mandatory Greenhouse Gas Reporting Rule in the *Federal Register* (US EPA 2009). The rule was

5 The IPCC's Fourth Assessment Report is available online at http://www.ipcc.ch/.

adopted on September 22, 2009 and covers approximately 10,000 facilities nationwide, accounting for 85 percent of US GHG emissions.

On September 15, 2009, the US EPA and the Department of Transportation's (DOT) National Highway Traffic Safety Administration (NHTSA) issued a joint proposal to establish a national program consisting of new standards for model year 2012 through 2016 light-duty vehicles that will reduce GHG emissions and improve fuel economy. The proposed standards would be phased in and would require passenger cars and light-duty trucks to comply with a declining emissions standard. In 2012, passenger cars and light-duty trucks would have to meet an average standard of 295 grams of CO_2 per mile and 30.1 miles per gallon. By 2016, the vehicles would have to meet an average standard of 250 grams of CO_2 per mile and 35.5 miles per gallon.[6] These standards were formally adopted by the US EPA and DOT on April 1, 2010.

On December 7, 2009, the US EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) in the atmosphere threaten the public health and welfare of current and future generations.

- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

While these findings do not impose additional requirements on industry or other entities, this action was a prerequisite to finalizing the US EPA's proposed GHG emissions standards for light-duty vehicles, which were jointly proposed by the US EPA and DOT. On April 1, 2010, the US EPA and NHTSA issued final rules requiring that by the 2016 model year, manufacturers must achieve a combined average vehicle emission level of 250 grams of CO_2 per mile, which is equivalent to 35.5 miles per gallon as measured by US EPA standards. These agencies are currently in the process of developing similar regulations for the 2017 through 2025 model years.

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6 The CO_2 emission standards and fuel economy standards stated are based on US EPA formulas.

4.5.3.3 State

Title 24 Building Standards Code

The California Energy Commission first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions were adopted in 2008 and became effective on January 1, 2010.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality (California Building Standards Commission 2009). The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). The CBSC has released a *2010 Draft California Green Building Standards Code* on its website (California Building Standards Commission 2010). The update to Part 11 of the Title 24 Building Standards Code became effective on January 1, 2011. Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

Assembly Bill 1493

In response to the transportation sector's contribution of more than half of California's CO_2 emissions, Assembly Bill 1493 (AB 1493, Pavley) was enacted on July 22, 2002. AB 1493 requires CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles whose primary use is noncommercial personal transportation. CARB adopted the standards in September 2004. The new standards will be phased in during the 2009–2016 model years. When fully phased in, the near term (2009–2012) standards will result in a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the midterm (2013–2016) standards will result in a reduction of about 30 percent.

Before these regulations may go into effect, the US EPA must grant California a waiver under the federal CAA, which ordinarily preempts state regulation of motor vehicle emission standards. On June 30, 2009, the US EPA formally approved California's waiver request. However, in light of the September 15, 2009, announcement by the US EPA and NHTSA regarding the national program to reduce vehicle GHG emissions, California—and states adopting California emissions standards—have agreed to defer to the proposed national standard through model year 2016 if granted a waiver by the US EPA. The 2016 endpoint of the two standards is similar, although the national standard ramps up slightly more slowly than required under the California standard. The Pavley standards require additional reductions in CO_2 emissions beyond 2016 (referred to as Phase II standards). While the Phase II standards have yet to be fully developed, CARB has made it clear that the state intends to pursue additional reductions from motor vehicles in the 2017 through 2020 timeframe under the California Global Warming Solutions Act of 2006.

Executive Order S-3-05 and the Climate Action Team

In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. The Secretary of Cal/EPA is required to coordinate efforts of various agencies in order to collectively and efficiently reduce GHGs. Some of the agency representatives involved in the GHG reduction plan include the Secretary of the Business, Transportation and Housing Agency, the Secretary of the Department of Food and Agriculture, the Secretary of the Resources Agency, the Chairperson of CARB, the Chairperson of the CEC, and the President of the Public Utilities Commission.

Representatives from each of the aforementioned agencies comprise the Climate Action Team. The Cal/EPA secretary is required to submit a biannual progress report from the Climate Action Team to the governor and state legislature disclosing the progress made toward GHG emission reduction targets. In addition, another biannual report must be submitted illustrating the impacts of global warming on California's water supply, public health, agriculture, coastline, and forests, and reporting possible mitigation and adaptation plans to combat these impacts. Some strategies currently being implemented by state agencies include CARB introducing vehicle climate change standards and diesel anti-idling measures, the Energy Commission implementing building and appliance efficiency standards, and the Cal/EPA implementing its green building initiative. The Climate Action Team also recommends future emission reduction strategies, such as using only low-GWP refrigerants in new vehicles, developing ethanol as an alternative fuel, reforestation, solar power initiatives for homes and businesses, and investor-owned utility energy efficiency programs. According to the report, implementation of current and future emission reduction strategies has the potential to achieve the goals set forth in Executive Order S-3-05.

Assembly Bill 32

In furtherance of the goals established in Executive Order S-3-05, the legislature enacted Assembly Bill 32 (AB 32, Nuñez and Pavley), the California Global Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27, 2006. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major industries with penalties for noncompliance. AB 32 requires the state to undertake several actions; the major requirements are discussed below.

CARB Early Action Measures

CARB is responsible for carrying out and developing the programs and requirements necessary to achieve the goal of AB 32—the reduction of California's GHG emissions to 1990 levels by 2020. The first action under AB 32 resulted in CARB's adoption of a report listing three specific early-action greenhouse gas emission reduction measures on June 21, 2007. On October 25, 2007, CARB approved six additional early-action GHG reduction measures under AB 32. CARB has adopted regulations for all early action measures. The early-action measures are divided into three categories:

- Group 1 – GHG rules for immediate adoption and implementation
- Group 2 – Several additional GHG measures under development
- Group 3 – Air pollution controls with potential climate co-benefits

The original three adopted early-action regulations meeting the narrow legal definition of "discrete early-action GHG reduction measures" include:

- A low-carbon fuel standard to reduce the "carbon intensity" of California fuels;
- Reduction of refrigerant losses from motor vehicle air conditioning system maintenance to restrict the sale of "do-it-yourself" automotive refrigerants; and
- Increased methane capture from landfills to require broader use of state-of-the-art methane capture technologies.

The six additional early-action regulations adopted on October 25, 2007, also meeting the narrow legal definition of "discrete early-action GHG reduction measures," include:

- Reduction of aerodynamic drag, and thereby fuel consumption, from existing trucks and trailers through retrofit technology;

- Reduction of auxiliary engine emissions of docked ships by requiring port electrification;
- Reduction of perfluorocarbons from the semiconductor industry;
- Reduction of propellants in consumer products (e.g., aerosols, tire inflators, and dust removal products);
- The requirement that all tune-up, smog check, and oil change mechanics ensure proper tire inflation as part of overall service in order to maintain fuel efficiency; and
- Restriction on the use of sulfur hexafluoride (SF_6) from non-electricity sectors if viable alternatives are available.

State of California Greenhouse Gas Inventory and 2020 Limit

As required under AB 32, on December 6, 2007, CARB approved the 1990 greenhouse gas emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was set at 427 $MMTCO_2e$. CARB also projected the state's 2020 GHG emissions under "business as usual" (BAU) conditions—that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. CARB used an average of the state's GHG emissions from 2002 through 2004 and projected the 2020 levels based on population and economic forecasts. The projected net emissions totaled approximately 596 $MMTCO_2e$. Therefore, the state must reduce its 2020 BAU emissions by approximately 29 percent in order to meet the 1990 target.

The inventory revealed that in 1990, transportation, with 35 percent of the state's total emissions, was the largest single sector, followed by industrial emissions, 24 percent; imported electricity, 14 percent; in-state electricity generation, 11 percent; residential use, 7 percent; agriculture, 5 percent; and commercial uses, 3 percent (these figures represent the 1990 values, compared to **Table 4.5-2**, which presents 2006 values). AB 32 does not require individual sectors to meet their individual 1990 GHG emissions inventory; the total statewide emissions are required to meet the 1990 threshold by 2020.

CARB Mandatory Reporting Requirements

In addition to the 1990 emissions inventory, CARB also adopted regulations requiring the mandatory reporting of GHG emissions for large facilities on December 6, 2007. The mandatory reporting regulations require annual reporting from the largest facilities in the state, which account for approximately 94 percent of point source greenhouse gas emissions from industrial and commercial stationary sources in California. About 800 separate sources fall under the new reporting rules and include electricity generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and industrial sources that emit over 25,000 tons of carbon dioxide each year from on-site stationary combustion sources. Transportation sources, which account for

38 percent of California's total GHG emissions, are not covered by these regulations but will continue to be tracked through existing means.

AB 32 Climate Change Scoping Plan

As indicated above, AB 32 requires CARB to adopt a scoping plan indicating how reductions in significant GHG sources will be achieved through regulations, market mechanisms, and other actions. After receiving public input on their discussion draft of the scoping plan, the CARB Governing Board approved the *Climate Change Scoping Plan* on December 11, 2008. Key elements of the Scoping Plan include the following recommendations:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a statewide renewable energy mix of 33 percent
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation

Under the Scoping Plan, approximately 85 percent of the state's emissions are subject to a cap-and-trade program where covered sectors are placed under a declining emissions cap. The emissions cap incorporates a margin of safety whereas the 2020 emissions limit will still be achieved even in the event that uncapped sectors do not fully meet their anticipated emission reductions. Emissions reductions will be achieved through regulatory requirements and the option to reduce emissions further or purchase allowances to cover compliance obligations. It is expected that emission reduction from this cap-and-trade program will account for a large portion of the reductions required by AB 32.

Table 4.5-4, AB 32 Scoping Plan Measures (SPMs), lists CARB's preliminary recommendations for achieving GHG emissions reductions under AB 32 along with a brief description of the requirements and applicability.

Table 4.5-4
AB 32 Scoping Plan Measures (SPMs)

Scoping Plan Measure	Description
SPM-1: California Cap-and-Trade Program linked to Western Climate Initiative	Implement a broad-based cap-and-trade program that links with other Western Climate Initiative Partner programs to create a regional market system. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms. Capped sectors include transportation, electricity, natural gas, and industry. Projected 2020 business-as-usual emissions are estimated at 512 $MTCO_2e$; preliminary 2020 emissions limit under cap-and-trade program are estimated at 365 $MTCO_2e$ (29 percent reduction).
SPM-2: California Light-Duty Vehicle GHG Standards	Implement adopted Pavley standards and planned second phase of the program. AB 32 states that if the Pavley standards (AB 1493) do not remain in effect, CARB shall implement equivalent or greater alternative regulations to control mobile sources.
SPM-3: Energy Efficiency	Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts. The Scoping Plan considers green building standards as a framework to achieve reductions in other sectors, such as electricity.
SPM-4: Renewables Portfolio Standard	Achieve 33 percent Renewables Portfolio Standard by both investor-owned and publicly owned utilities.
SPM-5: Low Carbon Fuel Standard	CARB identified the Low Carbon Fuel Standard as a Discrete Early Action item and the final regulation was adopted on April 23, 2009. In January 2007, Governor Schwarzenegger issued Executive Order S-1-07, which called for the reduction of the carbon intensity of California's transportation fuels by at least 10 percent by 2020.
SPM-6: Regional Transportation-Related Greenhouse Gas Targets	Develop regional greenhouse gas emissions reduction targets for passenger vehicles. SB 375 requires CARB to develop, in consultation with metropolitan planning organizations (MPOs), passenger vehicle greenhouse gas emissions reduction targets for 2020 and 2035 by September 30, 2010. SB 375 requires MPOs to prepare a sustainable communities strategy to reach the regional target provided by CARB.
SPM-7: Vehicle Efficiency Measures	Implement light-duty vehicle efficiency measures. CARB is pursuing fuel-efficient tire standards and measures to ensure properly inflated tires during vehicle servicing.
SPM-8: Goods Movement	Implement adopted regulations for port drayage trucks and the use of shore power for ships at berth. Improve efficiency in goods movement operations.
SPM-9: Million Solar Roofs Program	Install 3,000 MW of solar-electric capacity under California's existing solar programs.
SPM-10: Heavy/Medium-Duty Vehicles	Adopt heavy- and medium-duty vehicle and engine measures targeting aerodynamic efficiency, vehicle hybridization, and engine efficiency.

Scoping Plan Measure	Description
SPM-11: Industrial Emissions	Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.
SPM-12: High Speed Rail	Support implementation of a high-speed rail (HSR) system. This measure supports implementation of plans to construct and operate a HSR system between Northern and Southern California serving major metropolitan centers.
SPM-13: Green Building Strategy	Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.
SPM-14: High GWP Gases	Adopt measures to reduce high global warming potential gases. The Scoping Plan contains 6 measures to reduce high-GWP gases from mobile sources, consumer products, stationary sources, and semiconductor manufacturing.
SPM-15: Recycling and Waste	Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.
SPM-16: Sustainable Forests	Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation. The federal government and California's Board of Forestry and Fire Protection have the regulatory authority to implement the Forest Practice Act to provide for sustainable management practices. This measure is expected to play a greater role in the 2050 goals.
SPM-17: Water	Continue efficiency programs and use cleaner energy sources to move water. California will also establish a public goods charge for funding investments in water efficiency that will lead to as yet undetermined reductions in greenhouse gases.
SPM-18: Agriculture	In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020. Increase efficiency and encourage use of agricultural biomass for sustainable energy production. CARB has begun research on nitrogen fertilizers and will explore opportunities for emission reductions.

Source: California Air Resources Board, Climate Change Scoping Plan, (2008).

Senate Bill 97 (CEQA Guidelines)

In August 2007, the legislature enacted SB 97 (Dutton), which directed the Governor's Office of Planning and Research (OPR) to develop guidelines under the California Environmental Quality Act (CEQA) for the mitigation of greenhouse gas emissions. A number of actions have taken place under SB 97; they are discussed below.

OPR Climate Change Technical Advisory

On June 19, 2008, OPR issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents (OPR 2008). The advisory indicated that a project's GHG emissions, including those associated with vehicular traffic and construction activities, should be identified and estimated. The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures that are necessary to reduce GHG emissions to a less than significant level. The advisory did not recommend a specific threshold of significance. Instead, OPR requested that CARB recommend a method for setting thresholds that lead agencies may adopt (OPR 2009).

CEQA Guideline Amendments

In its work to formulate CEQA Guideline Amendments for GHG emissions, OPR submitted the *Proposed Draft CEQA Guideline Amendments for Greenhouse Gas Emissions* to the Secretary for Natural Resources on April 13, 2009. The Natural Resources Agency conducted formal rulemaking procedures in 2009 and adopted the CEQA Guideline Amendments on December 30, 2009. They became effective in March 2010.

Senate Bill 375

The California legislature passed SB 375 (Steinberg) on September 1, 2008. SB 375 requires CARB to set regional greenhouse gas reduction targets after consultation with local governments. The target must then be incorporated within that region's regional transportation plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy. SB 375 also requires each region's regional housing needs assessment (RHNA) to be adjusted based on the Sustainable Communities Strategy in its RTP. Additionally, SB 375 reforms the environmental review process to create incentives to implement the strategy, especially transit priority projects. The governor signed SB 375 into law on September 30, 2008.

On January 23, 2009, CARB appointed a Regional Targets Advisory Committee (RTAC) to provide recommendations and methodologies to be used in the target setting process. The RTAC provided its recommendations in a report to CARB on September 29, 2009. On August 9, 2010, CARB staff issued the *Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant To Senate Bill 375* (CARB 2010b). CARB staff proposed draft reduction targets for the four largest MPOs (Bay Area, Sacramento, Southern California, and San Diego) of 7 to 8 percent for 2020 and reduction targets between 13 to 16 percent for 2035. For the Bay Area, CARB established a draft target of 7 percent for 2020 and 15 percent for 2035. These targets were recommended to CARB by the Metropolitan Transportation Commission, which adopted the thresholds for its planning purposes on July 28, 2010. Of note, the proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and low carbon fuel standard regulations. CARB adopted the final targets on September 23, 2010.

4.5.3.4 Regional Programs

Bay Area Air Quality Management District

On June 2, 2010, the Bay Area Air Quality Management District (BAAQMD) adopted updated *CEQA Air Quality Guidelines*. These guidelines contain GHG operational emissions significance thresholds and recommended methodologies and models to be used for assessing the impacts of project-specific GHG emissions on global climate change (BAAQMD 2010a). The updated *CEQA Air Quality Guidelines* recommend that thresholds of significance for GHG emissions should be related to AB 32's GHG reduction goals or the state's strategy to achieve the 2020 GHG emissions limit, and also provide recommended measures for reducing GHG emissions from land use development projects and stationary sources.

The BAAQMD's *2010 CEQA Guidelines* were challenged by the California Building Industry Association. The Alameda County Superior Court recently ruled that the BAAQMD must set aside the approval of the guidelines and not approve any new guidelines until the District complies with CEQA. The BAAQMD accordingly is not recommending the use of the 2010 significance thresholds to determine the significance of air quality impacts. Instead, the BAAQMD recommends that the lead agency should "determine appropriate air quality thresholds of significance based on substantial evidence in the record" (BAAQMD 2012). The Court did not rule on or question the adequacy of the evidentiary basis supporting the significance thresholds that are contained in the *2010 CEQA Guidelines* and the BAAQMD-recommended impact assessment methodologies. Therefore, a lead agency has the discretion to use the significance thresholds and methodology for analyzing air quality impacts, including GHG impacts, under CEQA based on the evidence and technical studies supporting the guidelines.

4.5.3.5 Local Plans and Policies

San José/Evergreen Community College District

As the SJECCD is a state entity, the applicable local plan or policy would be a greenhouse gas reduction plan or a climate action plan adopted or proposed by the SJECCD. However, the SJECCD has not yet adopted or proposed any such plan. In the absence of an SJECCD adopted climate action plan, the BAAQMD's Clean Air Plan (CAP) - a multi-pollutant plan that includes GHG - would ordinarily be considered the applicable plan. However, the CAP specifically states that it is not to be considered a GHG reduction plan. Therefore, the applicable plan is AB 32. Furthermore, as the BAAQMD's CEQA guidance on GHG emissions is designed to meet AB 32 requirements in the region, AB 32 is the applicable plan.

City of San Jose GHG Reduction Strategy

The City of San José has adopted a GHG Reduction Strategy in conjunction with the recently adopted the Envision San José 2040 General Plan Update consistent with the implementation requirements of AB 32. The reduction strategy consists of specific measures and policies adopted by the City of San Jose for the purpose of reducing GHG emissions from built environments, transportation, waste, and other sectors. It also provides methods for evaluating the City's progress towards implementing the policies as well the requirements of AB 32, Executive Order S-3-05, and SB 375.

4.5.4 IMPACTS AND MITIGATION MEASURES

4.5.4.1 Significance Criteria

The impacts related to GHG emissions resulting from the implementation of the 2025 Updated FMP would be considered significant if they would exceed the following significance criteria, in accordance with Appendix G of the *2013 State CEQA Guidelines*:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The amended *2013 State CEQA Guidelines* include Section 15064.4, which states that, when making a determination of the significance of GHG emissions, a lead agency shall have discretion to determine whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use; and/or (2) Rely on a qualitative analysis or performance based standards.

Section 15064.4 also states that a lead agency should consider the following factors when assessing the significance of GHG emissions on the environment: (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

The first Appendix G criterion may be evaluated by performing a direct calculation of the GHG emissions resulting from the proposed project and comparing the emissions with the available significance thresholds. The BAAQMD put forth significance thresholds for operational GHG emissions in its *CEQA Air Quality Guidelines*. There are no significance thresholds for construction emissions of GHG, although the BAAQMD recommends that emissions be quantified, reported, and evaluated. The BAAQMD's thresholds of significance for operational-related GHG emissions are:

- Compliance with a Qualified GHG Reduction Strategy; or
- Annual emissions less than 4.6 MT CO_2e/service person/year (where service persons are residents plus employees and in the case of a college campus, also the student population).

The second Appendix G criterion may be evaluated by demonstrating compliance with plans, policies, or regulations adopted by local governments to curb GHG emissions. According to the Natural Resources Agency:

> *Provided that such plans contain specific requirements with respect to resources that are within the agency's jurisdiction to avoid or substantially lessen the agency's contributions to GHG emissions, both from its own projects and from private projects it has approved or will approve, such plans may be appropriately relied on in a cumulative impacts analysis (Natural Resources Agency 2009).*

Under CEQA, "the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data" (CEQA Section 15064). CEQA grants agencies the general authority to adopt criteria for determining whether a given impact is "significant" (California Public Resources Code Section 21082). When no guidance exists under CEQA, the agency may look to and assess general compliance with comparable regulatory schemes. As noted earlier, the BAAQMD's CAP represents a comparable regulatory scheme, but specifically states that it not to be considered a GHG reduction plan. As the basis for the BAAQMD's regulations to control GHG emissions is AB 32, AB 32 is considered the most relevant policy for the purposes of this analysis.

Based on the above, the significance of the proposed project's GHG emissions and impact on global climate change will be assessed based on the BAAQMD's GHG thresholds of significance and on the project features and GHG reduction measures that are consistent with the BAAQMD's recommended measures to reduce GHG emissions.

4.5.4.2 Issues Not Discussed Further

All of the CEQA checklist questions related to GHG emissions are analyzed below. None of the questions was screened out based on the analysis in the Initial Study.

4.5.4.3 Methodology

OPR in its Technical Advisory has recommended that GHG emissions from project-related traffic, energy consumption, water usage, and construction activities should be identified and estimated, to the extent that data is available to calculate such emissions. In addition, CARB staff has considered extensively the value of indirect emissions in a mandatory reporting program. CARB believes that indirect energy usage provides a more complete picture of the emissions footprint of a facility. According to CARB, "As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility" For these reasons, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements, and this analysis does so (CARB 2007).

The California Air Pollution Control Officers Association (CAPCOA) has stated that the information needed to characterize GHG emissions from manufacture, transport, and end-of-life of construction materials (often referred to as lifecycle emissions) would be speculative at the CEQA analysis level (CAPCOA 2008). Since accurate and reliable data do not exist for estimating lifecycle emissions for the proposed project, the analysis does not assess such lifecycle GHG emissions.

The data sources and tools used to evaluate the GHG impacts associated with operation of the proposed project include the URBEMIS2007 Environmental Management Software and information provided in the *Software User's Guide [for] URBEMIS2007 for Windows* (Rimpo and Associates 2008) and calculation algorithms supported by the sources listed above. The URBEMIS2007 model utilizes the EMFAC2007 emissions factor model for on-road motor vehicle sources and the OFFROAD2007 emissions factor model for off-road equipment. Site-specific or project-specific data were used in the URBEMIS2007 model where available. Where information was not available for the project, model default values were selected. The BAAQMD has produced an add-on model designed to be used in conjunction with URBEMIS2007, called the BAAQMD Greenhouse Gas Model (BGM). The BGM uses URBEMIS2007 input files to calculate GHG emissions from a project based on Bay Area-specific data and assumptions, and also includes corrections for future applicable regulatory requirements, such as the Low Carbon Fuel Standard, the Renewable Fuels Portfolio standards, and others. The URBEMIS2007 files used for estimation of the air quality impacts associated with this project were used with the BGM to produce both the current and future GHG emissions estimates for the proposed project.

Additional sources consulted for this analysis include data and guidance from the US EPA, the US Energy Information Administration, CARB, the California Energy Commission, the California Climate Action Registry's *General Reporting Protocol*, and other GHG and global climate change data as referenced. Emission calculations conducted for the proposed project are contained in **Appendix 4.5**.

4.5.4.4 Project Impacts and Mitigation Measures

The proposed project consists of the implementation of the 2025 Updated FMP. At full development under the plan, the Campus would ultimately support (1) a total population of 14,840 students, and (2) 355,150 square feet of campus buildings, in contrast to the current 11,980 students and 344,900 square feet of campus buildings.

Impact GHG-1: **Implementation of the 2025 Updated FMP would result in a reduction of GHG emissions. Therefore, the emissions would not result in a significant impact on the environment.**

Level of Significance: Less than significant

Implementation of the 2025 Updated FMP would result in the reduction of GHG emissions, both directly and indirectly compared to existing conditions. Even though there would be a slight increase in building space on campus, GHG emissions would be reduced due to the replacement of older, less efficient buildings with newer, more efficient buildings constructed according to the requirements of the California Green Building Standards and certified as LEED silver. This reduction in emissions from buildings would outweigh the increase in emissions from the increased student population and commute traffic for a net overall reduction.

Construction GHG Emissions

During construction, the proposed project would directly contribute to climate change through its contribution of GHGs from the exhaust of construction equipment and construction workers' vehicles. The manufacture of construction materials used by the project would indirectly contribute to climate change (upstream emission source). Upstream emissions are emissions that are generated during the manufacture of products used for construction (e.g., cement, steel, and transport of materials to the region). The upstream GHG emissions for this project, which may also include perfluorocarbons and sulfur hexafluoride, are not estimated in this impact analysis because they are not within the control of the District and the lack of data precludes their quantification without speculation.

The BAAQMD does not provide any guidance on evaluation of the impacts from GHG emissions from construction activities for a project-level analysis. It recommends that GHG emissions from construction be estimated and reported. Using the methodology described above, CO_2 emissions associated with construction activities are approximately 3,703 metric tons. These emissions would occur over the 12-year construction period and the annual emissions would be about 309 metric tons. This annual amount is too small to have a measureable effect on global climate. Therefore, the impact from construction emissions would be less than significant.

Operational GHG Emissions

At full buildout, the proposed project would generate direct operational emissions of GHGs. These emissions—primarily CO_2, CH_4, and N_2O—would be the result of fuel combustion from building heating systems and motor vehicles. Building and motor vehicle air conditioning systems may use HFCs (and HCFCs and CFCs to the extent that they have not been completely phased out at later dates); however, these emissions are not quantified since they would only occur through accidental leaks. It is not possible to estimate the frequency of accidental leaks without some level of speculation. It should be noted that CARB has drafted a proposed "Regulation for Management of High Global Warming Potential Refrigerants" that would reduce emissions of these refrigerants from stationary refrigeration and air-conditioning systems by requiring persons subject to the rule to reclaim, recover, or recycle refrigerant and to properly repair or replace faulty refrigeration and air conditioning equipment (CARB 2009).

Non-Stationary Source Emissions

Non-stationary source emissions from motor vehicles were calculated using the BGM, which uses URBEMIS2007 files in conjunction with emission and consumption factors specific to the Bay Area to calculate greenhouse gas emissions from projects within the BAAQMD's jurisdiction. The BGM is the BAAQMD's preferred method for estimating operational GHG emissions. For the purposes of estimating GHG emissions with BGM, the proposed project was assumed to fall under the URBEMIS2007 land use category of Junior College (2 Year). Area source emissions for the current and proposed scenarios were based on default assumptions provided in URBEMIS and BGM. Mobile emissions were calculated using trip rates provided in the traffic study (Fehr & Peers 2012). The trip rates provided were on a per student basis, while URBEMIS calculates emissions on a square footage of building space basis. Consequently trip rates were adjusted in URBEMIS to correct for this. Trip rates for the 2025 scenario at full buildout were further modified to correct for the reduction in building space but increase in student population. Since

URBEMIS uses trip rates per square foot of campus building space this results in a reduction in trips if the building space is reduced. However, it is assumed that an increase in students will result in an increase in trips. Consequently, the trip rate for the 2025 scenario was increased to remain consistent with the number of students that would be attending the college.

Stationary Source Emissions

Stationary sources include area sources (landscaping, hearths and fireplaces), natural gas and electricity consumption, water use and wastewater generation, and solid waste disposal. Emissions from these sources were also conducted using the BGM. Electricity and natural gas consumption, water and wastewater generation, and solid waste estimates were based on a Junior College (two Year) land-use type.

Campus operations also include boilers and emergency generators. The campus currently has two boilers running on natural gas at a rating of 8.3 million British thermal units (MMBTU) per hour each, with one new boiler proposed. The campus also currently has seven diesel-fueled emergency generators at present, and would add three more diesel-fueled emergency generators under the proposed project. The rating of the new generators is not currently known, so they are assumed to be similar to the existing generators at the EVC campus which are primarily small 25 kW units. GHG emissions from the boilers and generators were calculated using emission factors from the California Climate Action Registry's *General Reporting Protocol* (CCAR 2009).

Table 4.5-5, Estimated Operational GHG Emissions, shows a summary of total estimated GHG emissions from operation of the existing campus as well as the proposed project and compares the net difference to the BAAQMD significance thresholds. The service person (SP) figure for this analysis was assumed to be the additional number of students associated with the proposed project, or about 2,860 persons.

As shown in **Table 4.5-5**, the proposed project's operational emissions would not exceed the threshold of 4.6 MTCO$_2$e/SP and the impact from the project's operation emissions would be less than significant.

Mitigation Measure: No mitigation is required.

Table 4.5-5
Estimated Operational GHG Emissions

GHG Emissions Source	Emissions (Metric Tons CO_2e/year)
Existing Campus	
Mobile Sources (Transportation)	18,628
Area Sources	1
Electricity	1,602
Natural Gas	766
Water & Wastewater	24
Solid Waste	289
Boilers	4,351
Emergency Generators	1
Total Existing Operational GHG Emissions	**25,662**
Proposed Campus	
Mobile Sources (Transportation)	18,146
Area Sources	1
Electricity	1,650
Natural Gas	789
Water & Wastewater	25
Solid Waste	298
Boilers	6,527
Emergency generators	1
Total Proposed Operational GHG Emissions	**27,437**
Total Net Operational GHG Emissions	**1,775**
Total Net Operational GHG Emissions per SP	**0.62**
BAAQMD Threshold	**4.6**
Exceeds Threshold?	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in ***Appendix 4.5****.*

Impact GHG-2: Implementation of the 2025 Updated FMP would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Level of Significance: Less than significant

Implementation of the 2025 Updated FMP would result in a significant impact related to GHG emissions if the FMP were in conflict with an applicable plan, policy, or regulation concerning greenhouse gas reductions. AB 32 is the relevant regulation with which to review compliance.

AB 32 is the basis for reduction of GHG emissions in California. Local agencies such as the BAAQMD base their planning and regulations on the requirements included in AB 32, which include a reduction of GHG emissions to 1990 rates by 2020. The BAAQMD put forth GHG significance thresholds specifically designed to meet AB 32 requirements within its jurisdiction, and so plans meeting those thresholds can be assumed to meet the requirements of AB 32. As the proposed project is well under the BAAQMD threshold for GHG emissions, it is in compliance with AB 32.

The City of San Jose has also produced a Greenhouse Gas Reduction Strategy as part of its Envision San Jose 2040 General Plan. The specific strategies and benchmarks are detailed in Appendix K of the 2040 General Plan EIR. The strategies and measures presented there are similar to measures included in the 2025 Updated FMP. The City has also developed efficiency targets in order to evaluate the effectiveness of the reduction strategy. These targets are similar to those developed by the BAAQMD and used as significance thresholds in this analysis, and are 6.60 MT CO_2e/SP by 2020, 3.04 MT CO_2e/SP by 2035, and 0.90 MT CO_2e/SP by 2050. As shown in **Table 4.5-5,** the proposed project is well below these targets, and is therefore in conformance with the City's GHG reduction strategy.

Furthermore, the proposed project includes a number of design features with the specific intention of increased efficiency and reduced GHG emissions. This is reflected by listing sustainability among the principles developed as part of the planning process. Features included to address this principle include:

- Improved pedestrian access and use
- Highly efficient HVAC systems
- Targeting LEED certification for the Fitness Center
- Improved tree cover to reduce heat island effects
- Water efficient and drought tolerant landscaping
- Solar energy generation

The proposed project will not conflict with any plans, policies, or regulations for reducing GHG emissions, and the impact would be less than significant.

Mitigation Measure: No mitigation is required.

4.5.4.5 Cumulative Impacts and Mitigation Measures

As the impact from a project's GHG emissions is essentially a cumulative impact, the analysis presented in the section provides an adequate analysis of the proposed project's cumulative impact related to GHG emissions. No further analysis is required.

4.5.5 REFERENCES

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4.6 HYDROLOGY AND WATER QUALITY

4.6.1 INTRODUCTION

This section describes existing hydrologic conditions at the Evergreen Valley College (EVC) campus site and in its vicinity and analyzes the potential for campus development under the 2025 Updated Facilities Master Plan (FMP) to affect water quality, groundwater supplies, groundwater recharge, site drainage, and flooding. The two minor projects proposed by the campus would install prefabricated metal covers over the existing corporation yard and along the edge of an existing parking lot, and bleachers on the eastern side of the soccer field. These improvements would have no effect on hydrology and water quality, and are not discussed further in this section.

No public and agency comments related to hydrology and water quality were received in response to the Notice of Preparation (NOP) issued for this EIR.

4.6.2 ENVIRONMENTAL SETTING

4.6.2.1 Study Area

The study area for direct impacts on hydrology and water quality includes the EVC campus. The EVC campus covers a total of 158 acres, including San José/Evergreen Community College District (SJECCD) offices and facilities. Excluding SJECCD offices and facilities, the campus includes a total of 123 acres; of these, approximately 74 acres are developed and about 49 acres are undeveloped.

4.6.2.2 Regional Setting

According to the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), the campus is located within the Santa Clara Watershed. Within the Santa Clara Watershed the campus region can be further identified as being in the Coyote Creek Watershed, the Silver Creek Watershed, and the Thompson Creek Watershed (SJECCD 2001).

The campus property is adjacent to or near three creek channels: Evergreen Creek on the northern boundary of the property, Yerba Buena Creek to the south of the property across Yerba Buena Road, and Thompson Creek to the west of the property across San Felipe Road. Evergreen and Yerba Buena Creeks originate in the San Felipe Hills to the east of the campus and flow westward, feeding into the northwestern-flowing Thompson Creek. Thompson Creek then drains into Lower Silver Creek as it flows north into Coyote Creek and toward the San Francisco Bay (SJECCD 2001).

Portions of the campus property are within three separate sub-watersheds in the Thompson Creek Watershed: the Evergreen Creek Watershed, the Yerba Buena Creek Watershed, and the Central Campus Watershed. The Evergreen Creek Watershed includes the northern 12.5 percent of the campus. Only a small section of this 852-acre watershed is on the campus property, with the majority to the east and uphill in the San Felipe Hills. The campus lies within the furthest downstream section of the watershed (SJECCD 2001).

The southern portion of campus is in the downstream portion of the Yerba Buena Creek Watershed. The 1,200-acre watershed, which is comprised of Yerba Buena Creek and its tributaries, also extends east into the San Felipe Hills. Only a small portion of this watershed, which covers approximately 4.5 percent of the campus, is on the campus property. The Evergreen Creek and Yerba Buena Creek watersheds have an ultimate drainage direction to the west and discharge into Thompson Creek (SJECCD 2001).

The major portion of the EVC campus (83 percent) is within the Central Campus Watershed, a small section of the Thompson Creek Watershed, which drains into Thompson Creek. Since only a small area of the Thompson Creek Watershed is of interest for this analysis, it will be referred to in the remainder of this section as the Central Campus Watershed (SJECCD 2001).

In general, the eastern portions of these three watersheds are hilly, sparsely developed, and moderately to heavily vegetated with trees, brush and grass. The western portions are moderately sloped, moderately developed, and moderately vegetated with trees, brush, and grass. The lower western section of the Yerba Buena Creek Watershed is heavily vegetated with large trees and grasses (SJECCD 2001).

4.6.2.3 Site Surface Hydrology

Surface drainage within the EVC campus flows to the three above-mentioned watersheds in allotments that are roughly proportional to the area of these watersheds within the campus. Due to the existence of underground drainage pipes (i.e., storm drains), many of which are not accounted for or not accurately mapped on the existing utilities plan, it is difficult to discern the exact location of watershed boundaries within the campus (SJECCD 2001).

4.6.2.4 Flooding and Drainage Problems

Figure 4.6-1, Flood Insurance Rate Map, shows the Federal Emergency Management Administration (FEMA) Flood Insurance Rate Map for the campus and downstream areas. According to the map, the project site is adjacent to mapped 100-year flood plains. The Yerba Buena Creek channel (to the south across Yerba Buena Road) and the Thompson Creek channel (to the west across San Felipe Road) are depicted on the FEMA map as 100-year flood areas. The flood boundary of concern surrounding Thompson Creek is completely contained in the channel. The Yerba Buena Creek flood area appears not to extend past the banks of the channel, but it is not channel-contained. The EVC campus is identified as Zone D, which is defined as an area with undetermined flooding, but where flooding is possible (FEMA 2009).

The existing surface drainage features at the campus are generally adequate to handle typical storm flows and are in good condition. Buildings are equipped with roof gutters and down spouts that flow to surface drainage gutters and then to storm drain connections. Existing grades promote surface sheet flow toward drop inlets and collection basins that then convey water by subsurface reinforced concrete pipe through the storm drain system. Evergreen Lake, a manmade lake in the southeast portion of campus, serves as a retention pond for overland runoff. The storm drain system discharges off campus into Yerba Buena Creek at two locations: one location is south of Evergreen Lake and the second is at the southeast corner of the campus property. Drainage pipe outfalls into the creek have sacked concrete and rip-rap protecting the slopes (SJECCD 2001).

4.6.2.5 Soil and Erosion Hazards

Surface soils in the southern portion of the campus are classified as Pleasanton loam, 0 to 2 percent slope (PoE), and surface soils in the majority of the northern portion of the campus are classified as Zamora clay loam, 0 to 2 percent slope (ZbA). For both of these soil types, permeability is moderately slow, runoff is very slow, and the hazard of erosion is none to slight (SJECCD 2001).

Surface soils in the northeastern portion of the campus are classified as Positas clay loam, 2 to 9 percent slope (PrC), and Altamont clay, 15 to 30 percent slope (AcE2). For Positas loams, runoff is slow, and the hazard of erosion is slight where the soil is bare. For Altamont clays, runoff is medium to rapid, and the hazard of erosion is medium to high (SJECCD 2001).

4.6.2.6 Groundwater

The campus is underlain by the Santa Clara groundwater basin. Previous shallow borings investigations on campus did not encounter any groundwater. Similarly, reconnaissance studies previously conducted on campus did not find any indication of spring lines, ephemeral watercourses, or shallow/perched water tables (SJECCD 2001).

4.6.2.7 Water Quality

The EVC campus is developed with buildings and other structures, roadways, and parking lots. Typical pollutants from this type of development (such as chemicals from landscaped areas and oil and grease from vehicle use) could be present in campus runoff. Other existing sources of pollutants that may be present in campus runoff include atmospheric fallout, land erosion, and runoff from pavement. These sources are discussed later in this section (SJECCD 2001).

4.6.3 REGULATORY SETTING

This section describes the federal, state, and local regulatory context to be considered for the expansion of the EVC campus, and addresses hydrology and water quality concerns, including development strategies, stormwater pollution prevention plans, and stormwater management practices.

4.6.3.1 Federal and State Regulations

Federal Water Pollution Control Act

The Federal Water Pollution Control Act of 1972, often referred to as the Clean Water Act (CWA), is the nation's primary law for regulating discharges of pollutants into waters of the United States. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The regulations adopted pursuant to the CWA deal extensively with the permitting of actions in waters of the United States, including wetlands. CWA's statutory sections and implementing regulations provide more specific protection for riparian and wetland habitats than any other federal law. The US Environmental Protection Agency (US EPA) has primary authority under the CWA to set standards for water quality and for effluents, but the US Army Corps of Engineers (USACE) has primary responsibility for permitting the discharge of dredge or fill materials into streams, rivers, and wetlands.

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

513 Base Flood Elevation line and value; elevation in feet*

Project Site Boundary

SOURCE: Federal Emergency Management Agency, May 2009

FIGURE **4.6-1**

Flood Insurance Rate Map

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California Porter-Cologne Act

The California Porter-Cologne Act of 1970 is largely responsible for creating the state's extensive regulatory program for water pollution control. Preparation of water management plans has been delegated to the individual states by the US EPA. Pursuant to the Porter-Cologne Act, the responsibility for protection of water quality in California rests with the State Water Resources Control Board (SWRCB). The SWRCB in turn has delegated to the nine Regional Water Quality Control Boards the authority to regulate the nine hydrologic basins in the state. The Porter-Cologne Act gives the SWRCB and Regional Water Quality Control Boards broad powers to protect water quality by regulating waste discharges to water and land by requiring cleanup of hazardous conditions.

The State Water Board provides oversight and coordination while the Regional Boards guide and regulate water quality in streams and aquifers through development of Water Quality Control Plans, or Basin Plans. The EVC campus drains to waters regulated by the Region 2 (San Francisco Bay) Basin Plan, which was approved in 1995 and updated in 2011. The latest version of the Basin Plan is effective as of December 31, 2011.

Beneficial uses are designated in the Basin Plan for local aquifers, streams, marshes, and rivers, as well as water quality objectives that must be met to protect these uses. Although beneficial uses have not been specifically designated for Evergreen Creek, Yerba Buena Creek, and Thompson Creek, they have been designated for San Francisco Bay, to which these bodies discharge, and it is the local Regional Board policy to protect uses that might reasonably apply to the tributaries of listed waters. Beneficial uses designated for the San Francisco Bay include ocean, commercial, and sport fishing; estuarine habitat; industrial service supply; migration of aquatic organisms; navigation; industrial process supply; habitat for Rare, Threatened, or Endangered species; contact water recreation; noncontact water recreation; shellfish harvesting; fish spawning; and wildlife habitat.

National Pollutant Discharge Elimination System

As authorized by the CWA, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The US EPA has delegated responsibility for implementation of the NPDES program to SWRCB and the RWQCBs.

Construction activity disturbing more than 1 acre of land is currently subject to an NPDES General Permit issued under Water Quality Order No. 99-08-DWQ. Permittees enrolled under this permit are required to file a notice of intent with the RWQCB and to develop and implement a storm water pollution prevention plan (SWPPP) which includes best management practices (BMPs). Permittees must perform seasonal monitoring of storm water discharges and to submit annual reports until construction is completed. The intent of the General Permit program is to minimize erosion and sediment runoff as well as to prohibit the discharge of any pollutants in storm water runoff through the use of BMPs. Upon completion of construction, the General Permit is cancelled by filing a notice of termination.

In 2009, the San Francisco Bay RWQCB issued a regional NPDES permit (NPDES Permit Order R2-2009-0074, NPDES Permit No. CAS612008) for stormwater consolidating requirements for all Bay Area municipalities and flood control agencies that discharge directly to San Francisco Bay. Under the Municipal Regional Stormwater NPDES Permit, development projects that create, add, or replace 10,000 square feet or more must (1) include stormwater treatment measures; (2) ensure that the treatment measures be designed to meet hydraulic sizing design criteria as required in Provision C.3 of the Municipal Regional Stormwater NPDES Permit; and (3) ensure that stormwater treatment measures are properly installed, operated, and maintained.

4.6.3.2 Local Regulations

Envision San José 2040 General Plan

The proposed project would be located on land owned and operated by the San José/Evergreen Community College District (SJECCD). As a state entity, SJECCD is exempted by the state constitution from compliance with local land use regulations, including general plans and zoning. However, SJECCD seeks to cooperate with local jurisdictions to reduce any physical consequences of potential land use conflicts to the extent feasible. Goals and policies from the Envision San José 2040 General Plan (2011) that relate to hydrology and water quality are provided below.

Water Resources

Policy ER-9.1 In consultation with the Santa Clara Valley Water District, other public agencies and the SCVWDs Water Resources Protection Guidelines and Standards (2006 or as amended), restrict or carefully regulate public and private development in streamside areas so as to protect and preserve the health, function and stability of streams and stream corridors.

Policy ER-9.5 Protect groundwater recharge areas, particularly creeks and riparian corridors.

Flood Hazards

Policy EC-5.1	The City shall require evaluation of flood hazards prior to approval of development projects within a Federal Emergency Management Agency (FEMA) designated floodplain. Review new development and substantial improvements to existing structures to ensure it is designed to provide protection from flooding with a 1 percent annual chance of occurrence, commonly referred to as the "100-year" flood or whatever designated benchmark FEMA may adopt in the future. New development should also provide protection for less frequent flood events when required by the state.
Policy EC-5.2	Allow development only when adequate mitigation measures are incorporated into the project design to prevent or minimize siltation of streams, flood protection ponds, and reservoirs.

4.6.4 IMPACTS AND MITIGATION MEASURES

4.6.4.1 Standards of Significance

In accordance with Appendix G of the *2013 California Environmental Quality Act (CEQA) Guidelines*, the impact of the proposed project on hydrology and water quality would be considered significant 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 level;
- 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-site or off-site;
- 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 rate or amount of surface runoff in a manner that would result in flooding on-site or off-site;
- create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems, or provide substantial additional sources of polluted runoff;

- 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 within a 100-year flood hazard area structures that would impede or redirect flood flows; or
- 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 dam or inundation by seiche, tsunami, or mudflow.

4.6.4.2 Issues Not Discussed Further

The analysis in the Initial Study prepared for the proposed project and circulated with the NOP concluded that further analysis of the following issues was not required in the EIR.

- Violate any water quality standards or waste discharge requirements.
- Otherwise substantially degrade water quality.

During construction of facilities identified in the 2025 Updated FMP, there is a potential for increased erosion, sedimentation, and discharge of polluted runoff from the site. However, the construction contractor would be required to implement a SWPPP including erosion and pollution control measures in compliance with NPDES regulations, or implement an erosion control plan as required by campus procedures to control increases in off-site sediment delivery. The impact to water quality from construction activities would therefore be less than significant.

The development of facilities identified in the 2025 Updated FMP would increase the amount of impervious surfaces on the campus and would increase the amount of runoff generated on the campus. During operation, all site drainage would be routed to the City's storm drain system, which would then discharge the flow to Thompson Creek. This runoff is subject to the conditions of the Municipal Regional Stormwater NPDES Permit No. CAS612008 for the San Francisco Bay Region. This permit requires permittees to comply with the discharge prohibitions and receiving water limitations through the timely implementation of control measures and other actions as specified in the permit (San Francisco Bay RWQCB, 2009). Future development on the campus would be required to comply with applicable NPDES requirements for stormwater quality. Therefore, implementation of the 2025 Updated FMP would not result in any direct or indirect discharges that would violate water quality standards or waste discharge requirements. Impacts during operation would be less than significant with regard to this criterion.

- 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 level.

The campus is underlain by the Santa Clara groundwater basin. However, the campus obtains its potable water supply from surface water supplies provided through the local water retailer. Therefore, the increase in potable water use on the campus from implementation of the 2025 Updated FMP would not affect groundwater supplies. Natural recharge in the basin occurs principally as infiltration in streambeds that exit the upland areas within the drainage basin and from direct percolation of precipitation that falls on the basin floor (DWR 2003). Implementation of the 2025 Updated FMP would increase the amount of impervious surface on the campus. However, as this increase in impervious surface would be small and would affect a tiny fraction of the groundwater basin, it would have a minimal effect on groundwater recharge. Impacts would be less than significant with regard to this criterion.

- 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 which would result in substantial erosion or siltation on- or off-site.

While the erosion potential of a majority of soils on the campus is none to slight, the erosion potential of soils in the northeastern portion of the campus is medium to high. Storm water generated by future development under the 2025 Updated FMP would be directed toward existing storm drainage facilities serving the campus. As discussed above, each individual project on the campus would be required to control soil erosion and siltation during construction through either the preparation of a SWPPP if the project site is 1 acre or more in size or the preparation of an erosion control plan if the project is less than 1 acre in size. Implementation of the SWPPP would reduce the potential for erosion on the construction sites and minimize the discharge of sediment into the storm drain system. Once the new or replacement facilities are constructed, the project sites would be under impervious surfaces (buildings, pavement, etc.) or would be landscaped. This would minimize the potential for erosion and sedimentation in the long term. In addition, while the implementation of the 2025 Updated FMP would increase the amount of impervious surface on the campus, this increase in impervious surface would be small. As a result, the amount of additional runoff entering the City's storm drain system would not be substantial enough to result in off-site erosion or siltation in downstream locations. Therefore, this impact is considered less than significant.

- 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 within a 100-year flood hazard area structures that would impede or redirect flood flows.

The campus is not located within a 100-year flood zone. The campus is located within Flood Zone D, which is defined as an area with undetermined flooding, but where flooding is possible. There are no existing residential uses on the campus and no residential uses are included in the 2025 Updated FMP. As a result, implementation of the 2025 Updated FMP would not place housing or structures within an area at risk of flood flows. There would be no impact with regard to this criterion.

- 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 dam or inundation by seiche, tsunami, or mudflow.

The campus is not located within the dam inundation area for the Cherry Flats Reservoir (ABAG 1995). Therefore, implementation of the 2025 Updated FMP would not 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 dam. There would be no impact with regard to this criterion.

The campus is located well inland from the San Francisco Bay and no large bodies of water susceptible to seiche are located near the campus. As a result, the campus is not at risk of seiche or tsunami inundation. Because of the relatively flat topography of the campus, there is no substantial risk of debris flow or mudflow. Impacts would be less than significant with regard to this criterion.

4.6.4.3 Methodology

The potential impacts from the development of the EVC campus under the 2025 Updated FMP on hydrology were assessed quantitatively by making a comparison between the proposed land use plan for the 2025 Updated FMP and the current land use plan for the EVC campus. The assessment evaluates whether the proposed project could result in an adverse change in hydrologic conditions that could result in on- or off-site flooding.

4.6.4.4 Project Impacts and Mitigation Measures

Impact HYDRO-1: **Implementation of the 2025 Updated FMP would not substantially alter the existing drainage patterns in a way that would result in on- or off-site flooding.**

Level of Significance: Less than significant

Although the EVC campus is generally developed, implementation of the 2025 Updated FMP would increase the area of impervious surfaces within the campus, resulting in increased surface runoff. There are currently 74 acres of impervious surfaces on the EVC campus. At buildout of the 2025 Updated FMP, impervious surfaces on the campus would total about 80 acres, which represents an 8 percent increase over current conditions. As discussed above, under the Municipal Regional Stormwater NPDES Permit, development projects that create, add, or replace 10,000 square feet or more of impervious surface area are required to (1) include stormwater treatment measures; (2) ensure that the treatment measures be designed to meet hydraulic sizing design criteria as required in Provision C.3 of the Municipal Regional Stormwater NPDES Permit; and (3) ensure that stormwater treatment measures are properly installed, operated, and maintained. All projects built on campus under the 2025 Updated FMP would adhere to NPDES permit requirements and future stormwater flows on campus would not substantially exceed the flow rate of existing stormwater flows on campus and thus avoided on- or off-site flooding. This impact is less than significant.

Mitigation Measure: No mitigation is required.

4.6.4.5 Cumulative Impacts and Mitigation Measures

Implementation of the 2025 Updated FMP, in conjunction with other reasonably foreseeable development, would increase the quantity of impervious surfaces in the campus vicinity. As described under **Impact HYDRO-1,** compliance with NPDES requirements would result in a less than significant impact with regard to on- or off-site flooding. Similarly, all new development or redevelopment in the City of San José would be required to comply with existing stormwater regulations, which control site runoff during construction and operation. The cumulative impact would therefore be less than significant.

4.6.5 REFERENCES

Association of Bay Area Governments (ABAG). 1995. Dam Failure Inundation Hazard Map for San José. Available at: http://www.abag.ca.gov/cgi-bin/pickdamx.pl.

California Department of Water Resources (DWR). 2003. *California's Groundwater - Bulletin 118, Update 2003.*

City of San José. 2011. *Envision San José 2040 General Plan*. Adopted November 1.

Federal Emergency Management Agency (FEMA). 2009. Flood Insurance Rate Map No. 06085C0267H for Santa Clara County, California. May 18.

San Francisco Bay Regional Water Quality Control Board (RWQCB). 2009. California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order R2-2009-0074, NPDES Permit No. CAS612008.

San José/Evergreen Community College District (SJECCD). 2001. Environmental Impact Report for the Evergreen Valley College Facilities Master Plan. Prepared by Impact Sciences, Inc.

4.7 LAND USE AND PLANNING

4.7.1 INTRODUCTION

This section describes existing and planned land uses at the Evergreen Valley College (EVC) campus and analyzes the impact of implementation of the 2025 Updated Facilities Master Plan (FMP) on land uses on the campus and in the surrounding area. The relationship of the 2025 Updated FMP to regional plans is also discussed.

Two comments related to land use and planning received in response to the Notice of Preparation (NOP) issued for this EIR requested that the Draft EIR should discuss how the 2025 Updated FMP will conform to the City of San José's Envision San José 2040 General Plan and Riparian Corridor Policy Study. These comments were considered in the analysis presented below.

4.7.2 ENVIRONMENTAL SETTING

4.7.2.1 Study Area

The EVC campus and areas within a 0.5-mile radius of the campus constitute the study area for the land use and planning analysis. The EVC campus includes a total of approximately 158 acres.

4.7.2.2 Campus Land Use

The campus site is located near the eastern boundary of the City of San José, a large urbanized city located in the eastern portion of the Santa Clara Valley. The campus is partially developed and is composed of approximately 40 buildings that were built between the 1970s and the present. The campus includes academic and administrative buildings; a library; athletic facilities and playfields, quads and courtyards; and surface parking lots. The buildings comprise approximately 344,900 square feet of space and range in height from one to three stories.

The generalized pattern of existing land uses on the EVC campus is shown in **Figure 3.0-9**. As shown, instructional uses generally occupy the eastern portion of the campus. Physical education and athletic facilities generally occupy the southern and eastern parts of the campus. District facilities occupy the western portion of the campus. Surface parking is mainly located at the eastern and western ends of the campus with one parking lot located along the southern edge of the campus.

Instructional and Supporting Uses

As shown on **Figure 3.0-9,** buildings that are categorized as instructional include the Cedro Building, Roble Building, Acacia Building, Sequoia Building, Sequoia Lecture Hall, Performing Arts Building, Visual Arts Building, and a number of portable buildings (Cedro, 100s, 200s). Instructional uses are supported by the Library/Educational Tech Center, Student Services Center, Gullo Student Center and other supporting uses such as the Central Energy Plant. Campus administrative functions are located in a portion of the Student Services Center.

Physical Education and Athletic Facilities

As shown in **Figure 3.0-9,** existing physical education and athletic facilities include the Physical Education Building, multi-use athletic field, softball field, tennis courts, soccer field, and racquet ball courts. In addition to these facilities, existing quads and courtyards are located throughout the campus. An amphitheater and a man-made lake are located in the southeastern portion of campus.

District Facilities

Other uses on the campus that contribute to the educational mission of the college include San José/Evergreen Community College District (SJECCD) facilities such as the District Office, Criminal Justice Training Center and District Warehouse.

Parking

The EVC campus currently provides approximately 2,700 parking spaces for students, faculty, staff, and SJECCD-owned vehicles. As shown in **Figure 3.0-9**, primary parking facilities for faculty, staff, students, and visitors are large surface lots located on the eastern and western edges of the campus with one parking lot located along the southern edge of the campus.

4.7.2.3 Existing Adjacent Land Uses

Surrounding land uses are shown in **Figure 3.0-2**. As shown, nearby uses include residential uses to the north beyond Evergreen Creek and Falls Creek Drive, to the west beyond San Felipe Road and Thompson Creek, and to the south beyond Yerba Buena Road and Yerba Buena Creek. Other nearby uses include Evergreen Park and a church to the south, Montgomery Hill Park, and undeveloped lands to the east, and an orchard and an assisted-living facility to the west.

4.7.3 REGULATORY SETTING

As a state entity, SJECCD is exempted by the state constitution from compliance with local land use regulations, including general plans and zoning. However, SJECCD seeks to cooperate with local jurisdictions to reduce any physical consequences of potential land use conflicts to the extent feasible and has a long tradition of working voluntarily and cooperatively with the City of San José and other local and regional agencies. It is District policy to seek consistency with regional and local plans and policies where feasible. Therefore, in addition to regional plans that are applicable to the proposed project, a summary of the Envision San José 2040 General Plan is presented below and the proposed project's consistency with these plans is evaluated later in this section.

4.7.3.1 Regional Plans

Bay Area 2010 Clean Air Plan

The Bay Area Air Quality Management District (BAAQMD) is the regional agency that regulates sources of air pollutants within the nine-county Bay Area region. The BAAQMD prepares clean air plans as required under state and federal law. The Bay Area 2010 Clean Air Plan (CAP) provides a comprehensive plan to improve Bay Area air quality and protect public health. The 2010 CAP defines a control strategy that the District and its partners will implement to: (1) reduce emissions and decrease ambient concentrations of harmful pollutants; (2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily impacted by air pollution; and (3) reduce greenhouse gas emissions to protect global climate.

Santa Clara County Congestion Management Program

The Valley Transportation Authority (VTA) oversees the Santa Clara County Congestion Management Program (CMP), which was last updated in June 2003. State legislation requires that all urbanized counties in California prepare a CMP to obtain each county's share of gas tax revenue. The CMP legislation requires that each CMP contain five mandatory elements: (1) a system definition and traffic Level of Service (LOS) standard element; (2) a multimodal performance measures element; (3) a transportation demand management and trip reduction element; (4) a land use impact analysis program element; and (5) a capital improvement program element. In addition to these mandated elements, the Santa Clara County CMP includes three additional elements: a countywide transportation model and data base element, an annual monitoring and conformance element, and a deficiency plan element.

San Francisco Bay Regional Water Quality Control Plan

The San Francisco Regional Water Quality Control Board (San Francisco RWQCB) regulates water quality in the San Francisco Bay Area region. The San Francisco RWQCB regulates surface water quality in the Bay Area via the Regional Water Quality Control Plan (Basin Plan), which was last amended in December 2010. The Basin Plan lists the beneficial uses which the San Francisco RWQCB has identified for local aquifers, streams, marshes, rivers, and the Bay, as well as water quality objectives, and criteria that must be met to protect these uses. The San Francisco RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to control water quality and protect beneficial uses. These can include permits for "point sources" such as wastewater treatment plants or "non-point sources" such as the urban runoff discharged by a City's stormwater drainage system.

4.7.3.2 Local Plans

Envision San José 2040 General Plan

The Envision San José 2040 General Plan contains a comprehensive set of goals, objectives, policies, and programs to guide future growth and development in the City of San José. In order to meet the City's social, economic, and environmental goals, the 2040 General Plan includes a Land Use/Transportation Diagram as well as text which sets forth the major strategies, goals, and policies. The land use designation for the campus on the General Plan Land Use/Transportation Diagram is Public/Quasi Public (City of San José 2011).

Riparian Corridor Policy Study

In May 1994, the San Jose City Council adopted the Riparian Corridor Policy Study to establish detailed direction on how to implement the Riparian Corridors and Upland Wetlands Policies included in the San Jose 2020 General Plan. The San Jose Riparian Corridor Policy Study includes development guidelines for development along creeks to help protect riparian habitat and minimize impacts to riparian resources. These guidelines include site design, building and fixtures design, landscaping, public recreation facilities (e.g., streamside trails), fire management, vegetation/habitat continuity, and techniques to protect water quality.

4.7.4 IMPACTS AND MITIGATION MEASURES

4.7.4.1 Standards of Significance

In accordance with Appendix G of the *2013 California Environmental Quality Act (CEQA) Guidelines*, the impact of the proposed project related to land use and planning would be considered significant if it would:

- physically divide an established community;
- conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect; or
- conflict with any applicable habitat conservation plan or natural community conservation plan.

4.7.4.2 Issues Not Discussed Further

The analysis in the Initial Study prepared for the proposed project and circulated with the NOP concluded that further analysis of the following issues was not required in the EIR.

- Physically divide an established community.

Implementation of the 2025 Updated FMP would not physically divide an established community since the campus already exists, and future development on the campus would occur with campus boundaries. There would be no impact with regard to this criterion.

- Conflict with any applicable habitat conservation plan or natural community conservation plan.

There is no habitat conservation plan or natural community conservation plan applicable to the campus or its vicinity. There would be no impact related to this criterion. A habitat conservation plan/natural community conservation plan (HCP/NCCP) is currently being prepared for the Santa Clara Valley and the campus is located within the boundaries of the plan. The plan is expected to be finalized and effective by summer 2013. While the SJECCD is not a signatory to the NCP/NCCP, the SJECCD reviewed the 2025 Updated FMP for consistency with the HCP/NCCP. Of the species covered by the HCP/NCCP, only the Western burrowing owl has the potential to be located on the campus. As discussed in **Section 4.3**, the Campus would implement a measure to reduce impacts to the Western burrowing owl as a result of implementing the 2025 Updated FMP to a less than significant level.

In addition, the increase in vehicle trips to and from the campus as a result of the implementation of the 2025 Updated FMP could lead to an increase in air pollution. Increased nitrogen deposits that result from vehicle emissions have the potential to increase invasive species and reduce the larval food plants that support the Bay checkerspot butterfly, which is a species that is covered by the HCP/NCCP. The potential occurrence of Bay checkerspot butterfly on and near the campus is addressed in **Appendix 4.3** of the Draft EIR (see Biological Habitat Evaluation). Typical habitat of this federally Threatened butterfly exists on shallow, serpentine-derived or similar soils, which support the butterfly's larval food plants, as well as nectar sources for adults. Suitable habitat for the species is not present on the campus due to the absence of serpentinite or similar soils and associated vegetation conditions. As shown in **Figure 4.3-1** in **Section 4.3, Biological Resources**, bay checkerspot butterfly has been documented at a location approximately 1.8 miles to the southwest of the campus. However, according to the CNDDB, this occurrence (CNDDB Occurrence #13) was extirpated in 1977. Although this location no longer supports the species, the proposed project would not have an adverse effect on air quality in this area (and associated habitat) because the proposed project will add less than 10 vehicle trips in the AM peak hour to the segment of US 101 that is closest to this location and the contribution of the project to increased pollution in this location would not be substantial. None of the other roadways that would be used by project traffic to access the campus site pass through areas that contain current or past documented occurrences of the species. Therefore, increased vehicle trips associated with the proposed project would not adversely affect the Bay checkerspot butterfly habitat.

For these reasons, implementation of the 2025 Updated FMP would not conflict with the proposed NCP/NCCP.

4.7.4.3 Methodology

To estimate the potential for implementation of the 2025 Updated FMP to result in conflicts with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect, existing land uses (on- and off-campus) were compared to proposed future land uses that would be developed under the 2025 Updated FMP.

4.7.4.4 Project Impacts and Mitigation Measures

Impact LU-1: **Implementation of the 2025 Updated FMP would not conflict with applicable regional plans, policies, or regulations of an agency with jurisdiction over the project adopted for the purposes of avoiding or mitigating an environmental effect.**

Level of Significance: Less than significant

As required by Section 15125(d) of the *2013 State CEQA Guidelines*, this document discusses any inconsistencies between the 2025 Updated FMP and the two minor projects proposed by the Campus and applicable regional plans. The regional plans relevant to the 2025 Updated FMP, and for which a consistency analysis is provided, include the Bay Area 2010 Clean Air Plan (BAAQMD 2010), the Santa Clara County Congestion Management Plan (VTA 2003), and the San Francisco Bay Regional Water Quality Control Plan (San Francisco RWQCB 1995). Although no local plans are applicable to the proposed project, the project's consistency with the Envision San José 2040 General Plan and Riparian Corridor Policy Study is also evaluated. As demonstrated by the analysis below, the 2025 Updated FMP would not conflict with any local or regional plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and this impact is less than significant.

Envision San José 2040 General Plan

The City of San José General Plan identifies the EVC campus as a Public/Quasi Public land use. This designation allows uses including schools, colleges, corporation yards, homeless shelters, libraries, fire stations, water treatment facilities, convention centers and auditoriums, museums, governmental offices, and airports. Development on the campus pursuant to the 2025 Updated FMP would be similar to existing development and, like the current uses, would be consistent with this designation.

Riparian Corridor Policy Study

The Riparian Corridor Policy Study requires that all buildings, other structures (with the exception of bridges and minor interpretive node structures), impervious surfaces, outdoor activity areas (except for passive or intermittent activities) and ornamental landscaped areas be separated a minimum of 100 feet from the edge of a riparian corridor (or top bank, whichever is greater) (San José 1994). Construction of New Parking Lot C and the installation of the prefabricated metal cover over the corporation yard would take place within 100 feet of the Evergreen Creek riparian corridor which border the campus to the north. However, no new development along the corridor would infringe on riparian habitat. In addition, storm water runoff from New Parking Lot C will be designed to drain away from Evergreen Creek. Finally, no lighting would be associated with New Parking Lot C or the prefabricated metal cover over the corporation yard. Therefore, development on the campus pursuant to the 2025 Updated FMP and the two minor projects would be substantively consistent with the City of San José's Riparian Corridor Policy Study.

Bay Area 2010 Clean Air Plan

Air quality and greenhouse gas (GHG) impacts are analyzed in **Sections 4.2 Air Quality** and **4.5 Greenhouse Gases**. As noted in those sections, the significance thresholds developed by the BAAQMD are designed to ensure that individual projects proposed in the Air Basin either result in minor emissions that would not conflict with the Clean Air Plan or in the event they do exceed thresholds, the project is required to implement mitigation measures to bring its emissions down. The analyses of the air quality and GHG impacts show that the implementation of the 2025 Updated FMP and the two minor projects would not result in air emissions of criteria pollutants or GHG emissions that exceed applicable significance thresholds. Therefore, campus development pursuant to the 2025 Updated FMP and the implementation of the two minor projects would not conflict with the 2010 Clean Air Plan.

Santa Clara County Congestion Management Program

Potential traffic impacts on CMP designated intersections and freeway intersections in the vicinity of the EVC campus are analyzed in **Section 4.10, Transportation and Traffic** (the implementation of the two minor projects would generate no new trips). According to the analysis, CMP-designated freeway segments would not operate below the acceptable level of service standards established by the CMP with the addition of traffic generated by campus development pursuant to the 2025 Updated FMP. However, one CMP-designated intersection would operate below acceptable level of service standards established by the CMP with the addition of traffic generated by campus development pursuant to the 2025 Updated FMP under 2025 plus project conditions. Given that only one intersection would be impacted, the 2025 Updated FMP would not result in a substantial conflict with the Santa Clara County Congestion Management Program.

San Francisco Bay Regional Water Quality Control Plan (Basin Plan)

Implementation of the 2025 Updated FMP and the two minor projects is unlikely to generate contaminants that have been identified in the Basin Plan as causing water quality impairment of the South San Francisco Bay. In addition, activities associated with the 2025 Updated FMP would not introduce exotic species to the South San Francisco Bay or increase the impact of existing exotic species. Each individual project implemented under the 2025 Updated FMP would be required to prepare and implement a Storm Water Pollution Prevention Plan during project construction and future development on the campus would be required to comply with applicable National Pollutant Discharge Elimination System (NPDES) requirements for stormwater quality during operation. As a result, campus development pursuant to the 2025 Updated FMP would not conflict with the Basin Plan.

Mitigation Measure: No mitigation is required.

Impact LU-2: Implementation of the 2025 Updated FMP would not result in the development of land uses that are substantially incompatible with existing adjacent land uses or with planned uses.

Level of Significance: Less than significant

The 2025 Updated FMP does not propose land uses that are substantially incompatible with uses adjacent to the EVC campus. As discussed above, the 2025 FMP would generally conform to the Public/Quasi Public designation for the campus contained in the City's General Plan. In addition, while the density of development would slightly increase under the 2025 FMP compared to existing conditions, the overall pattern and type of campus development would generally be maintained. Therefore, surrounding land uses would continue to exist adjacent to a fully developed campus that would be generally similar to that which currently exists. In addition, all new buildings listed in the 2025 Updated FMP would be located in the central portion of campus and not along the boundaries of campus, and thus would not conflict with adjacent land uses. For these reasons, this impact is less than significant.

Mitigation Measure: No mitigation is required.

4.7.4.5 Cumulative Impacts and Mitigation Measures

Future non-campus-related development off-campus would be reviewed for consistency with adopted land use plans and policies by the City of San José, in accordance with the requirements of CEQA, the State Zoning and Planning Law, and the State Subdivision Map Act, all of which require findings of plan and policy consistency prior to approval of entitlements for development. For this reason, impacts associated with inconsistency of future non-campus related development off-campus with adopted plans and policies would not be significant. As shown in the analysis above, the proposed project would not conflict with any local or regional plans adopted for avoiding environmental impacts. The project would not contribute to any cumulative land use impacts.

4.7.5 REFERENCES

Bay Area Air Quality Management District. 2010. *Bay Area 2010 Clean Air Plan*

City of San José. 2011. *Envision San José 2040 General Plan*. Adopted November 1.

City of San José. 1994. *Riparian Corridor Policy Study*. Approved May 17 (Revised March 1999)

San Francisco Regional Water Quality Control Board. 1995. *San Francisco Bay Regional Water Quality Control Plan, as amended 2010.*

Valley Transportation Authority. 2003. *Santa Clara County Congestion Management Program.*

4.8 NOISE

4.8.1 INTRODUCTION

This section describes the existing ambient noise environment of the Evergreen Valley College (EVC) campus, including the sources of existing noise in the area of the proposed project and the current locations of noise-sensitive land uses that potentially would be affected by campus development under the 2025 Updated Facilities Master Plan (FMP) and the two minor projects proposed by the Campus. It describes the relevant noise standards and guidelines, discusses potential project-related noise sources, including construction activity, and compares changes in estimated noise levels due to the proposed project to thresholds of significance to determine the significance of the changes in the ambient noise environment that are anticipated to result from implementation of the 2025 Updated FMP.

No public or agency comments related to noise were received in response to the Notice of Preparation (NOP) issued for this EIR.

4.8.2 ENVIRONMENTAL SETTING

4.8.2.1 Study Area

For purposes of evaluating the noise impacts of the proposed project, the study area is defined to include the campus, residences, or schools within 1,000 feet of the campus boundary, and major roadways and city streets leading to the campus, including San Felipe Road and Yerba Buena Road.[1]

4.8.2.2 Fundamentals of Environmental Noise and Vibration

Noise

Noise is usually defined as unwanted sound. It is an undesirable byproduct of society's normal day-to-day activities. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. The definition of noise as unwanted sound implies that it has an adverse effect on people and their environment.

Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). The human ear does not respond uniformly to sounds at all frequencies; for example, it is less sensitive to low and high frequencies than it is to the medium frequencies that more closely correspond to human speech. In

1 Although other streets would also experience an increase in traffic related to campus development under the 2025 Updated FMP, noise levels would not increase substantially along those streets, as discussed later in this section.

response to the sensitivity of the human ear to different frequencies, the A-weighted noise level (or scale), which corresponds more closely with people's subjective judgment of sound levels, has been developed. This A-weighted sound level, referenced in units of dB(A), is measured on a logarithmic scale such that a doubling of sound energy results in a 3.0 dB(A) increase in noise level. In general, changes in a noise level of less than 3.0 dB(A) are not typically noticed by the human ear (US Department of Transportation 1980a). Changes in noise ranging from 3.0 to 5.0 dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. A greater than 5.0 dB(A) increase is readily noticeable, while the human ear perceives a 10.0 dB(A) increase in sound level to be a doubling of sound.

Noise sources occur in two forms: (1) point sources, such as stationary equipment or individual motor vehicles; and (2) line sources, such as a roadway with a large number of point sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6.0 dB(A) for each doubling of distance from the source to the receptor at acoustically "hard" sites and 7.5 dB at acoustically "soft" sites (US Department of Transportation 1980a).[2] For example, a 60 dB(A) noise level measured at 50 feet from a point source at an acoustically hard site would be 54 dB(A) at 100 feet from the source and 48 dB(A) at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3.0 dB(A) and 4.8 dB(A) per doubling of distance from the source to the receptor for hard and soft sites, respectively (US Department of Transportation 1980a). Sound levels can also be attenuated by manmade or natural barriers (e.g., sound walls, berms, ridges), as well as elevation differences, as illustrated in **Figure 4.8-1, Noise Attenuation by Barriers**. Wall/berm combinations may reduce noise levels by as much as 10.0 dB(A) depending on their height and distance relative to the noise source and the noise receptor (US Department of Transportation 1980b). Sound levels may also be attenuated 3.0 to 5.0 dB(A) by a first row of houses and 1.5 dB(A) for each additional row of houses (Barry and Reagan 1978). Noise is also attenuated by the walls of a building. The minimum noise attenuation provided by typical building construction in California is provided in **Table 4.8-1, Outside to Inside Noise Attenuation**.

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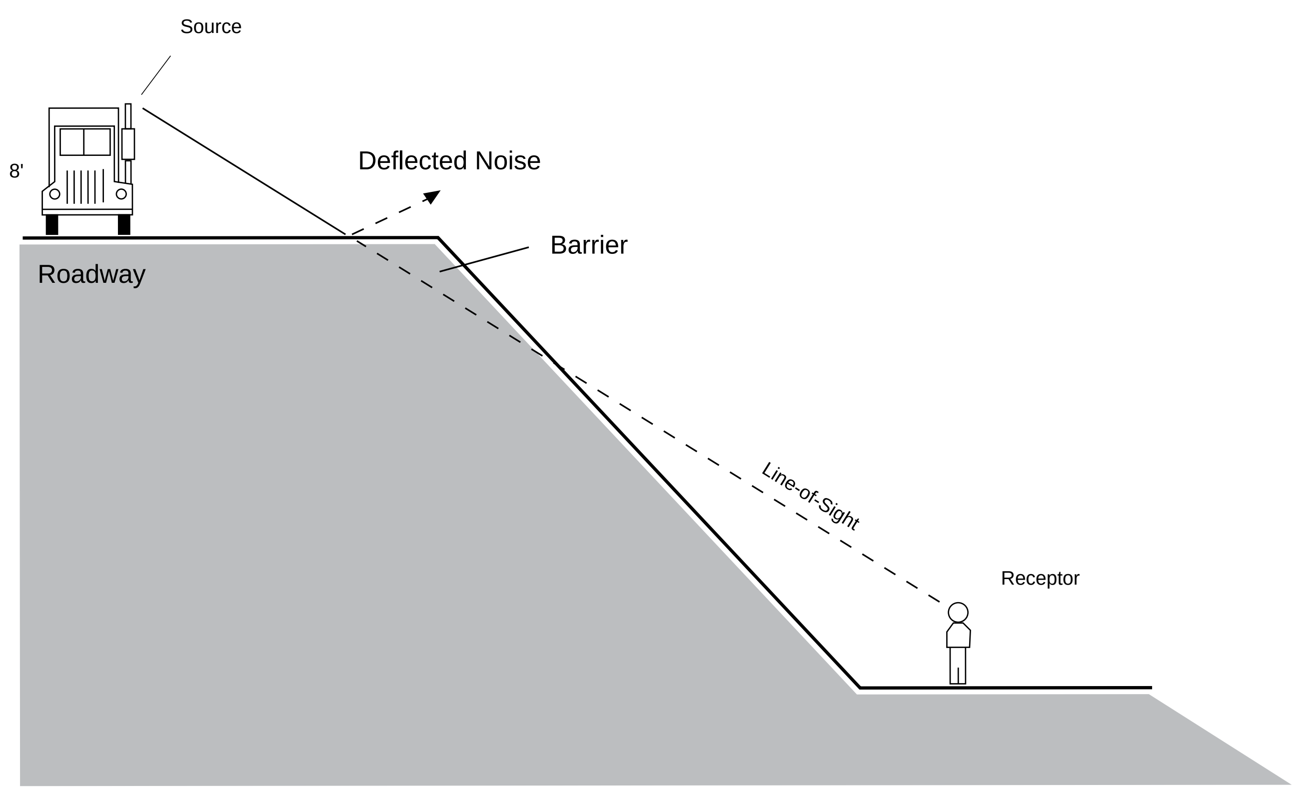
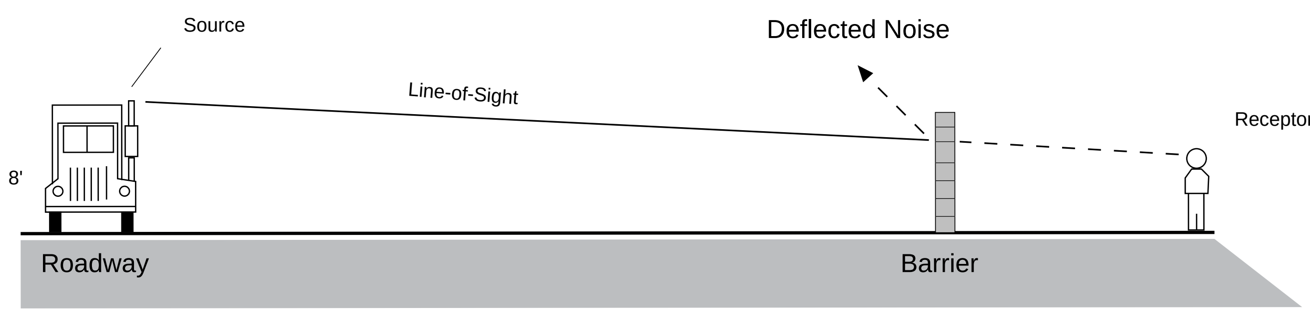
2 Examples of "hard" or reflective sites include asphalt, concrete, and hard and sparsely vegetated soils. Examples of acoustically "soft" or absorptive sites include soft, sand, plowed farmland, grass, crops, heavy ground cover, etc.



"Barrier Effect" Resulting from Differences in Elevation.



"Barrier Effect" Resulting from Typical Soundwall.

SOURCE: Impact Sciences, Inc. – August 2012

FIGURE **4.8-1**

Noise Attenuation by Barriers

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Table 4.8-1
Outside to Inside Noise Attenuation (dB(A))

Building Type	Open Windows	Closed Windows
Residences	17	25
Schools	17	25
Churches	20	30
Hospitals/Convalescent Homes	17	25
Offices	17	25
Theaters	20	30
Hotels/Motels	17	25

Source: Transportation Research Board, National Research Council, Highway Noise: A Design Guide for Highway Engineers, National Cooperative Highway Research Program Report 117.

When assessing community reaction to noise, there is an obvious need for a scale that averages varying noise exposures over time and that quantifies the result in terms of a single number descriptor. Several scales have been developed that address community noise level. Those that are applicable to this analysis are the Equivalent Noise Level (Leq), the Day-Night Noise Level (Ldn or DNL), and the Community Noise Equivalent Level (CNEL).

- Leq is the average A-weighted sound level measured over a given time interval. Leq can be measured over any period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods.
- Ldn or DNL is a 24-hour Leq with a "penalty" of 10 dB added during the nighttime hours (10:00 PM to 7:00 AM), which is normally sleeping time.
- CNEL is another average A-weighted sound level measured over a 24-hour period. However, the CNEL noise scale is adjusted to account for the increased sensitivity of some individuals to noise levels during the evening as well as the nighttime hours. A CNEL noise measurement is obtained after adding a "penalty" of 5 dB to sound levels occurring during the evening from 7:00 PM to 10:00 PM, and 10 dB to sound levels occurring during the nighttime from 10:00 PM to 7:00 AM.[3]

Vibration

Vibration is minute variation in pressure through structures and the earth, whereas noise is minute variation in pressure through air. Thus, vibration is felt rather than heard. Some vibration effects can be caused by noise, e.g., the rattling of windows from truck pass-bys. This phenomenon is related to the

3 The logarithmic effect of adding these penalties to the peak-hour Leq measurement results in a CNEL measurement that is within approximately 3 dB(A) (plus or minus) of the peak-hour Leq. California Department of Transportation, *Technical Noise Supplement: A Technical Supplement to the Traffic Noise Analysis Protocol*, October 1998, pp. N51-N54.

production of acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Groundborne vibration attenuates rapidly as distance from the source of the vibration increases.

Vibration can be measured as particle velocity in inches per second and referenced as vibration decibels (VdB). The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors.

Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is barely perceptible. The range of interest is from approximately 50 VdB, which is typical background vibration velocity, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

Figure 4.8-2, Typical Levels of Groundborne Vibration, identifies the typical groundborne vibration levels in VdB and human response to different levels of vibration.

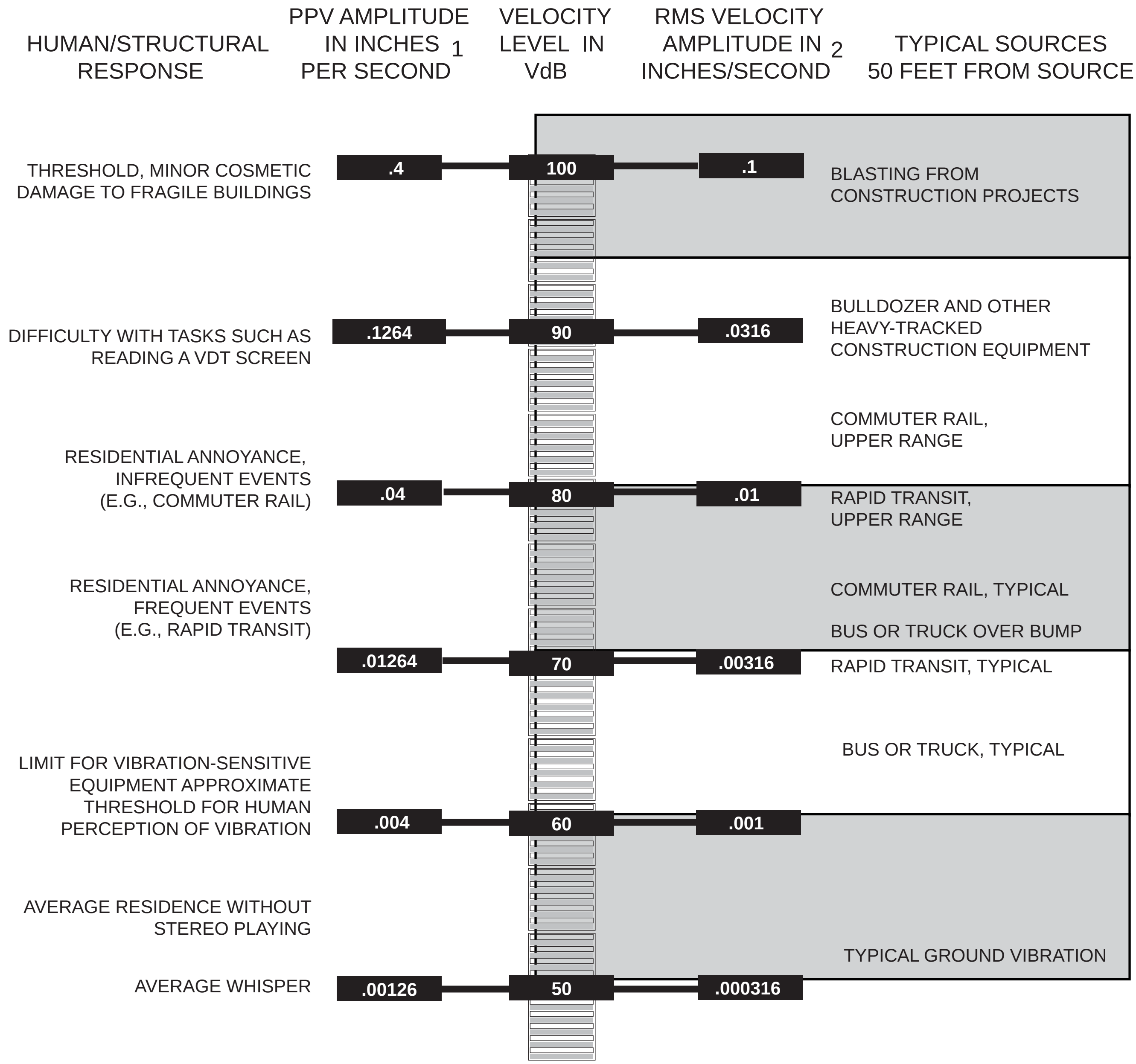
4.8.2.3 Noise-Sensitive Land Uses Within and Adjacent to the Campus

For purposes of this analysis based on the existing land uses on and near the campus, noise-sensitive receptors include residences, places of worship, parks, assisted-living centers, and academic buildings. Noise-sensitive receptors located close to heavily traveled roadways or other stationary noise sources on the campus include academic buildings set back from San Felipe and Yerba Buena Roads.

Off-campus sensitive receptors include residential uses to the north beyond Evergreen Creek, to the west beyond Thompson Creek, and to the south beyond Yerba Buena Creek. Other sensitive receptors in the vicinity of the campus include Evergreen Park and Church of the Rock Baptist Church to the south; Montgomery Hill Park to the east; and an assisted-living facility to the west.

4.8.2.4 Existing Noise Environment

The primary existing noise source throughout the project area (both on campus and off campus) is motor vehicle traffic. Localized intermittent sources of noise include sounds from parking lots and curbside parking activities, mechanical equipment, car alarms, emergency vehicle sirens, pedestrian traffic, and delivery trucks.



[1] PPV is typically a factor 1.7 to 6 times greater than RMS vibration velocity. A factor of 4 was used to calculate noise levels.

[2] Vibration levels in terms of velocity levels are defined as: $V = 20 \times \log_{10} (a/r)$
V=velocity levels in decibels
a=RMS velocity amplitude
r=reference amplitude (accepted reference quantities for vibration velocity are 1×10^{-6} inches/second in the United States)

FIGURE **4.8-2**

Typical Levels of Groundbourne Vibration

Roadways

The most pervasive noise sources in developed areas are typically related to transportation. Vehicle noise along heavily traveled roadways commonly causes sustained elevated noise levels. In densely developed communities, traffic noise often occurs in close proximity to land uses where people are sensitive to noise. Principal vehicular traffic routes near the campus include San Felipe and Yerba Buena Roads. Noise from these roadways dominates the noise environment along the western and southern perimeter of the campus.

The existing ambient noise levels were estimated for the segments of San Felipe and Yerba Buena Roads that are adjacent to the EVC campus based on average daily trips provided in the traffic study for this project. The traffic noise was modeled using the Federal Highway Administration Highway (FHWA) Highway Noise Prediction Model (FHWA-RD-77-108). The highest traffic volumes during either the AM or PM peak hour were used as inputs into the model. The results of the noise modeling are presented in **Table 4.8-2, Existing Roadway Modeled Noise Levels.** As shown, the modeled roadway noise level on San Felipe Road adjacent to the campus is 66.0 dB(A) CNEL while the modeled roadway noise level on Yerba Buena Road adjacent to the campus is 62.6 dB(A) CNEL. It is noted that noise levels along these roadways are likely higher than these levels due to the contribution of noise from other sources. However, traffic is the dominant noise source in the area.

Table 4.8-2
Existing Roadway Modeled Noise Levels

Roadway Segment/Intersection	CNEL at 75 Feet	Distance to Noise Contour [a]		
		70 CNEL	65 CNEL	60 CNEL
San Felipe Rd.				
• Between. Paseo de Arboles and Yerba Buena Rd.	66.0	-- [b]	93	289
Yerba Buena Rd.				
• East of San Felipe Rd.	62.6	-- [b]	-- [b]	136

Source: Impact Sciences. Model results are contained in ***Appendix 4.8****.*

a Distances are in feet from Roadway centerline. The identified noise level at 75 feet from the Roadway centerline is for reference purposes only as a point from which to calculate the noise contour distances. It does not reflect an actual building location or potential impact location.

b Noise contour is located within the Roadway right-of-way.

Stationary Sources

Stationary noise sources include parking lots, mechanical equipment, such as air conditioners, ventilation systems, and institutional operations, including landscape maintenance. These noise sources may result in environmental effects when they are in proximity of land uses where people are likely to be sensitive to noise.

Athletic Events

Noise levels are also generated periodically by on-site athletic and community activities at the athletic facilities (multi-use field, soccer field, tennis courts) in the south-central portion of the campus.

Construction Activity

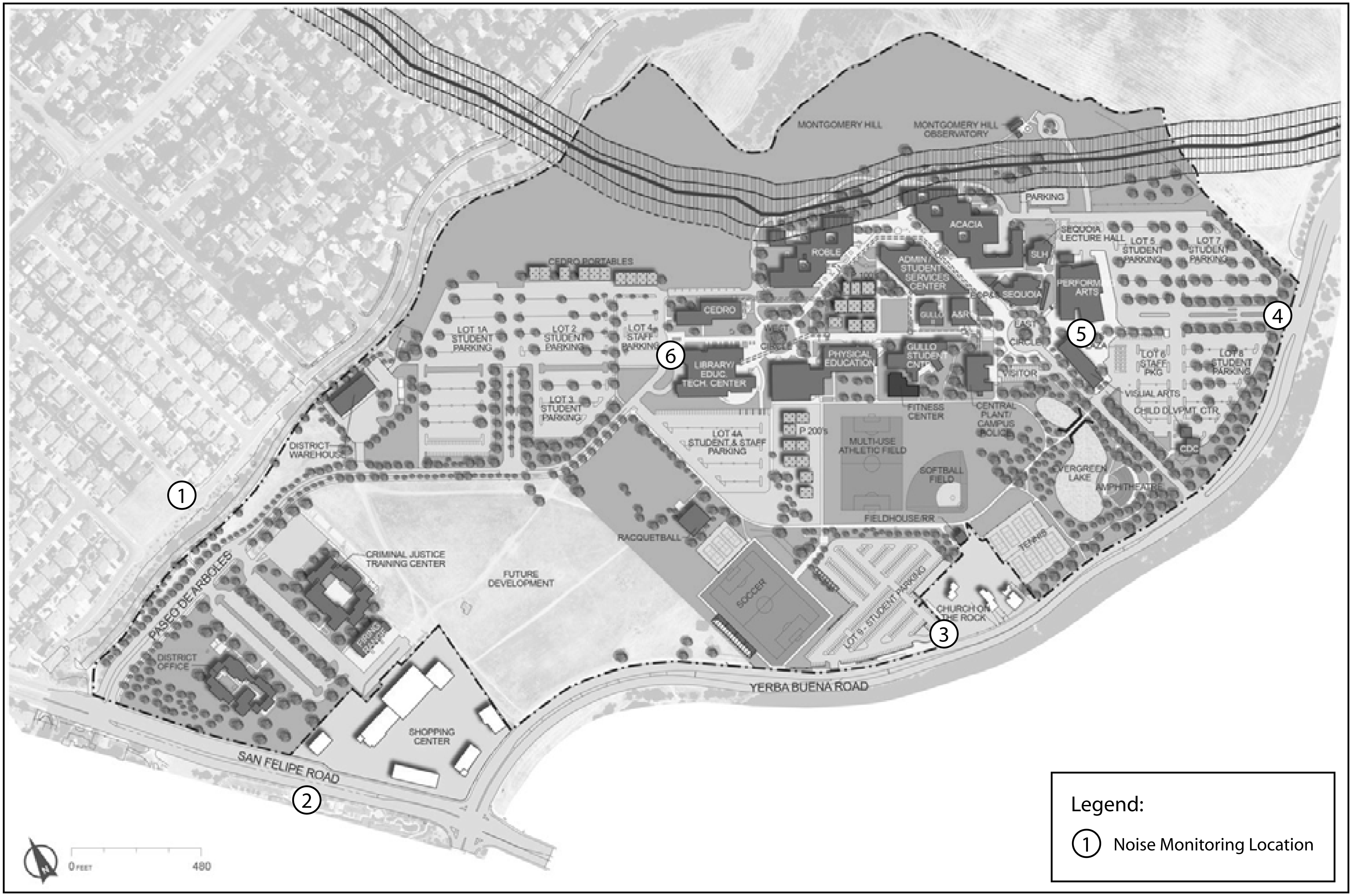
Construction traffic and equipment operation at construction sites temporarily elevates noise levels on the campus and in the vicinity of construction activities. Construction noise is typically most noticeable in quieter residential areas that are in proximity to project construction locations. Noise levels vary depending on the distance between construction activity and the receptors, the type of equipment used, how the equipment is operated, and how well it is maintained.

4.8.2.5 Ambient Noise Levels in the Project Area

Existing noise levels were monitored at six locations on or in the vicinity of the campus by Impact Sciences, Inc. on May 16, 2012 during the AM peak hours of 7:00 AM to 9:00 AM. These locations are identified in **Figure 4.8-3, Noise Monitoring Locations**. Average noise levels were 62.7 dB(A) at Location 1 (Batten Way/Falls Creek Drive intersection), 71.6 dB(A) at Location 2 (600 feet north of the San Felipe Road/Yerba Buena intersection, near the entrance to Vintage Silver Creek Assisted Living Center), 70.1 dB(A) at Location 3 (Yerba Buena Road/Parking Lot 9 intersection, adjacent to Church of the Rock Baptist Church), 58.9 dB(A) at Location 4 (Yerba Buena Road/Parking Lot 7 intersection, adjacent to Montgomery Hill Park), 50.9 dB(A) at Location 5 (Performing Arts Building), and 53.2 dB(A) at Location 6 (Library).

4.8.2.6 Existing Groundborne Vibration Environment

The primary sources of groundborne vibration at the campus and within the immediate vicinity are construction activities and roadway truck traffic. (Seismic events also cause vibration, but occur sporadically and are unpredictable in nature.) **Table 4.8-3, Vibration Levels for Construction Equipment**, identifies various vibration velocity levels for the types of construction equipment that is used on the campus.



SOURCE: Evergreen Valley College 2025 Facilities Master Plan – November 2011

FIGURE **4.8-3**

Noise Monitoring Locations

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Table 4.8-3
Vibration Levels for Construction Equipment

Equipment	Approximate VdB 25 Feet	50 Feet	75 Feet	100 Feet
Pile Driver (vibratory)	93	87	83	81
Large Bulldozer	87	81	77	75
Loaded trucks	86	80	76	74
Jackhammer	79	73	69	67
Small Bulldozer	58	52	48	46

Source: Federal Railroad Administration, 2005.

Heavy trucks such as those that would transport materials to and from construction sites within the campus typically generate groundborne vibration velocity levels of around 63 VdB. These levels can reach 72 VdB where trucks pass over bumps in the road.

4.8.3 REGULATORY SETTING

Federal and state laws have led to the establishment of noise guidelines for the protection of the population from adverse effects of environmental noise. Local noise compatibility guidelines are often based on the broader guidelines of state and federal agencies. Many local noise goals are implemented as planning guidelines and by enforceable noise ordinances.

4.8.3.1 Federal

Among other guidance, the Noise Control Act of 1972 directed the US Environmental Protection Agency (US EPA) to develop noise level guidelines that would protect the population from the adverse effects of environmental noise. The US EPA published a guideline containing recommendations of 55 dB(A) Ldn outdoors and 45 dB(A) Ldn indoors as a goal for residential land uses (US EPA 1974). The agency is careful to stress that the recommendations contain a factor of safety and do not consider technical or economic feasibility issues, and therefore should not be construed as standards or regulations.

The Department of Housing and Urban Development (HUD) standards define Ldn levels below 65 dB(A) outdoors as acceptable for residential use. Outdoor levels up to 75 dB(A) Ldn may be made acceptable through the use of insulation in buildings.

4.8.3.2 State

Title 24 of the California Code of Regulations codifies Sound Transmission Control requirements, which establishes uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings. Specifically, Title 24 states that interior noise levels attributable to exterior sources shall not exceed 45 dB(A) CNEL in any habitable room of new dwellings. Dwellings are to be designed so that interior noise levels will meet this standard for at least 10 years from the time of building permit application.

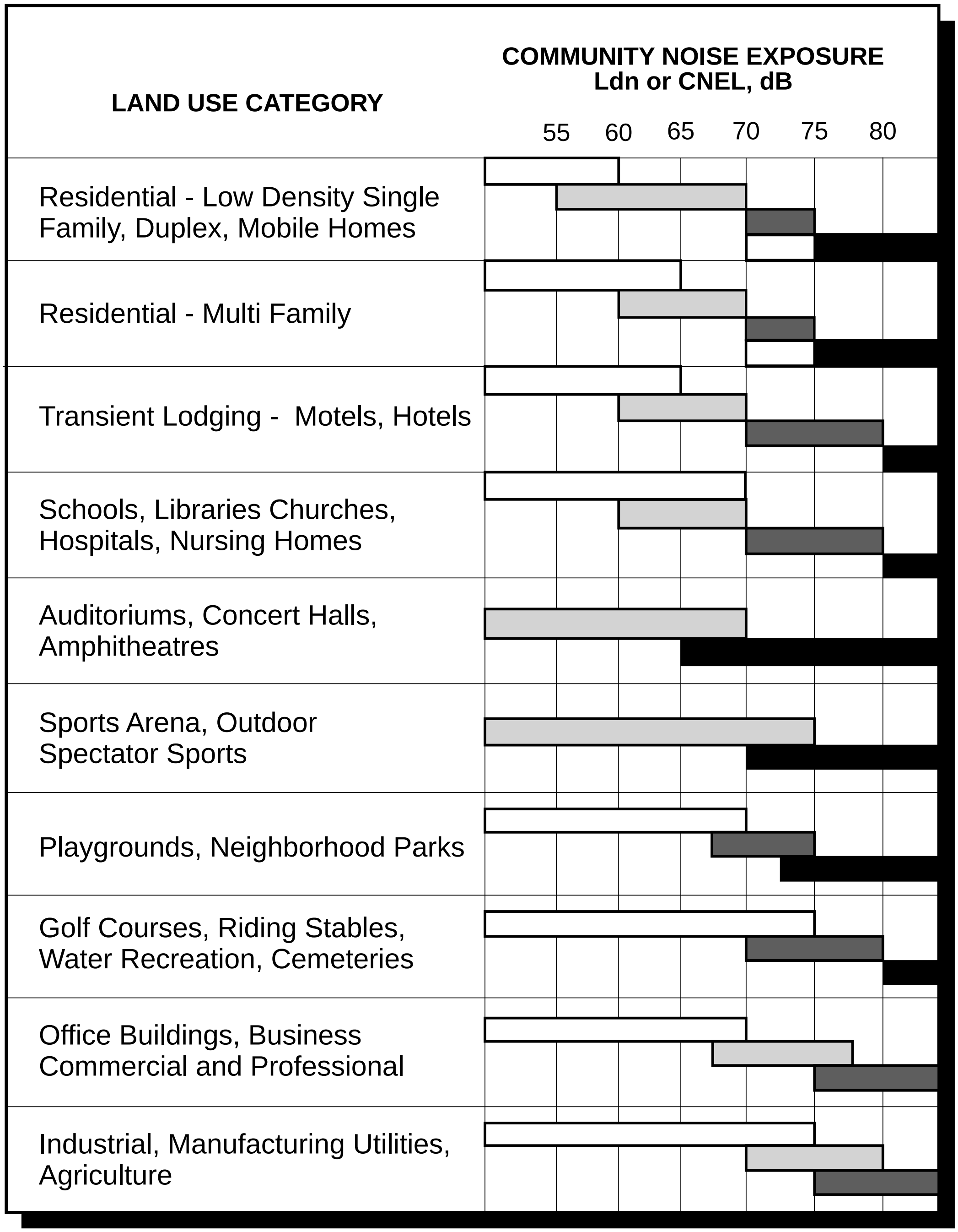
The California Department of Health Services has developed guidelines (1987) for community noise acceptability with which given uses are compatible for planning use by local agencies. These guidelines are shown in **Figure 4.8-4, Land Use Compatibility for Community Noise Environments**. Relevant noise level guidelines for the campus and the surrounding area include:

- CNEL below 60 dB(A)—normally acceptable for low-density residential use
- CNEL of 55 to 70 dB(A)—conditionally acceptable for low-density residential use
- CNEL below 65 dB(A)—normally acceptable for high-density residential use
- CNEL of 60 to 70 dB(A)—conditionally acceptable for high-density residential, transient lodging, churches, and educational and medical facilities
- CNEL below 70 dB(A)—normally acceptable for playgrounds and neighborhood parks

"Normally acceptable" noise levels are defined as levels satisfactory for the specified land use, assuming that conventional construction is used in buildings. "Conditionally acceptable" noise levels may require some additional noise attenuation or special study. Note that, under most of these land use categories, overlapping ranges of acceptability and unacceptability are presented, leaving some ambiguity in areas where noise levels fall within the overlapping range.

4.8.3.3 Local

The Envision San José 2040 General Plan provides land use compatibility for a wide range of land uses while Title 20 of the San José Municipal Code (Zoning) regulates persistent noise and construction noise sources. While local regulations do not apply to the EVC campus, they are summarized below and used in part as the basis for determining the significance of noise-related impacts.



NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise reduction features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

SOURCE: California Governor's Office of Planning and Research, State of California General Plan Guidelines, Appendix C: Guidelines for the Preparation and Content of Noise Elements of the General Plan, October 2003.

FIGURE **4.8-4**

Land Use Compatibility for Community Noise Environments

Envision San José 2040 General Plan

The Envision San José 2040 General Plan (2011) contains policies and goals which pertain to desired noise levels for various land uses located within the City. These policies and goals are expressed in terms of the DNL. As shown in **Figure 4.8-5, City of San José Land Use Compatibility Guidelines**, the exterior DNL goal in the General Plan for residential uses is 60 dB(A) DNL. Additional policies from the Envision San José 2040 General Plan (2011) that relate to noise are provided below.

Policy EC-1.2 Minimize the noise impacts of new development on land uses sensitive to increased noise levels by limiting noise generation and by requiring use of noise attenuation measures such as acoustical enclosures and sound barriers, where feasible. The City considers significant noise impacts to occur if a project would:

- Cause the DNL at noise sensitive receptors to increase by five dB(A) DNL or more where the noise levels would remain "Normally Acceptable"; or
- Cause the DNL at noise sensitive receptors to increase by three dB(A) DNL or more where noise levels would equal or exceed the "Normally Acceptable" level.

Policy EC-1.7 Require construction operations within San José to use best available noise suppression devices and techniques and limit construction hours near residential uses per the City's Municipal Code. The City considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would:

- Involve substantial noise generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months.

For such large or complex projects, a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints will be required to be in place prior to the start of construction and implemented during construction to reduce noise impacts on neighboring residents and other uses.

San José Municipal Code

According to Title 20 of the San José Municipal Code, the legal hours of construction within 500 feet of a residential unit are limited to the hours of 7:00 AM to 7:00 PM on Monday through Friday. This time restriction is limited to construction activity that requires a Development Permit or other Planning approval.

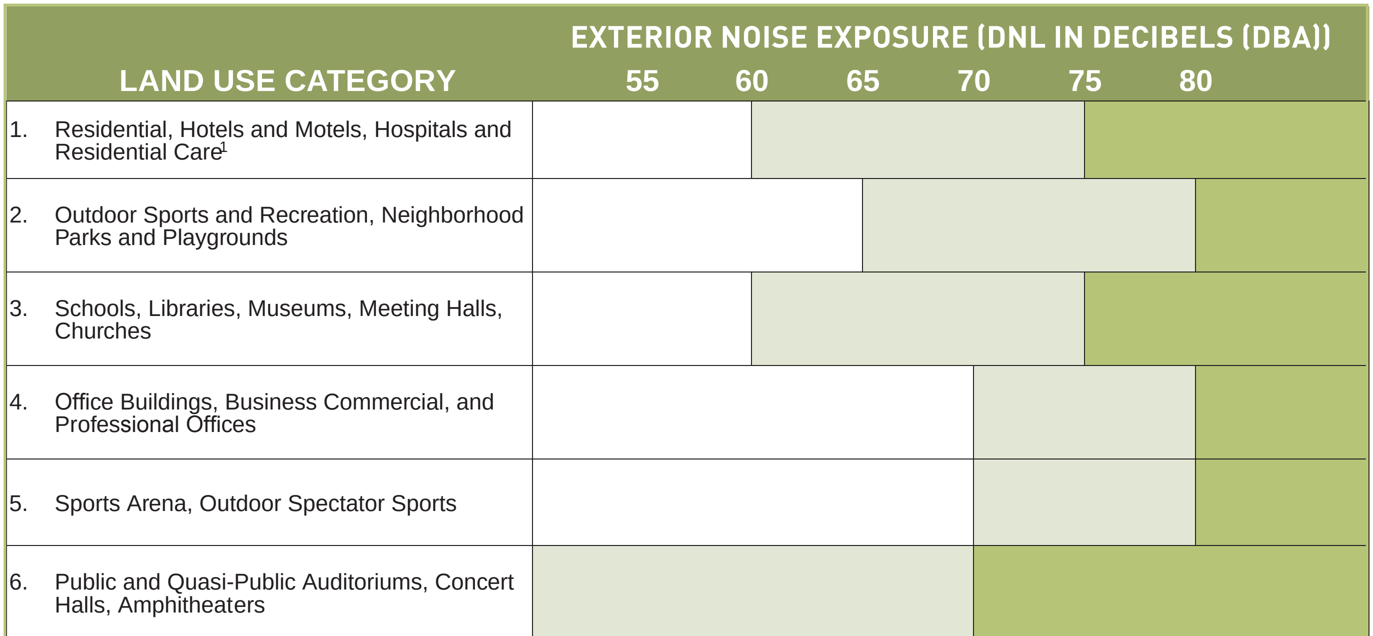
4.8.4 IMPACTS AND MITIGATION MEASURES

4.8.4.1 Standards of Significance

In accordance with Appendix G of the *2013 California Environmental Quality Act (CEQA) Guidelines*, the impact of the proposed project on noise would be considered significant if it would exceed the following significance criteria:

- Expose people to or generate noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies;
- Expose people to or generate excessive groundborne vibration or groundborne noise levels;
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- Result in exposure of people residing or working in the project area to excessive noise levels if the project is located within an area covered by 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; or
- Result in exposure of people residing or working in the project area to excessive noise levels if the project is located in the vicinity of a private airstrip.

For purposes of evaluating the significance of the project's noise impacts, the following numeric thresholds are used in this Draft EIR:



[1]Noise mitigation to reduce interior noise levels pursuant to Policy EC-1.1 is required.

Normally Acceptable:

- Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable:

- Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

Unacceptable:

- New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

SOURCE: San Jose 2040 General Plan, 2012

FIGURE **4.8-5**

City of San José Land Use Compatibility Guidelines

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On-Site Thresholds

According to the State Land Use Compatibility Guidelines for Noise (discussed above), school uses are “normally acceptable” with exterior noise levels up to 70 dB(A) CNEL. Given this, for purposes of this EIR, the project would result in a significant noise impact if on-site exterior locations around new campus academic buildings would be exposed to noise levels above 70 dB(A) CNEL.

Off-Site Thresholds

Off-site noise thresholds consider both the City’s noise compatibility guidelines identified in **Figure 4.8-4**, and community response to changes in noise levels. As noted earlier, although the College itself is not within the jurisdiction of the City of San José, the land uses surrounding the College are within the City’s jurisdiction. Therefore, the City’s noise compatibility guidelines were used to evaluate impacts to off-site noise-sensitive uses, which include single-family residences, parks, a church, and an assisted-living facility. The City’s acceptable exterior noise level objective for residential and most institutional land uses is 60 dB(A) DNL. The DNL is similar to the CNEL metric. As discussed above, the DNL metric accumulates the total noise occurring during a 24-hour period with a 10 dB penalty applied to noise occurring between 10:00 PM and 7:00 AM while the CNEL metric is the same except that it also adds a five dB penalty for noise occurring between 7:00 PM and 10:00 PM. There is little actual difference in practice. Calculations of CNEL and DNL from the same data generally yield values with a less than 0.7 dB difference (Caltrans 1983).

As noted above, changes in a noise level of less than 3 dB(A) are typically not noticed by the human ear. Changes from three to 5 dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dB(A) increase is readily noticeable. Based on this information, the following thresholds have been established for this analysis:

- An increase of 5 dB(A) or greater in noise level that occurs from project-related activities would be considered significant.
- An increase of 3 dB(A) or greater in noise level that occurs from project-related activities would be significant if the resulting noise levels equal or exceed the City’s “Normally Acceptable” level, which is 60 dB(A) DNL for residential and most institutional land uses.
- An increase of less than 3 dB(A) in noise level that occurs from project-related activities would not be significant.

Vibration

The *State CEQA Guidelines* do not define the levels at which groundborne vibration or groundborne noise is considered "excessive." This analysis uses the Federal Railway Administration's (FRA) vibration impact thresholds for buildings that house vibration-sensitive uses, residences, and institutional land uses.[4] These thresholds are 65 VdB at buildings where vibration would interfere with interior operations (e.g., research buildings), 80 VdB at residences and buildings where people normally sleep (e.g., nearby residences), and 83 VdB at other institutional buildings (FRA 2005).

4.8.4.2 Issues Not Discussed Further

The analysis in the Initial Study prepared for the proposed project and circulated with the NOP concluded that further analysis of the following issues was not required in the EIR.

- Result in exposure of people residing or working in the project area to excessive noise levels if the project is located within an area covered by 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

The campus is not located within the immediate vicinity of an airport. Other than aircraft overflights, the project site would not be exposed to noise from public airports. There would be no impact with respect to this criterion.

- Result in exposure of people residing or working in the project area to excessive noise levels if the project is located in the vicinity of a private airstrip.

The proposed project is not located in the vicinity of a private airstrip, and there would be no impact with regard to this criterion.

4.8.4.3 Methodology

The primary noise issues associated with campus development under the 2025 Updated FMP are the exposure of existing and proposed noise-sensitive land uses to noise from (1) short-term construction activities; (2) noise from project-related traffic and changes in traffic patterns (long-term); and (3) noise associated with daily activities on the campus, such as noise from landscaping maintenance, mechanical equipment, recreational activities, and parking lot activities, and from special events on the campus.

Existing noise conditions are described based on traffic noise modeling conducted using traffic data developed for this Draft EIR. Federal Highway Administration (FHWA) *Highway Traffic Noise Prediction Model* (FHWA-RD-77-108) was used to estimate traffic noise (US Department of Transportation 2006b).

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[4] The thresholds are for infrequent events which are defined as fewer than 70 vibration events per day.

This model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, distances between the noise source and the receptor, and other noise-attenuating conditions. The average vehicle noise rates (energy rates) for California were also used in this modeling. Noise modeling assumed soft ground type and did not take any shielding from barriers, structures, or terrain into account. Traffic noise was evaluated for the following scenarios: 2011 Existing, 2011 Existing plus Project, 2025 Cumulative No Project, and 2025 Cumulative plus Project. Average daily trip traffic volumes, traffic speeds, and vehicle mix (percentages of automobiles, medium trucks, and heavy trucks) were provided by Fehr & Peers Transportation Consultants for input into the traffic noise model. All noise levels were estimated and evaluated not at the source of noise but at the site where the nearest noise-sensitive receptor is located relative to the noise source.

The State Land Use Compatibility Guidelines for Noise were used to evaluate the significance of on-site noise impacts while adopted noise thresholds from the Envision San José 2040 General Plan were used to evaluate the significance of off-site noise impacts. As described above, for purposes of evaluating whether an increase in noise levels as a result of the project would be significant, an increase of 3 dB(A) or greater was considered a substantial permanent increase.

4.8.4.4 Project Impacts and Mitigation Measures

Impact NOI-1: **Implementation of the 2025 Updated FMP would not expose on-campus academic buildings to noise levels in excess of the State's exterior noise standard for schools.**

Level of Significance: Less than significant

Future noise levels on the campus and in the surrounding area would continue to be dominated by vehicular traffic on adjacent roadways. **Table 4.8-4, 2025 Plus Project Roadway Modeled On-Site Noise Levels**, presents the modeled future average daily noise levels associated with these roadways under 2025 conditions.

Table 4.8-4
2025 Plus Project Roadway Modeled On-Site Noise Levels

Roadway Segment/Intersection	CNEL at 75 Feet	Distance to Noise Contour [a]		
		70 CNEL	65 CNEL	60 CNEL
San Felipe Rd.				
• Between. Paseo de Arboles and Yerba Buena Rd.	67.7	-- [b]	139	433
Yerba Buena Rd.				
• East of San Felipe Rd.	65.8	-- [b]	90	278

Source: Impact Sciences. Model results are contained in ***Appendix 4.8****.*
a Distances are in feet from Roadway centerline. The identified noise level at 75 feet from the Roadway centerline is for reference purposes only as a point from which to calculate the noise contour distances. It does not reflect an actual building location or potential impact location.
b Noise contour is located within the Roadway right-of-way.

As shown in **Table 4.8-4**, the 70 dB(A) contour associated with traffic on San Felipe or Yerba Buena Road does not extent on to any part of the campus. Furthermore, practically all of the existing and new academic buildings such as the GED building and Math and Science buildings are located in the interior of the campus at considerable distances from the roadways. Therefore, none of the academic buildings on the campus would be subject to exterior noise levels exceeding the state standard for schools under 2025 conditions.

The analysis above presents the modeled future average daily noise levels at full build out under the 2025 Updated FMP, which for the purposes of this EIR is assumed to occur by 2025. As all of the additional vehicle trips generated under the 2025 Updated FMP that would contribute to traffic noise are not expected to be added to the study area transportation network immediately following approval of the proposed project nor are all the proposed buildings likely to be constructed in the next few years, an existing plus project noise analysis is an unrealistic analysis. Nonetheless, to comply with CEQA that requires an evaluation of the proposed project against existing conditions such an analysis was conducted that evaluated the impact associated with increases in average daily noise levels under existing plus project conditions.

Table 4.8-5, Existing Plus Project Roadway Modeled On-Site Noise Levels, presents the modeled future average daily noise levels associated with traffic on San Felipe Road and Yerba Buena Road under existing plus project conditions.

Table 4.8-5
Existing Plus Project Roadway Modeled On-Site Noise Levels

Roadway Segment/Intersection	CNEL at 75 Feet	Distance to Noise Contour [a]		
		70 CNEL	65 CNEL	60 CNEL
San Felipe Rd.				
• between. Paseo de Arboles and Yerba Buena Rd.	66.4	-- [b]	102	317
Yerba Buena Rd.				
• east of San Felipe Rd.	63.2	-- [b]	-- [b]	154

Source: Impact Sciences. Model results are contained in ***Appendix 4.8****.*
a Distances are in feet from Roadway centerline. The identified noise level at 75 feet from the Roadway centerline is for reference purposes only as a point from which to calculate the noise contour distances. It does not reflect an actual building location or potential impact location.
b Noise contour is located within the Roadway right-of-way.

As shown in **Table 4.8-5**, the 70 dB(A) contour from San Felipe or Yerba Buena Road does not extent onto any part of campus. Furthermore, as under 2025 conditions, practically all of the existing and new academic buildings such as the GED building and Math and Science buildings are located in the interior of the campus at considerable distances from the roadways. Therefore, none of the academic buildings on campus would be subject to exterior noise levels exceeding the state standard for schools under existing conditions.

Mechanical HVAC equipment would typically be located on the rooftop of each new building or at ground level. The type of equipment currently installed on new buildings within the campus generates noise levels that average around 66 dB(A) Leq on the air inlet side and 62 dB(A) Leq on the other sides when measured at 50 feet from the source. The 24-hour CNEL noise levels are about 6.7 dB(A) greater than 24-hour Leq measurements. This means that this equipment could generate noise levels that average 69 to 73 dB(A) CNEL at 50 feet when the equipment is operating constantly for 24 hours. Shielding installed around all new equipment at the campus reduces these noise levels by at least 15 dB(A). Therefore with shielding, noise from HVAC equipment would not produce noise levels over 70 dB(A) CNEL. Therefore, none of the academic buildings on the campus would be subject to exterior noise levels exceeding the state standard of 70 dB(A) for schools.

Based on the above, implementation of the 2025 Updated FMP would not result in the exposure of persons to or generation of noise levels in excess of applicable standards, and this impact would be less than significant.

Mitigation Measure: No mitigation is required.

Impact NOI-2: **Implementation of the 2025 Updated FMP would generate increased local traffic volumes that would not cause a substantial permanent increase in noise levels at off-campus locations.**

Level of Significance: Less than significant

Implementation of the 2025 Updated FMP could cause potential traffic-related noise impacts due to increases in the amount of traffic generated by the campus under 2025 conditions. Several locations in the vicinity of the campus could experience slight changes in noise levels as a result of increased traffic. The changes in modeled future noise levels at selected noise-sensitive locations along the study area roadway segments are identified in **Table 4.8-6, Operational Roadway Noise Levels – 2025 Conditions**. As shown, many sensitive receptors would experience noise levels above the 60 dB(A) DNL standard for residential uses. At four of these locations the total increases in noise levels would be above the City's 3 dB(A) or greater standard, and therefore these increases in noise levels could be perceptible to the human ear.

Because the roadway noise levels at some on- and off-campus locations would increase by more than 3 dB(A) CNEL, there would be a substantial permanent on- or off-campus increase in ambient noise levels under 2025 conditions with the proposed project. However, as shown in **Table 4.8-5**, campus development would not by itself contribute enough traffic to cause increases in noise levels above the City's 3 dB(A) or greater standard, and project impacts would be less than significant under 2025 conditions.

As explained under **Impact NOI-1**, the analysis of environmental impacts in this EIR is focused on 2025 conditions because it is anticipated that the campus would be fully build out under the 2025 Updated FMP by that year. As all of the additional vehicle trips generated by the campus under the 2025 Updated FMP that would contribute to traffic noise are not expected to be added to the study area transportation network immediately following approval of the proposed project nor would all the proposed buildings likely be constructed in the next few years, an existing plus project noise analysis is an unrealistic analysis. Nonetheless, an analysis was conducted that evaluated the impact associated with increases in average daily noise levels under existing plus project conditions.

The changes in modeled noise levels at selected noise-sensitive locations along the study area roadway segments under existing plus project conditions are presented in **Table 4.8-7, Operational Roadway Noise Levels – Existing Plus Project Conditions**. As shown, although many sensitive receptors would experience noise levels above the 60 dB(A) DNL standard for residential and most institutional land uses, the changes in traffic volumes related to the proposed project would increase noise levels by less than 1 decibel at all locations, which is inaudible or imperceptible to most people, and well below the significance threshold. Project impacts would be less than significant under existing conditions.

Mitigation Measure: No mitigation is required.

Table 4.8-6
Operational Roadway Noise Levels – 2025 Conditions (in CNEL)

Roadway Segment/Intersection	Existing Noise Levels Without Project	2025 Noise Levels Plus Project	Change in Noise Levels	Project Contribution to Change in Noise Levels	Significant Project Impact	Significant Cumulative Impact
South King Rd., west of E. Capital Expressway	63.0	63.3	0.3	0.0	No	No
Silver Creek Rd., between E. Capital Expressway and Yerba Buena Rd.	64.5	65.0	0.5	0.1	No	No
Neiman Blvd., north of Aborn Rd.	58.5	59.3	0.8	0.1	No	No
Neiman Blvd., between Aborn Rd. and Yerba Buena Rd.	58.7	59.1	0.4	0.1	No	No
Neiman Blvd., south of Yerba Buena Rd.	60.7	61.2	0.5	0.1	No	No
San Felipe Rd., north of Aborn Rd.	63.3	65.2	1.9	0.0	No	No
San Felipe Rd., between Aborn Rd. and Yerba Buena Ave.	66.3	68.2	1.9	0.2	No	No
San Felipe Rd., between Yerba Buena Avenue and Fowler Rd.	65.7	67.8	2.1	0.2	No	No
San Felipe Rd., between Fowler Rd. and Delta Rd.	65.6	66.7	1.1	0.2	No	No
San Felipe Rd., between Delta Rd. and Paseo de Arboles	66.2	67.1	0.9	0.2	No	No
San Felipe Rd., between Paseo de Arboles and Yerba Buena Rd.	66.0	67.7	1.7	0.3	No	No
San Felipe Rd., south of Yerba Buena Rd.	61.7	63.1	1.4	0.1	No	No
Byington Dr., south of Yerba Buena Rd.	44.4	47.7	3.3	0.0	No	No
Aborn Rd., west of E. Capitol Expressway	62.3	62.5	0.2	0.0	No	No
Aborn Rd., between E. Capitol Expressway and Nieman Blvd.	70.6	73.3	2.7	0.0	No	No
Aborn Rd., between Nieman Blvd. and San Felipe Rd.	70.8	73.7	2.9	0.0	No	No
Aborn Rd., east of San Felipe Rd.	65.7	69.1	**3.4**	0.0	No	**Yes**
Yerba Buena Avenue, west of San Felipe Rd.	54.8	55.1	0.3	0.0	No	No
Fowler Rd., east of San Felipe Rd.	53.3	55.0	1.7	0.0	No	No
Delta Rd., east of San Felipe Rd.	56.3	57.0	0.7	0.0	No	No
Paseo de Arboles, east of San Felipe Rd.	58.0	58.7	0.7	0.8	No	No
Yerba Buena Rd., west of Silver Creek Rd.	63.7	66.5	2.8	0.0	No	No
Yerba Buena Rd., between Silver Creek Rd. and Nieman Blvd.	66.5	69.5	**3.0**	0.1	No	**Yes**
Yerba Buena Rd., between Nieman Blvd. and Byington Dr.	66.8	69.4	2.6	0.2	No	No
Yerba Buena Rd., between Byington Dr. and San Felipe Rd.	66.8	69.9	**3.1**	0.2	No	**Yes**
Yerba Buena Rd., east of San Felipe Rd.	62.6	65.8	**3.2**	0.3	No	**Yes**

Source: Impact Sciences. Model results are contained in ***Appendix 4.8****.*

Table 4.8-7
Operational Roadway Noise Levels – Existing Plus Project Conditions

Roadway Segment/Intersection	Existing Noise Levels Without Project	Existing Noise Levels Plus Project	Change in Noise Levels	Significant Project Impact
South King Rd., west of E. Capital Expressway	63.0	63.1	0.1	No
Silver Creek Rd., between E. Capital Expressway and Yerba Buena Rd.	64.5	64.6	0.1	No
Neiman Blvd., north of Aborn Rd.	58.5	58.6	0.1	No
Neiman Blvd., between Aborn Rd. and Yerba Buena Rd.	58.7	58.8	0.1	No
Neiman Blvd., south of Yerba Buena Rd.	60.7	60.9	0.2	No
San Felipe Rd., north of Aborn Rd.	63.3	63.3	0.0	No
San Felipe Rd., between Aborn Rd. and Yerba Buena Ave.	66.3	66.6	0.3	No
San Felipe Rd., between Yerba Buena Avenue and Fowler Rd.	65.7	66.0	0.3	No
San Felipe Rd., between Fowler Rd. and Delta Rd.	65.6	65.8	0.2	No
San Felipe Rd., between Delta Rd. and Paseo de Arboles	66.2	66.4	0.2	No
San Felipe Rd., between Paseo de Arboles and Yerba Buena Rd.	66.0	66.4	0.4	No
San Felipe Rd., south of Yerba Buena Rd.	61.7	61.8	0.1	No
Byington Dr., south of Yerba Buena Rd.	44.4	44.4	0.0	No
Aborn Rd., west of E. Capitol Expressway	62.3	62.3	0.0	No
Aborn Rd., between E. Capitol Expressway and Nieman Blvd.	70.6	70.6	0.0	No
Aborn Rd., between Nieman Blvd. and San Felipe Rd.	70.8	70.9	0.1	No
Aborn Rd., east of San Felipe Rd.	65.7	65.7	0.0	No
Yerba Buena Avenue, west of San Felipe Rd.	54.8	54.8	0.0	No
Fowler Rd., east of San Felipe Rd.	53.3	53.3	0.0	No
Delta Rd., east of San Felipe Rd.	56.3	56.3	0.0	No
Paseo de Arboles, east of San Felipe Rd.	58.0	58.7	0.7	No
Yerba Buena Rd., west of Silver Creek Rd.	63.7	63.8	0.1	No
Yerba Buena Rd., between Silver Creek Rd. and Nieman Blvd.	66.5	66.7	0.2	No
Yerba Buena Rd., between Nieman Blvd. and Byington Dr.	66.8	67.1	0.3	No
Yerba Buena Rd., between Byington Dr. and San Felipe Rd.	66.8	67.1	0.3	No
Yerba Buena Rd., east of San Felipe Rd.	62.6	63.2	0.6	No

Source: Impact Sciences. Model results are contained in ***Appendix 4.7****.*

Impact NOI-3: Implementation of the 2025 Updated FMP would add new stationary and area noise sources to the campus. However, it would not cause a substantial permanent increase in ambient noise levels on- or off-campus.

Level of Significance: Less than significant

The 2025 Updated FMP involves changes to portions of the central campus with limited to no changes proposed along the campus edges. A new applied technology building and GED/Engineering/Applied Tech complex would be built in the north-central portion of the campus while new Fitness Center, GED, and Math/Science buildings would be located in the south-central portion of the campus. A number of new parking lots - Lots A, B, C, New Short-Term Student Parking, and New Staff Parking - would also be located on the perimeter of the campus.

Buildings associated with the 2025 Updated FMP would include stationary sources of noise such as mechanical HVAC equipment. As discussed in **Impact NOI-1**, stationary equipment on the campus could generate noise levels that average 69 to 73 CNEL at 50 feet when the equipment is operating. With shielding, noise levels generated by stationary equipment would be reduced by about 15 dB(A), thus resulting in an average of 54 to 58 CNEL at 50 feet. Sound generated by a point source typically attenuates at a rate of 6.0 dB(A) for each doubling of distance from the source to the receptor. Thus, at 100 feet, new stationary equipment would average 48 to 52 CNEL while at 200 feet new stationary equipment would average 42 to 46 CNEL. The nearest residential structures to the proposed buildings are located approximately 1,200 feet to the north across Evergreen Creek and 1,150 feet to the south across Yerba Buena Road and Yerba Buena Creek. In addition, the Church on the Rock Baptist Church is located about 660 feet south and Evergreen Park is located 1,150 south of the proposed buildings. At these distances, noise from mechanical HVAC equipment would not exceed the City's 60 dB(A) DNL long-term exterior noise standard for residential, church and park uses.

Concerning the new parking lots, typical parking lot noise includes doors shutting, engines starting, and acceleration. Other noises may include tire squeal noise, loud stereos, and car alarms. Three new parking lots (Lot A, New Staff Parking and New Short-term Student Parking) proposed under the 2025 Updated FMP would be located in the northeastern portion of the campus. The closest off-site sensitive use to these lots is Montgomery Hill Park, which is located 100 feet to the east of Parking Lot A. A large parking lot on the campus consisting of 244 spaces (Lot 7) already exists adjacent to Montgomery Hill Park. Therefore, park patrons are already being exposed to noise levels associated with parking lots, and the incremental increase in parking associated with the new lot would not substantially increase amount of noise generated by parking lots. Therefore, noise impacts from the new parking lots located on the northeastern portion of the campus would not be substantial.

Another new parking lot (New Parking lot B) proposed under the 2025 Updated FMP would be located in the southwestern portion of the campus north of the tennis courts and south of Parking Lot 3. The closest off-site sensitive uses to this lot are residences and Evergreen Park located approximately 1,100 feet to the south across Yerba Buena Road and Yerba Buena Creek, and Church of the Rock Baptist Church located approximately 1,100 feet to the southwest. All of the sensitive uses are located far enough away that noise from New Parking Lot B would not adversely affect these uses, and noise impacts from New Parking Lot B would be less than significant.

Next, another new parking lot (New Parking Lot C) proposed under the 2025 Updated FMP would be located in the northwestern portion of the campus north of the new loop road and adjacent to the recently constructed photovoltaic array project. The closest off-site sensitive uses to this lot are residences located about 150 feet to the north across Evergreen Creek. Distance and intervening terrain between New Parking Lot C and the residences to the north would reduce noise generated on new parking lot so as not to adversely affect these residences and noise impacts from New Parking Lot C would be less than significant.

Implementation of the 2025 Updated FMP could potentially increase the number of students using the athletic facilities (multi-use field, soccer field, tennis courts) in the south-central portion of the campus. The types of noise generated by these facilities would generally be the same as under existing conditions, although frequency of use could increase with the addition of students to the campus, and the increase in frequency of use could slightly raise the noise levels on the field. However, the increase in noise at nearby sensitive uses such as Church of the Rock Baptist Church, located within 50 feet of the tennis courts, and nearby residences and Evergreen Park, located approximately 400 feet from the soccer field on the opposite side of Yerba Buena Road and Yerba Buena Creek, would not be greater than 3 dB(A), which is the significance threshold for areas where noise levels exceed the City's 60 dB(A) DNL long term exterior noise standard, because the increase in the frequency of use of the tennis courts and soccer field would not be substantial. In addition, distance would attenuate noise generated on the soccer field at nearby residential uses on the opposite side of Yerba Buena Road and Yerba Buena Creek. Finally, all the uses associated with the new physical fitness center would occur inside.

As a separate project the campus proposes installing bleachers to seat 2,000 spectators on the eastern side of the soccer field. The purpose of the bleachers is to allow the soccer field to be used for special events such as graduation ceremonies and large community sporting events (up to four per year). The closest off-site sensitive uses to the field are residences and Evergreen Park located approximately 400 feet to the south across Yerba Buena Road and Yerba Buena Creek, and Church of the Rock Baptist Church located approximately 450 feet to the southeast. Noise generated on the field would be elevated during these events and would be audible to nearby sensitive receptors. However, because these events would occur infrequently (as low as once per year and up to five times per year) the impact on nearby receptors would not be significant.

For the reasons listed above, stationary and area sources of noise associated with the 2025 Updated FMP would not cause a substantial permanent increase in ambient noise levels off-campus, and the impact would be less than significant.

Mitigation Measure: No mitigation is required.

Impact NOI-4: Construction on the campus pursuant to the 2025 Updated FMP could expose existing and future noise-sensitive receptors to elevated construction noise levels and result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Level of Significance: Potentially significant

Construction of new facilities on the campus would occur as a result of the implementation of the 2025 Updated FMP and would include demolition, ground clearing, earthmoving, foundation work, erection of structures, and finishing work. In addition, construction truck movement would be expected to temporarily elevate the noise levels along roadways used for access to the construction sites. However, roadways in the vicinity of the campus are already heavily traveled, and while sensitive receptors are located along these roadways, the number of construction trucks, which would be relatively low compared to current roadways volumes, is unlikely to substantially elevate traffic noise levels along the roadways.

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance and shielding between construction noise sources and noise sensitive areas. **Table 4.8-8, Construction Equipment Noise Emission Levels,** summarizes noise levels produced by commonly used construction equipment. Individual types of construction equipment are expected to generate noise levels ranging from 74 to 89 dB(A) at a distance of 50 feet. If pile driving is required, noise levels may reach 101 dB(A) at a distance of 50 feet.

Noise generated by construction is anticipated to be the greatest during site demolition and grading activities. Maximum noise levels would typically range from of 90 to 95 dB(A) at a distance of 50 feet from the source during demolition work while maximum noise levels would typically range from 70 to 90 dB(A) during excavation and grading activities. In addition, maximum noise levels would also typically range from 65 to 85 dB(A) during building construction at a distance of 50 feet from the source unless pile driving is required. Hourly average construction noise levels are typically 75 dB(A) to 85 dB(A) measured at a distance of 50 feet from the center of the site during busy construction periods. Construction noise levels decrease at a rate of about 6 dB(A) per doubling of distance between the source and receptor. Shielding by buildings or terrain often results in much lower construction noise levels at distant receptors.

Table 4.8-8
Construction Equipment Noise Emission Levels

Equipment	Typical Noise Level (dB(A)) 50 feet from Source
Pile Driver	101
Grader	85
Bulldozers	85
Truck	88
Loader	85
Roller	74
Air Compressor	81
Backhoe	80
Pneumatic Tool	85
Paver	89
Concrete Pump	82

Source: Federal Transit Administration 2006.

On-site noise sensitive uses include academic buildings, including both existing buildings and new buildings such as the GED building and Math and Science buildings that would be located close to areas where demolition and construction would occur under the 2025 Updated FMP. As discussed above, a maximum noise level of 95 dB(A) at 50 feet could be experienced during demolition, while a maximum noise level of 90 dB(A) at 50 feet could be experienced during excavation and grading activities. In addition, a maximum noise level of 101 dB(A) at 50 feet could be experienced during building construction if pile driving is required. These levels are greater than the state's exterior noise level standard of 70 dB(A) CNEL for schools. Therefore, implementation of the 2025 Updated FMP could expose existing and future sensitive uses on campus to elevated noise levels. This represents a potentially significant impact.

The closest off-campus noise-sensitive receptors to the campus include single-family residences located to the north, south, and west of campus. Additional sensitive receptors within the vicinity of the campus include Evergreen Park and a church to the south; Montgomery Hill Park to the east; and an assisted-living facility to the west. Residences to the north of campus are located approximately 150 feet from the nearest planned construction on the campus and about 1,000 feet from the nearest planned demolition; residences to the south of the campus are located 1,000 feet from the nearest planned construction and demolition on the campus; and residences to the west are located approximately 2,000 feet from the nearest planned construction on the campus and about 2,500 feet from the nearest planned demolition. Evergreen Park is located about 800 feet from the nearest planned construction and demolition on the campus, while the church is located directly adjacent to the campus on Yerba Buena Road and is approximately 650 feet from the nearest planned construction on the campus and about 100 feet from the nearest planned demolition. Montgomery Hill Park is also located adjacent to the campus and is about 100 feet from planned construction on the campus and about 700 feet from the nearest planned demolition. The assisted living center is located 1,300 feet from planned construction on the campus and about 1,500 feet from the nearest planned demolition.

As discussed earlier in this section, a significant impact would occur if construction activity would result in sound levels of more than 60 dB(A) DNL at the property lines for most sensitive uses, including churches, residential uses, and parks. Due to the distance of most sensitive receptors from planned construction sites, as well as noise attenuation by campus structures, most construction noise would be attenuated to levels at which it would not be distinguishable from existing ambient noise (such as traffic noise). The exceptions are Church of the Rock Baptist Church to the south, the single-family residential uses to the north, and Montgomery Park.

The church to the south could experience attenuated noise levels of up to 69 dB(A) during grading activities and up to 80 dB(A) if pile driving is required. In addition, the church could experience attenuated noise levels of up to 69.5 dB(A) during demolition. Construction noise is typically of limited duration and restricted to daytime hours. However, it is possible that services or other activities could take place at the church during the day while construction activities are occurring nearby. This represents a potentially significant impact.

The single-family residences to the north could experience attenuated noise levels of up to 81 dB(A) during grading activities. Although no construction activities that could require pile driving would occur in close proximity of these residences, construction activities that could require pile driving are located approximately 1,000 feet to the southeast. At this distance, attenuated noise levels of up to 75.5 dB(A) could be experienced at these residences. In addition, these residences could experience attenuated noise levels of 69.5 dB(A) during demolition. This represents a potentially significant impact.

Montgomery Park to the east could experience attenuated noise levels of up to 90 dB(A) during grading activities. Although no construction activities that could require pile driving would occur in close proximity of the park, construction activities that could require pile driving would be located approximately 700 feet to the southwest. At this distance, attenuated noise levels of up to 78.5 dB(A) could be experienced at the park. In addition, park users could experience attenuated noise levels of 72.5 dB(A) during demolition. As the park is used in the daytime hours when construction would be occurring, this represents a potentially significant impact.

It is also possible that two or more facilities included in the 2025 Updated FMP could be under construction at the same time. In some instances, the noise generated during the construction of these projects could combine to affect off-site sensitive receptors. For example, construction occurring simultaneously on both the central portion of campus and on New Parking Lot B could combine and negatively affect the church located along the southern boundary of the campus. This represents a potentially significant impact.

Noise generated by construction activity occurring simultaneously on the central portion of campus and on New Parking Lot C or New Parking Lot A would not negatively affect residences to the north or Montgomery Park to the east, as construction in the central portion of the campus (i.e., demolition of the Roble and Acacia clusters, General Education buildings, Math/Science buildings, Applied Tech, and Fitness Center) would be located at least 700 to 1,000 feet from these uses. This represents a less than significant impact.

The Campus would implement several mitigation measures that would minimize construction noise impacts to on-campus locations and off-site sensitive receptors. **Mitigation Measure NOI-4a** is proposed to limit construction to the daytime period. **Mitigation Measure NOI-4b** is proposed to further reduce significant noise impacts from construction activities.

Mitigation Measures:

MM NOI-4a: Construction activities on the campus shall be restricted to between the hours of 7:00 AM and 7:00 PM on weekdays and Saturdays and 10:00 AM to 6:00 PM on Sundays and holidays.

MM NOI-4b: Prior to initiation of campus construction, the Campus shall approve a construction noise mitigation program including but not limited to the following.

- All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with exhaust mufflers and air-inlet silencers where appropriate, in good operating condition that meet or exceed original factory specification.
- Mobile or fixed "package" equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.

- All mobile or fixed noise producing equipment used on the project, which is regulated for noise output by local, state or federal agency, shall comply with such regulation while engaged in project-related activities.
- Material stockpiles and mobile equipment staging, construction vehicle parking and maintenance areas shall be located as far as practicable from noise-sensitive land uses.
- Stationary noise sources such as generators or pumps shall be located away from noise-sensitive land uses as feasible.
- The use of noise-producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only. No project-related public address loudspeaker, two-way radio, or music system shall be audible at any adjacent noise-sensitive receptor except for emergency use.
- The erection of temporary noise barriers shall be considered where project activity is unavoidably close to noise-sensitive receptors.
- Construction vehicle trips shall be routed as far as practical from existing sensitive uses.
- The loudest campus construction activities, such as demolition and pile driving, shall be considered for scheduling during academic breaks when fewer people would be disturbed by construction noise.
- Whenever possible, academic, administrative, and sensitive use areas that will be subject to construction noise shall be informed prior to the start of each construction project.

Significance after Mitigation: These measures would reduce impacts to on-site and off-site sensitive receptors, but not to a less than significant level. This impact would be significant and unavoidable.

Impact NOI-5: **Construction on the campus pursuant to the 2025 Updated FMP could generate and expose persons on campus to excessive groundborne vibration, although it would not expose off-campus receptors to excessive groundborne vibrations.**

Level of Significance: Potentially significant

Vibration velocity levels for the types of construction equipment that would be used on the campus during demolition construction were previously identified in **Table 4.8-3**. Demolition and construction activities would primarily affect existing buildings within the campus. These buildings could sometimes be as close as 25 feet to the construction site or as far as several hundred feet away. The primary and most intensive vibration source associated with development under the 2025 Updated FMP would be the use of bulldozers during demolition and construction. The use of pile drivers (if necessary) during construction would also result in intense vibration. Based on the information presented in **Table 4.8-3**, vibration levels could reach up to 87 VdB at the buildings located within 25 feet of demolition and construction not involving pile driving and 93 VdB at buildings located within 25 feet of construction involving pile driving. This would exceed the 83 VdB threshold for institutional buildings and would be considered a potentially significant impact. Where demolition and construction occur more than 50 feet from campus classroom buildings and where construction involving pile driving occurs more than 75 feet from campus classroom buildings, the vibration level would be below the threshold and no impact would occur.

With respect to off-campus receptors, with the exception of the residential uses located to the north beyond Evergreen Creek and Montgomery Hill Park to the east, all of off-campus receptors are located far enough from the campus as to not be negatively affected by vibration generated by demolition and construction activity on campus including pile driving. Single-family residential uses to the north are located at least 150 feet from the nearest potential construction site while Montgomery Hill Park is located at least 100 feet from the nearest potential construction site. Based on the information presented in **Table 4.8-3**, vibration levels from on-campus demolition and construction activities not including pile driving would be less than 75 VdB at sensitive uses located along the northern boundary of the project site, which is below the threshold of 80 VdB for residential uses. The nearest construction activity involving pile driving would be at 1,000 feet away from these residential uses. As a result, these residential uses are located far enough away from the campus as to not be negatively affected by construction activities on the campus, including those involving pile driving. Concerning vibration impacts at Montgomery Hill Park, parks are not considered vibration sensitive, and vibration form construction activity on campus would be perceptible only along the park's far western boundary.

Heavy trucks would continue to transport materials to and from the campus when construction activities occur. These trucks typically generate groundborne vibration velocity levels of around 63 VdB. These levels could reach 72 VdB where trucks pass over bumps in the road. In both instances, the resulting groundborne vibration velocity levels would be less than the 80 VdB vibration impact threshold for residential uses and the 83 VdB threshold for institutional uses. Therefore, construction associated with the implementation of the 2025 Updated FMP would not expose off-campus persons to excessive groundborne vibration levels, and this impact would be less than significant.

The Campus would implement a mitigation measure that would avoid construction vibration impacts to on-campus locations. **Mitigation Measure NOI-5** is proposed to limit construction close to classroom buildings to weekends or during periods when instruction in not ongoing on the campus when feasible.

Mitigation Measures:

MM NOI-5: Pile driving activities that could result in vibration and are within 75 feet of a classroom building and demolition and construction activities with no pile driving that could result in vibration and are within 50 feet of a classroom building will be scheduled to occur on weekends or during periods when instruction is not occurring on the campus when feasible. If pile driving activities within 75 feet of a classroom building and demolition and construction activities within 50 feet of a classroom building are scheduled to occur during periods when instruction is occurring on the campus, a notice shall be posted in the vicinity of the affected classroom buildings notifying the campus community of the upcoming construction activities.

Significance after Mitigation: This measure would reduce the impact to on-site sensitive receptors, but not to a less than significant level. This impact would be significant and unavoidable.

4.8.4.5 Cumulative Impacts and Mitigation Measures

To present the impacts from the development envisioned under the 2025 Updated FMP, the analysis presented above evaluates buildout of the campus in 2025. **Impact NOI-2** evaluates the traffic noise that would result from growth in traffic from approved but not yet constructed developments in the project study area, plus traffic generated by pending developments combined with the growth in traffic due to campus development under the 2025 Updated FMP. The analysis in **Impact NOI-2** thus presents the cumulative traffic noise impact, including the noise from traffic added by the proposed project. Under 2025 conditions, with increases in traffic from both projected development in the project area and implementation of the 2025 Updated FMP, increases in noise levels would be above the City's 3 dB(A) or greater standard. This cumulative traffic noise impact would be significant and unavoidable, as no feasible mitigation is available to reduce this impact. However, as shown in **Table 4.8-5**, campus development would not by itself contribute enough traffic to cause increases in noise levels above the City's 3 dB(A) or greater standard. Therefore, the contribution of the project to this impact is not cumulatively considerable.

With respect to cumulative construction noise and vibration impacts, those could occur if projects proposed by others were to be under construction at the same time as projects on the EVC campus and if these concurrent projects would be in close proximity of the same sensitive receptor. There are other projects proposed that would be in the vicinity of the same sensitive receptors as the projects on the EVC campus. As discussed in **Impact NOI-5**, vibration during construction on the EVC campus would not negatively affect nearby sensitive receptors. However, as discussed in **Impact NOI-4**, even with mitigation, noise during construction on the EVC campus could negatively affect nearby sensitive receptors. However, the nearest cumulative projects to campus are approximately 1,000 feet to the east and south. Given this distance, construction noise one campus would not combine with construction noise from other cumulative projects to result in a significant cumulative noise impact.

Similarly, in order for the on-site stationary noise (parking lots, HVAC equipment, athletic fields, etc.) associated with new development envisioned under the 2025 Updated FMP to cumulate with noise from other stationary noise sources, the noise sources would need to be in close proximity to the same sensitive receptor. There are other projects proposed that would be in the vicinity of the same sensitive receptors as the projects on the EVC campus. As discussed in **Impact NOI-3**, noise from stationary sources on the EVC campus would not negatively affect nearby sensitive receptors, and since the nearest cumulative projects are approximately 1,000 feet to the east and south, stationary noise on campus would not combine with stationary noise from other cumulative projects to result in a significant cumulative noise impact.

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4.9 PUBLIC SERVICES

4.9.1 INTRODUCTION

This section evaluates the potential impacts from campus development under the 2025 Updated Facilities Master Plan (FMP) on public services, including fire services, campus police services, and recreational facilities. The analysis is based on information provided by the City of San José Fire Department (SJFD) and San José/Evergreen Community College District (SJECCD) Police Department, and information contained in the Envision San José 2040 General Plan. The California State Fire Marshal and SJECCD Police maintain ultimate review and approval authority over aspects of the proposed project that relate to fire and law enforcement, respectively. The two minor projects proposed by the campus would install pre-fabricated metal covers over the existing corporation yard and along the edge of an existing parking lot, and bleachers on the eastern side of the soccer field. These improvements would have no effect on public services and are not evaluated further in this section.

No public or agency comments related to public services were received in response to the Notice of Preparation (NOP) issued for this EIR.

4.9.2 ENVIRONMENTAL SETTING

4.9.2.1 Study Area

For purposes of evaluating the impacts of the 2025 Updated FMP on public services, the study area is defined to include all of the Evergreen Valley College (EVC) campus, the immediate vicinity of the campus, and the City of San José, as relevant to the topic being evaluated. The term "campus" encompasses the entire 158-acre campus.

4.9.2.2 Fire Protection

The SJFD provides fire protection services to the City of San José, including the EVC campus. The SJFD currently has 665 authorized sworn personnel, 44 non-sworn uniformed Fire Communication Dispatchers, and 61 civilian personnel. Equipment at the SJFD includes 30 engine companies, nine truck companies, an Urban Search and Rescue company, and a Hazardous Incident team (SJFD 2012a).

SJFD Station No. 11 is the primary response unit for the campus, and responds to all campus fire- and rescue-related emergencies. Station No. 11 is located south of the campus at 2840 The Villages Parkway. Station No. 11 has one engine company equipped with a fire hose and staffed with four persons.

In fiscal year 2007-2008, the SJFD responded to approximately 52,400 calls for service within its service area. Of the total, 81 percent were medical calls, 8 percent were fire-related calls, and 11 percent were other types of calls (such as search and rescue). Fire Station No. 11 responded to about 700 calls for service in fiscal year 2007-2008. Of that total, 87 percent were medical calls, 4 percent were fire-related calls, and 9 percent were other types of calls (SJFD 2012b).

The SJFD has a response time goal of 4 minutes (travel time) or less for 80 percent of all emergency calls. In fiscal 2007–2008, response times department-wide for emergency calls were at or under 4 minutes 67.5 percent of the time (City of San José 2011).

4.9.2.3 Police Services

Police services are provided to the EVC campus by the SJECCD Police Department. The SJECCD Police Department provides police services to both the EVC campus and the San José City College (SJCC) campus through on-site campus police stations. A Memorandum of Understanding (MOU) between the SJECCD Police Department and the San José Police Department (SJPD) states that the SJPD is available to provide law enforcement assistance when necessary.

The EVC campus is patrolled by a single patrol officer during the following hours: - 7:00 AM until 11:00 PM, Monday through Saturday, 7:00 AM to 3:00 PM on Sundays, and 8:00 AM to 4:00 PM during holidays. The SJPD responds to emergencies on the campus during all other times when notified of an incident or a crime is in progress (Aguirre 2012).

The existing EVC campus police station is co-located with the Central Energy Plant in the southeastern portion of the campus. Renovation of this facility will occur in 2015 and a temporary facility located in the southwestern portion of the campus would be used during this time. The station is open Monday through Saturday from 7:00 AM to 11:00 PM, and Sunday from 7:00 AM to 3:00 PM. It is staffed by a radio dispatcher and other police personnel. The radio dispatcher at the EVC campus answers calls between 3:00 PM and 11:00 PM, Monday through Saturday and from 7:00 AM to 3:00 PM on Sundays (Aguirre 2012).

The SJECCD Police Department currently has 16 employees, including four full-time sworn police officers, four part-time sworn police officers, three dispatchers, one full-time parking services/community services officer, and three part-time parking services/community services officers. Equipment includes five marked police vehicles, two unmarked staff cars, two community service officer/parking vehicles, and three marked electric cars (Aguirre 2012).

The SJECCD Police Department does not have a formal response time goal nor does it utilize other criteria to determine service impacts associated with new development. Response times at the EVC campus vary and depend on the situation and proximity of the police officer to the location of the situation. As a result, response times can range from a minute to 15 minutes. Federal law requires notification to the community "within a reasonable amount of time." The SJECCD Police Department has emergency text, voice, and email notification in place and provides notification within 20 to 30 minutes of the incident being reported (Aguirre 2012).

4.9.3 REGULATORY SETTING

4.9.3.1 California State Office of the Fire Marshal

The California State Fire Marshal is responsible for review and approval of all capital construction projects on community college campuses and other educational institutions, including renovations and new construction. Review is conducted to verify compliance with California Code of Regulations Title 19; Title 24, Part 9, California Fire Code (CFC); and Title 24, Part 2, California Building Code (CBC). Facility construction documents are required to be submitted to the office for approval and granting of final occupancy.

4.9.4 IMPACTS AND MITIGATION MEASURES

4.9.4.1 Standards of Significance

In accordance with Appendix G of the *2013 California Environmental Quality Act (CEQA) Guidelines*, the impact of campus development under the 2025 Updated FMP on public services would be considered significant if it would:

- result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for
  - fire protection,
  - police protection,
  - schools, and
  - parks.

4.9.4.2 Issues Not Discussed Further

The analysis in the Initial Study prepared for the proposed project and circulated with the NOP concluded that further analysis of the following issues was not required in the EIR.

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools.

No residential uses are associated with the 2025 Updated FMP. Therefore, future development on the campus would not result in a direct impact on schools due to an increase in residential population. New students, faculty, and staff associated with the 2025 Updated FMP would likely be living in the surrounding communities or in the wider Bay Area at the time of enrollment or hire. To the extent that new students or employees move into Bay Area communities to study or work at the college, their numbers would not be large and would not add a substantial number of school age students to any one community. This impact is considered less than significant.

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks.

No residential uses are associated with the 2025 Updated FMP. Therefore, future development on the campus would not result in a direct impact on parks due to an increase in residential population. Three parks are located in the immediate vicinity of the campus. Due to their proximity, it is possible that some students, faculty, and staff could use these facilities. However, existing recreational facilities are located on the campus and future recreational facilities identified in the 2025 Updated FMP would be available to meet the needs of the campus population. Therefore, any increase in the use of off-campus parks is expected to be minimal and the impact of the campus population on existing parks near the campus would be less than significant.

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities.

No residential uses are associated with the 2025 Updated FMP. Therefore, future development on the campus would not result in a direct impact on other public facilities such as libraries due to an increase in residential population. The closest off-campus library is located approximately 2 miles from the campus. Given that there are a campus library and other resources on the campus, it is unlikely that students, faculty, and staff would use this off-campus facility. For these reasons, the impact on public libraries would be less than significant.

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Given the presence of existing recreational facilities on the campus and the construction of additional recreational facilities identified in the 2025 FMP, the increase in campus population under the 2025 FMP would not result in an increase in the use of existing neighborhood and regional parks or other recreational facilities. Therefore, it would not cause substantial physical deterioration of existing park facilities to occur or be accelerated. Therefore, the impact on existing neighborhood and regional parks would be less than significant.

- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

The 2025 Updated FMP proposes some changes to the on-campus sports facilities, including demolition of the racquetball court, use of the northern portion of the multi-use athletic field for new instructional facilities, and a proposed Fitness Center. The campus also proposes the installation of bleachers on the soccer field. The potential physical impacts of these improvements included in the 2025 Updated FMP are addressed in the analysis in the Initial Study and in **Sections 4.1 Aesthetics, 4.2 Air Quality, 4.5 Greenhouse Gas Emissions, 4.7 Land Use and Planning,** and **4.8 Noise** of this Draft EIR.

4.9.4.3 Methodology

Implementation of the 2025 Updated FMP would result in increased demand for public services. Impacts to public services are evaluated by comparing existing and projected demands for services and the resulting need, if any, for new, expanded, or modified facilities to serve the increased demand. Under CEQA, impacts are typically considered significant if a project would require new or expanded service facilities that would result in significant environmental impacts.

4.9.4.4 Project Impacts and Mitigation Measures

Impact PUB-1: **Implementation of the 2025 Updated FMP would not require the construction of new or physically altered fire protection facilities, which could cause significant environmental impacts.**

Level of Significance: Less than significant

The EVC campus currently receives fire protection and emergency medical services from the SJFD. Implementation of the 2025 Updated FMP would result in the addition of approximately 2,860 students to the campus. The incremental increase in the campus population is expected to result in additional calls for service, thus increasing response times. To maintain adequate response times, additional personnel and equipment may be required. However, according to the SJFD, the need for new or expanded fire facilities in the City of San José to house additional equipment and personnel is not anticipated at this time (Jacobson 2012). As no new fire station or an expansion of an existing fire station would be needed, there would be no potential for significant environmental impacts from the construction of new or expanded facilities. Therefore, the impact related to the provision of fire services to the EVC campus would be less than significant.

Mitigation Measure: No mitigation is required.

Impact PUB-2: **Implementation of the 2025 Updated FMP would require the construction of new or physically altered law enforcement facilities. However, construction of the facilities would not result in significant environmental impacts.**

Level of Significance: Less than significant

Law enforcement services on the EVC campus are primarily provided by the SJECCD Police Department and the SJPD provides additional service to the campus under the existing MOU. As noted above, implementation of the 2025 Updated FMP would result in approximately 2,860 additional students on campus. The incremental increase in the campus population may result in additional calls for service, thus increasing response times. To maintain adequate response times, additional personnel and equipment may be required. The 2025 Updated FMP includes plans to renovate and expand the existing police facility on campus, including a secure parking lot, to provide enough space to meet the needs of the department. The physical environmental impacts of the proposed police station expansion are evaluated in this Draft EIR and impacts would be reduced to a less than significant level by the mitigation measures included in this Draft EIR. Therefore, the physical environmental impacts resulting from the construction of the expanded police facility would be less than significant.

The SJECCD Police Department and SJPD would continue to operate under the existing MOU. This would result in continued collaboration in providing adequate law enforcement services on and around the EVC campus. Although it appears unlikely that expansion of SJPD facilities would be needed in the future, to the extent an expansion of the SJPD facilities is required, the expansion would be unlikely to result in significant environmental effects given the urban setting of the City. This is confirmed in the City's General Plan EIR, which notes that while growth under the Envision San José 2040 General Plan would result in an increase in calls for service and may require the need for expansion of existing police facilities or the location of new facilities within planned growth areas, the construction of new police facilities is not anticipated to have significant adverse environmental impacts (City of San José 2011).

In summary, while it is expected that the SJPD would be able to provide adequate law enforcement services from existing facilities, the SJECCD Police Department would require an expanded facility on the EVC campus. However, construction of the facility is not expected to result in significant environmental impacts as these impacts would be reduced to a less than significant level by the mitigation measures included in this Draft EIR. The impact related to law enforcement would be less than significant.

Mitigation Measure: No mitigation is required.

4.9.4.5 Cumulative Impacts and Mitigation Measures

As described in **Section 4.0**, **Environmental Impact Analysis**, the cumulative impact analysis is based on a list of approved and pending projects in the City of San José. Implementation of the 2025 Updated FMP, along with buildout of approved and pending projects in the City, would increase the demand for fire and law enforcement services. While growth under the Envision San José 2040 General Plan, which includes approved and pending projects in the City, would result in an increase in calls for fire service, it is not anticipated to result in the need for construction of fire stations in excess of those currently planned. In addition, while growth under the Envision San José 2040 General Plan would result in an increase in calls for police service and may require the need for expansion of existing police facilities or the location of new facilities within planned growth areas, the construction of new police facilities is not anticipated to have significant adverse environmental impacts (City of San José 2011). As discussed in the analyses above, impacts to fire service and law enforcement from campus development under the 2025 Updated FMP would be less than significant. Therefore, the contribution of the proposed project to this cumulative impact would not be cumulatively considerable.

4.9.5 REFERENCES

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4.10 TRANSPORTATION AND TRAFFIC

4.10.1 INTRODUCTION

This section of the Draft EIR describes the transportation and circulation conditions in the area surrounding the Evergreen Valley College (EVC) campus and identifies transportation impacts associated with the development of the EVC campus under the 2025 Updated Facilities Master Plan (FMP). The analysis focuses on potential impacts to intersections and roadway segments, pedestrian and bicycle facilities, and transit service. Significant impacts are quantified and mitigation measures are identified to address these impacts, as necessary. All technical analyses related to the study are included in **Appendix 4.10.** The two minor projects proposed by the Campus would install prefabricated metal covers over the existing corporation yard and along the edge of an existing parking lot, and bleachers on the eastern side of the soccer field. These improvements would have no effect on traffic and transportation and are not evaluated further in this section.

Public and agency comments related to transportation and traffic received in response to the Notice of Preparation (NOP) issued for this EIR are summarized below.

- A Traffic Impact Study (TIS) or lesser level of analysis may be required to assess the impact of the 2025 Updated FMP on the adjacent traffic network, with specific attention to US 101 if there are traffic impacts. It is recommended that the Caltrans *Guide for the Preparation of Traffic Impact Studies (TIS Guide)* be used to determine which scenarios and methodologies should be included in the TIS. Items to include in the TIS include were also suggested by the commenter.

- Secondary impacts on pedestrians and bicyclists resulting from any traffic impact mitigation measures should be analyzed.

- Travel Demand Management (TDM) policies to encourage usage of nearby public transit lines and reduce vehicle trips on the State Highway System should be developed by the EVC campus.

- A Transportation Impact Analysis (TIA) should be completed for the 2025 Updated FMP.

- The San José/Evergreen Community College District (SJECCD) should consider providing discounted transit passes on a continuing basis to students and employees.

All applicable comments were considered in the analysis presented below. At this time, the San José Community College (SJCC) campus does not have a TDM plan to encourage the use of public transportation nor does it provide discounted transit passes to students and faculty.

4.10.2 ENVIRONMENTAL SETTING

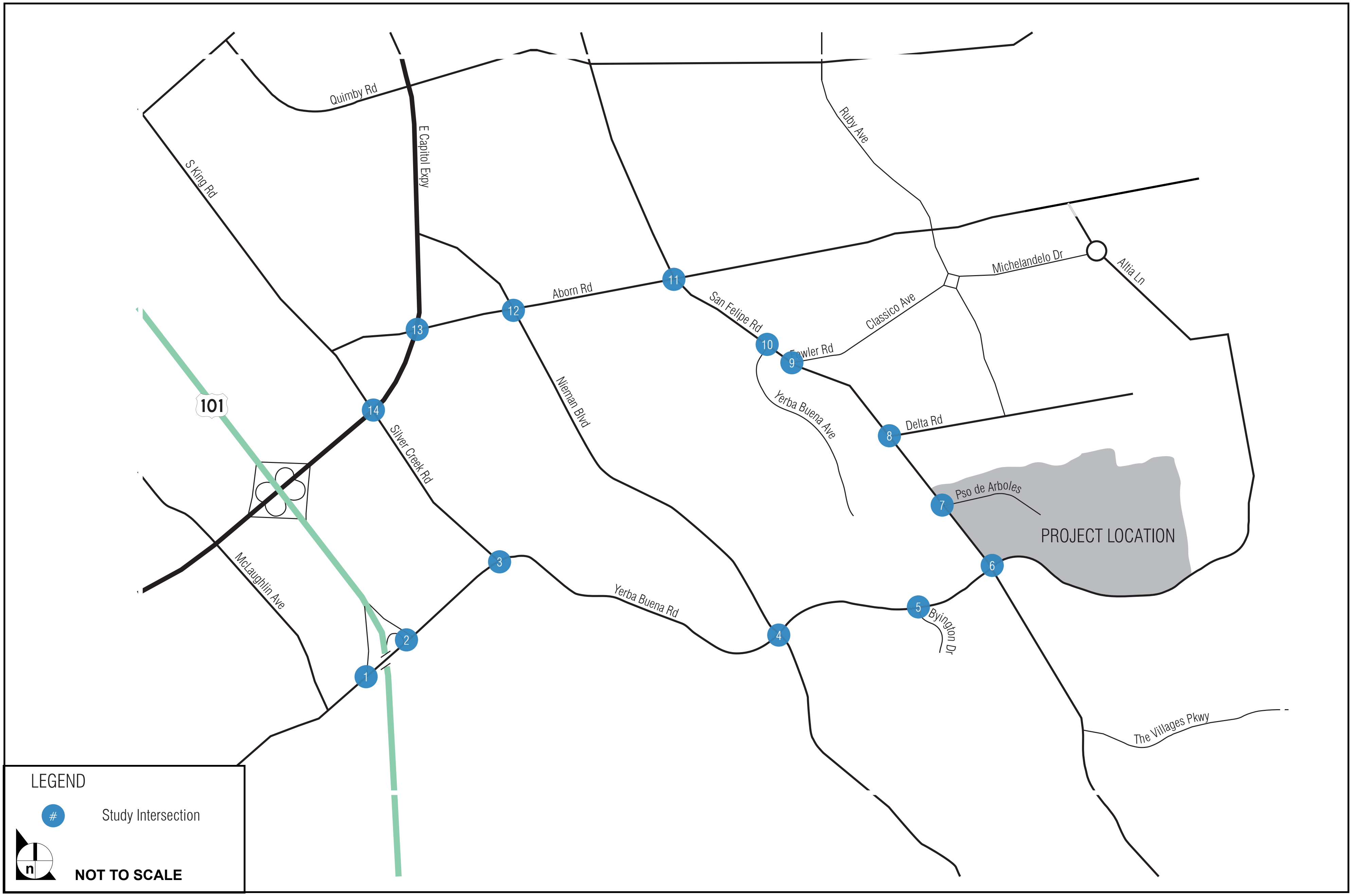
Figure 4.10-1, Project Location, Study Intersections, and Freeway Study Segments presents the project location, surrounding roadway system, study intersections, and freeway study segments. The EVC campus is located in east-central San José, California. The campus is near the eastern City boundary and is bounded by San Felipe Road to the west, Yerba Buena Road to the south, Montgomery Hill Park to the east, and Falls Creek Drive to the north.

4.10.2.1 Project Study Area

Study Intersections

Project impacts were estimated following the guidelines of the City of San José and the Santa Clara Valley Transportation Authority (VTA), which is the congestion management agency for Santa Clara County. The analysis evaluated the operations of the following key intersections, which were selected based on the amount of new traffic that could be added to the intersection by the proposed project: (Designated Congestion Management Program [CMP] intersections are marked with an asterisk.)

1. US 101 SB Off-ramp/Yerba Buena Road*
2. US 101 NB Off-ramp/Yerba Buena Road*
3. Silver Creek Road/Yerba Buena Road
4. Nieman Boulevard/Silver Creek Valley Road/Yerba Buena Road
5. Byington Drive/Yerba Buena Avenue/Yerba Buena Road
6. San Felipe Road/Yerba Buena Road
7. Paseo de Arboles/San Felipe Road
8. Delta Road/San Felipe Road
9. Fowler Road/San Felipe Road
10. San Felipe Road/Yerba Buena Avenue
11. Aborn Road/White Road/San Felipe Road
12. Aborn Road/Nieman Boulevard
13. East Capitol Expressway/Aborn Road*
14. East Capitol Expressway/Silver Creek Road*



SOURCE: Fehr & Peers

FIGURE **4.10-1**

Project Location, Study Intersections, and Freeway Study Segments

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Freeway Segments

The analysis also evaluated the operations of the following key freeway segments:

1. US 101, between Silver Creek Valley Road and Hellyer Avenue
2. US 101, between Hellyer Avenue and Yerba Buena Road
3. US 101, between Yerba Buena Road and East Capitol Expressway
4. US 101, between East Capitol Expressway and Tully Road

4.10.2.2 Traffic Analysis Methods

The operations of roadway facilities are described with the term level of service (LOS). LOS is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels of operating conditions are defined, from LOS A (best) to LOS F (worst). LOS E represents "at-capacity" operations. Operations are designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions.

The City of San José has established a minimum acceptable operating level of LOS D for all intersections, including CMP designated intersections. VTA accepts LOS E as the minimum acceptable level for CMP-designated intersections.

Signalized Intersections

The level of service methodology approved by the City of San José, VTA, and the California Department of Transportation (Caltrans) analyzes a signalized intersection's operation based on average control delay for vehicles using the method described in Chapter 16 of the 2000 Highway Capacity Manual (HCM) by the Transportation Research Board, with adjusted saturation flow rates to reflect Santa Clara County conditions. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for signalized intersections is calculated using TRAFFIX analysis software and correlated to an LOS designation as shown in **Table 4.10-1, Signalized Intersection Level of Service Definitions Using Average Control Vehicular Delay**.

Table 4.10-1
Signalized Intersection Level of Service Definitions
Using Average Control Vehicular Delay

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B+ B B-	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 12.0 12.1 to 18.0 18.1 to 20.0
C+ C C-	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 23.0 23.1 to 32.0 32.1 to 35.0
D+ D D-	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0 39.1 to 51.0 51.1 to 55.0
E+ E E-	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.1 to 60.0 60.1 to 75.0 75.1 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0

Source: Traffic Level of Service Analysis Guidelines, VTA Congestion Management Program, June 2003; Highway Capacity Manual, Transportation Research Board, 2000.

Freeway Segments

Freeway segments are evaluated using VTA's analysis procedure, which is based on the density of the traffic flow using methods described in the 2000 HCM. Density is expressed in passenger cars per mile per lane. The Congestion Management Program range of densities for freeway segment level of service is shown in **Table 4.10-2, Freeway Segment Level of Service Definitions**. The Caltrans LOS standard for the freeway segments is LOS E.

Table 4.10-2
Freeway Segment Level of Service Definitions

Level of Service	Density (passenger cars per mile per lane)
A	≤ 11
B	11.1 to 18.0
C	18.1 to 26.0
D	26.1 to 46.0
E	46.1 to 58.0
F	> 58.0

Source: Traffic Level of Service Analysis Guidelines, VTA Congestion Management Program, June 2003; Highway Capacity Manual, Transportation Research Board, 2000.

4.10.2.3 Existing Roadway Facilities

Regional Access

Highway 101

Highway 101 (US 101) is a north-south freeway west of the EVC campus extending north to downtown San José and San Francisco and south towards Gilroy. The freeway provides three mixed-flow lanes and one carpool lane in each direction near the EVC campus. The carpool lane is open to mixed-flow traffic outside of the peak periods. The surface roadways leading to the EVC campus are accessible via ramps at Yerba Buena Boulevard.

East Capitol Expressway

East Capitol Expressway is a radial arterial roadway northwest of the EVC campus that connects State Route (SR) 87, US 101, and Interstate 680 (I-680). The roadway bypasses the SR 87/I-280 and US 101/I-680 interchanges to the south. In the vicinity of the EVC campus, East Capitol Expressway has four travel lanes in each direction.

Local Access

Yerba Buena Road

Yerba Buena Road is an east-west, four-lane arterial roadway bordering the southern edge of the EVC campus. Yerba Buena Road provides the primary connection to US 101 to the west. It also extends to the northeast, where it terminates at Fowler Road.

San Felipe Road

San Felipe Road is a north-south, four-lane arterial roadway bordering the western edge of the EVC campus. It connects to Aborn Road to the north. North of Aborn Road, San Felipe Road becomes South White Road. To the south, the roadway extends into a rural area beyond the City limit.

Aborn Road

Aborn Road is an east-west, two- to six-lane arterial roadway that runs parallel to Yerba Buena Road north of the EVC campus. Aborn Road provides six lanes between East Capitol Expressway and Mosher Drive, which is approximately 1.5 miles east of San Felipe Road.

Internal circulation

Internal circulation on the EVC campus is facilitated by Paseo de Arboles and Valle del Lago and within campus parking lots. There are no direct roadways that connect the west side to the east side of the campus, although a narrow emergency access road that winds around the northeast edge of the central campus area connects the eastern and western parking lots.

4.10.2.4 Existing Pedestrian and Bicycle Facilities

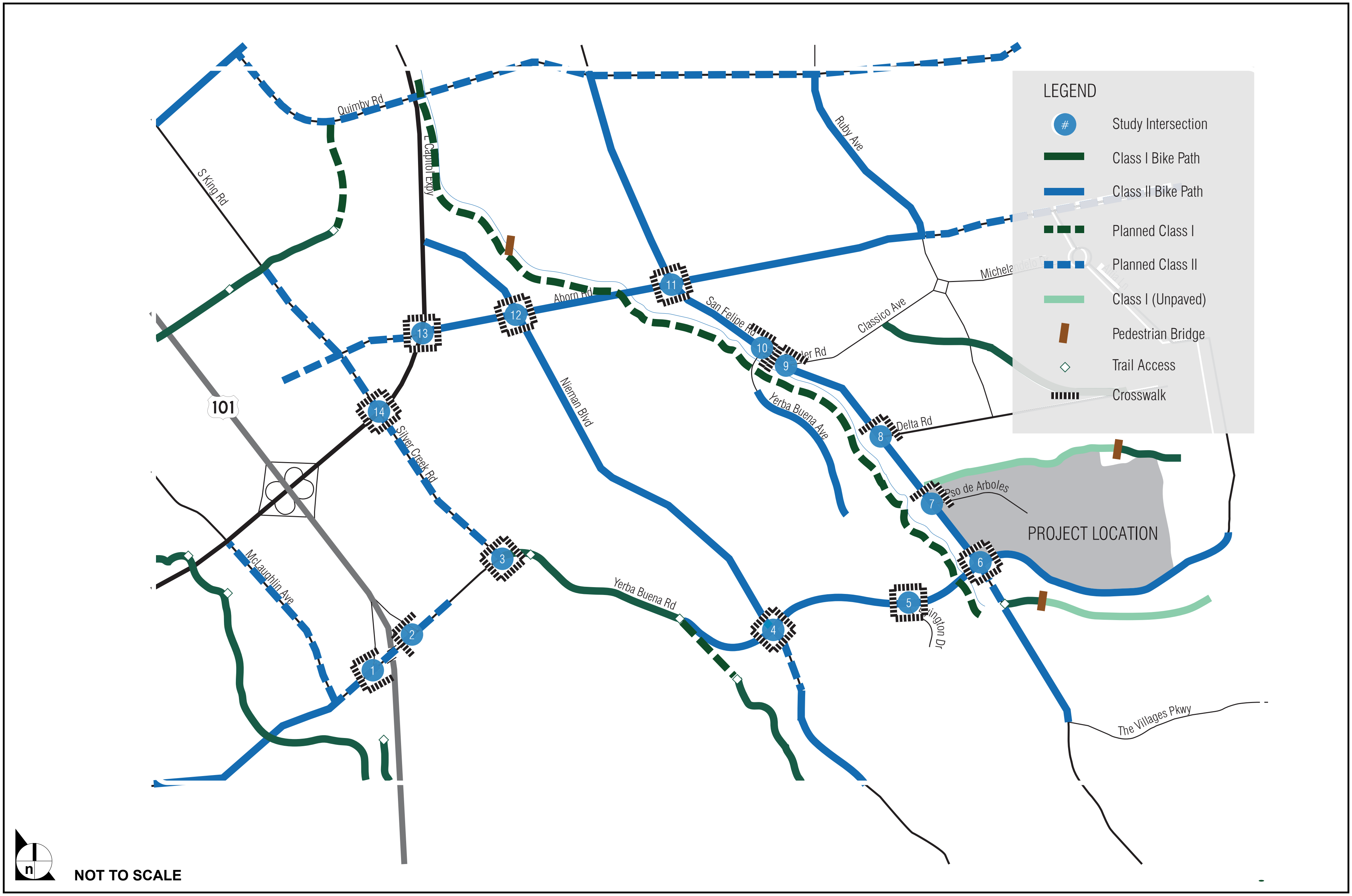
Pedestrian Facilities

Pedestrian facilities consist of sidewalks, crosswalks, pedestrian signals, and off-street paths. Sidewalks in the study area are generally consistent and continuous along surrounding roadways on both sides of the street with the exception of the following locations:

- The south side of Yerba Buena Road east of San Felipe Road
- The west side of San Felipe Road, where the sidewalk is discontinuous in several locations to the north and south of Yerba Buena Road

Separated paths are provided along Paseo de Arboles from the EVC campus to San Felipe Road. Crosswalks and pedestrian signals are located at the signalized intersections within the study area. Existing pedestrian facilities are shown on **Figure 4.10-2, Existing Pedestrian and Bicycle Facilities**.

On-campus pedestrian facilities consist of paths connecting buildings to each other and to parking lots. These paths on a campus provide for pedestrian connectivity and usually require bicyclists to walk their bicycles. All on-campus pedestrian circulation is provided by the use of pedestrian walkways/paths.



SOURCE: Fehr & Peers

FIGURE **4.10-2**

Existing Pedestrian and Bicycle Facilities

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Bicycle Facilities

Bicycle facilities include the following:

- *Bike paths (Class I)* – Paved trails that are separated from roadways.
- *Bike lanes (Class II)* – Lanes on roadways designated for use by bicycles through striping, pavement legends, and signs.
- *Bike routes (*Class *III)* –Roadways designated for bicycle use by signs only; may or may not include additional pavement width for cyclists.

Figure 4.10-2 presents existing bicycle facilities in the study area. A Class I bicycle path is located along Evergreen Creek. Access to the trail is provided on the north side of the EVC campus and it extends between San Felipe Road and Yerba Buena Road, although part of the path is unpaved. Class II bicycle lanes are located in both directions on San Felipe Road north of Yerba Buena Road, on Yerba Buena Road between the EVC campus and Silver Creek Road, and on Aborn Road between East Capitol Expressway and Ruby Avenue, providing key connections to surrounding land uses.

The City of San José Bicycle Plan identifies future bike lanes on many local roadways and a Class I bike path that would run parallel to San Felipe Road.

No separate bicycle facilities such as bike paths or lanes exist on the campus. As is typical of most college and university campuses, bicycle use is prohibited in the center of the campus. Bicycle parking is provided at a number of locations on the EVC campus via bike racks.

4.10.2.5 Existing Transit Service

VTA provides fixed-route bus service on 72 local routes in Santa Clara County, including routes serving the City of San José. VTA also operates light rail service in Santa Clara County. **Figure 4.10-3, Existing Transit Service** shows the existing transit facilities in the study area.

VTA bus stops for routes 31 and 39 provide transit service adjacent to the EVC campus. The campus has minimal transit service.

Route 31

Route 31 provides service between EVC and the Eastridge Transit Center, located on Capitol Expressway about 3 miles northwest of the campus. Service is provided weekdays between 6:00 AM and 10:30 PM on approximately 30-minute headways. Weekend service is provided on both Saturday and Sunday between 9:00 AM and 5:30 PM on 60-minute headways. Stops include EVC, the Aborn Road/South White Road intersection, the Silver Creek Road/East Capitol Expressway intersection, and the Eastridge Transit Center. These stops provide access to Silver Creek High School and Eastridge Shopping Center.

Route 39

Route 39 does not provide a direct connection to EVC. A stop is located approximately 0.75 mile south at Hounds Estates/The Villages Parkway intersection. Pedestrian access through the adjacent neighborhood is provided directly across from Valle del Lago. Service is provided weekdays between 6:30 AM and 7:30 PM on headways between 30 minutes and 60 minutes. Weekend service is provided on both Saturday and Sunday between 6:45 AM and 7:50 PM on similar headways. Stops include The Villages development, Ruby Avenue and Evergreen Village, the Quimby Road/Ruby Avenue intersection, and the Eastridge Transit Center. These stops provide access to the Evergreen Village Square, Evergreen Valley High School, Quimby Oaks Middle School, and Eastridge Shopping Center.

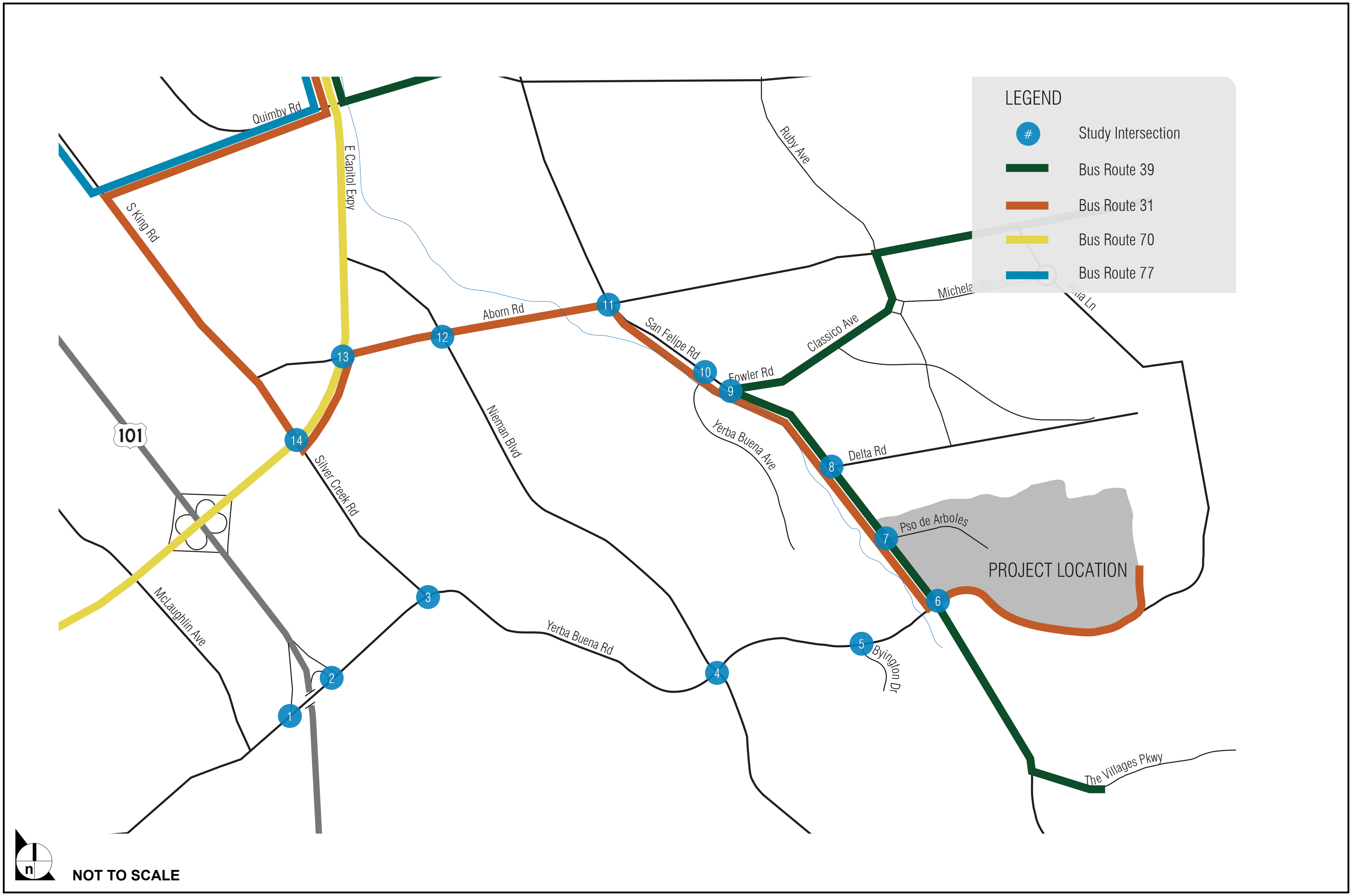
4.10.2.6 Existing Volumes and Lane Configurations

Study intersection operations were evaluated during the weekday AM and PM peak hours. Intersection operations were evaluated for the highest 1-hour volume counted between 7:00 AM and 9:00 AM and between 4:00 PM and 6:00 PM. Intersection turning movement counts were conducted in September 2011 when classes at the EVC campus were in session.

Figure 4.10-4, Existing Lane Geometries, Traffic Controls, and Peak Hour Intersection Volumes presents the existing AM and PM peak-hour turning movement volumes at the study intersections and the existing intersection lane configurations and traffic control devices.

Existing Intersection Levels of Service

Existing operations were evaluated for the weekday AM and PM peak hours at the study intersections, as summarized in **Table 4.10-3, Existing Intersection Levels of Service**, based on the turning movement volumes, lane configurations, and traffic controls shown on **Figure 4.10-4**. All study intersections currently operate at acceptable levels of service according to the standards set forth by the City of San José, VTA, and Caltrans, with the potential exception of the East Capitol Expressway/Aborn Road intersection, which operates at LOS E during the PM peak hour. As this intersection is a CMP intersection, LOS E is considered acceptable according to the VTA, although unacceptable under City of San José standards.



SOURCE: Fehr & Peers

FIGURE **4.10-3**

Existing Transit Service

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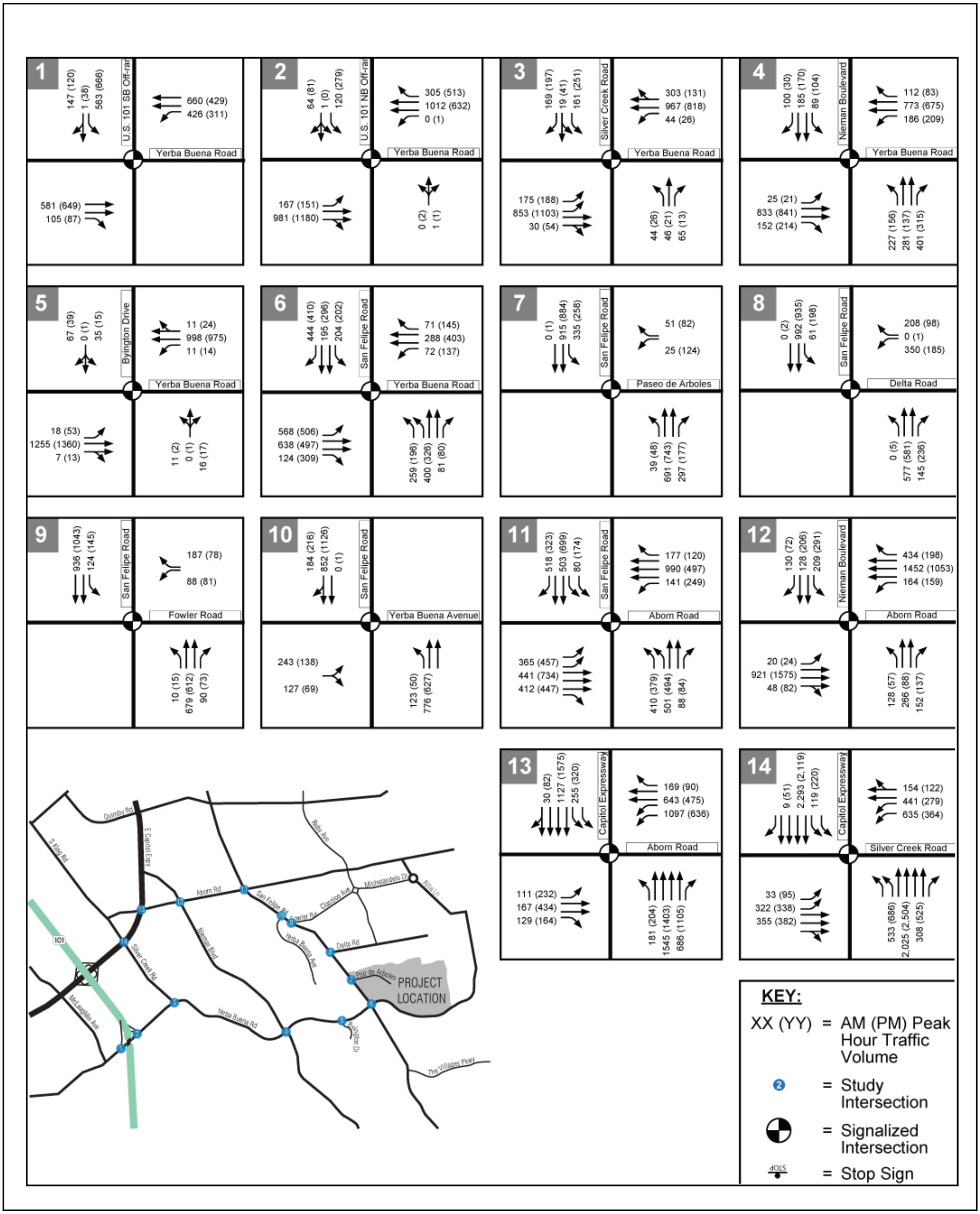

SOURCE: Fehr & Peers

FIGURE **4.10-4**

Existing Lane Geometries, Traffic Controls, and Peak Hour Intersection Volumes

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Table 4.10-3
Existing Intersection Levels of Service

Intersection	Traffic Control	Peak Hour	Delay[1] (Seconds)	LOS[2]
1. US 101 SB Off-Ramp & Yerba Buena Road*	Signal	AM PM	29.7 30.6	C C
2. US 101 NB Off-Ramp & Yerba Buena Road*	Signal	AM PM	15.2 16.6	B B
3. Silver Creek Road & Yerba Buena Road	Signal	AM PM	18.3 18.4	B- B-
4. Nieman Boulevard / Silver Creek Valley Road & Yerba Buena Road	Signal	AM PM	27.5 27.1	C C
5. Byington Drive / Yerba Buena Avenue & Yerba Buena Road	Signal	AM PM	9.6 8.1	A A
6. San Felipe Road & Yerba Buena Road	Signal	AM PM	38.1 37.8	D+ D+
7. Paseo de Arboles & San Felipe Road	Signal	AM PM	15.1 16.9	B B
8. Delta Road & San Felipe Road	Signal	AM PM	19.6 16.9	B- B
9. Fowler Road & San Felipe Road	Signal	AM PM	15.3 10.5	B B+
10. San Felipe Road & Yerba Buena Avenue	Signal	AM PM	20.8 19.6	C+ B-
11. Aborn Road & White Road / San Felipe Road	Signal	AM PM	48.2 49.2	D D
12. Aborn Road & Nieman Boulevard	Signal	AM PM	39.1 39.2	D D
13. East Capitol Expressway & Aborn Road*	Signal	AM PM	54.6 67.2	D- E
14. East Capitol Expressway & Silver Creek Road*	Signal	AM PM	54.5 52.0	D- D-

Source: Fehr & Peers, January 2012

1 *Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the* 2000 HCM, *with adjusted saturation flow rates to reflect Santa Clara County Conditions. Total control delay for the worst movement is presented for side-street stop-controlled intersections. Delay for the worst approach is reported for Unsignalized intersections.*

2 *LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.*

* *CMP Intersection*

4.10.2.7 Existing Freeway Segment Levels of Service

Freeway segment densities reported in VTA's 2007 Monitoring and Conformance Report were used to calculate the levels of service for the key freeway segments during the AM and PM peak hours. The results of the LOS analysis for Existing Conditions are presented in **Table 4.10-4, Existing Freeway Intersection Levels of Service**.

Table 4.10-4
Existing Freeway Intersection Levels of Service

Freeway	From	To	Number of Lanes: Mixed	Number of Lanes: HOV	Peak Hour	Density[1]: Mixed	Density[1]: HOV	Level of Service: Mixed	Level of Service: HOV
US 101 Northbound	Silver Creek Valley Road	Hellyer Avenue	3	1	AM PM	48 27	27 8	E D	D A
	Hellyer Avenue	Yerba Buena Road	3	1	AM PM	60 30	25 8	F D	C A
	Yerba Buena Road	East Capitol Expressway	3	1	AM PM	73 20	22 8	F C	C A
	East Capitol Expressway	Tully Road	3	1	AM PM	66 31	60 12	F D	F B
US 101 Southbound	Tully Road	East Capitol Expressway	3	1	AM PM	27 63	9 24	D F	A C
	East Capitol Expressway	Yerba Buena Road	3	1	AM PM	23 23	8 16	C C	A B
	Yerba Buena Road	Hellyer Avenue	3	1	AM PM	31 30	14 24	D D	B C
	Hellyer Avenue	Silver Creek Valley Road	3	1	AM PM	23 23	7 11	C C	A A

Source: Fehr & Peers, January 2012
[1] *Measured in passenger cars per mile per lane.*

The following segments of mixed-flow lanes operate at unacceptable levels (LOS F) according to VTA and Caltrans standards:

- Northbound US 101, between Hellyer Avenue and Yerba Buena Road (AM peak)
- Northbound US 101, between Yerba Buena Road and East Capitol Expressway (AM peak)
- Northbound US 101, between East Capitol Expressway and Tully Road (AM peak)
- Southbound US 101, between Tully Road and East Capitol Expressway (PM peak)

The following segment of high-occupancy lanes operates at an unacceptable level (LOS F):

- Northbound US 101, between East Capitol Expressway and Tully Road (AM peak)

4.10.3 REGULATORY SETTING

4.10.3.1 Envision San José 2040 General Plan

The proposed project would be located on land owned and operated by the San José/Evergreen Community College District (SJECCD). As a state entity, SJECCD is exempted by the state constitution from compliance with local land use regulations, including general plans and zoning. However, SJECCD seeks to cooperate with local jurisdictions to reduce any physical consequences of potential traffic conflicts to the extent feasible. As discussed above, the City of San José has established a minimum acceptable operating level of LOS D for all intersections (City of San José 2011).

Additional policies from the Envision San José 2040 General Plan (2011) that relate to transit, bicycle, and pedestrian facilities and activity are provided below.

Walking and Bicycling

Policy TR-2.2 Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments. Eliminate or minimize physical obstacles and barriers that impede pedestrian and bicycle movement on City streets. Include consideration of grade-separated crossings at railroad tracks and freeways. Provide safe bicycle and pedestrian connections to all facilities regularly accessed by the public, including the Mineta San José International Airport.

Policy TR-2.8 Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.

Public Transit

Policy TR-3.3 As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute toward transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities.

Policy TR-3.4 Maintain and improve access to transit stops and stations for mobility-challenged population groups such as youth, the disabled, and seniors.

4.10.4 IMPACTS AND MITIGATION MEASURES

4.10.4.1 Significance Criteria

In accordance with Appendix G of the *2013 California Environmental Quality Act (CEQA) Guidelines*, the impact of the proposed project related to transportation and traffic would be considered significant 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 due to 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.

Intersection Impact Significance Criteria

City of San José

According to the City's significance criteria, significant impacts at signalized San José intersections occur when project traffic causes one of the following:

- Operations degrade from an acceptable level (LOS D or better) under Existing Conditions to an unacceptable level (LOS E or F) under Existing Plus Project Conditions.
- Unacceptable operations (LOS E or F) are exacerbated by increasing the critical delay by more than 4 seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more.
- The V/C ratio increases by 0.01 or more at an intersection with unacceptable operations (LOS E or F) when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

Valley Transportation Authority

According to VTA significance criteria, significant impacts at CMP intersections occur when project traffic causes one of the following:

- Operations degrade from an acceptable level (LOS E or better) under Existing Conditions to an unacceptable level (LOS F) under Existing Plus Project Conditions.
- LOS F operations are exacerbated by increasing the critical delay by more than 4 seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more.
- The V/C ratio increases by 0.01 or more at an intersection with LOS F operations when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

Freeway Impact Significance Criteria

Significant impacts to freeway segments occur when the addition of project traffic causes one of the following:

- A segment drops below its acceptable CMP operating standard (LOS E)
- Unacceptable operations (LOS F) are exacerbated by adding traffic equal to more than 1 percent of a segment's capacity

4.10.4.2 Issues Not Discussed Further

The analysis in the Initial Study prepared for the proposed project and circulated with the NOP concluded that further analysis of the following issues was not required in the EIR.

- 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.

The 2025 Updated FMP does not include uses that would affect air traffic or result in changes to air patterns. There would be no impact with regard to this criterion.

4.10.4.3 Methodology

Trip Generation

The amount of traffic generated by the additional students was estimated by applying rates derived from driveway counts of the San José City College (SJCC) campus conducted in September 2007. It was assumed that driver behavior between the two campuses was similar on a per student basis. The rates were derived from student enrollment at the time of the survey, which was approximately 11,980 students. Trip generation rates per student were calculated for the AM and PM peak hours, as shown in **Table 4.10-5, Project Trip Generation Rates and Estimates**. The proposed project would increase the EVC student population by approximately 2,860 students, resulting in an approximately 3,980 new daily trips, 315 new AM peak-hour trips (251 inbound and 64 outbound) and 381 new PM peak-hour trips (249 inbound and 132 outbound).

Table 4.10-5
Project Trip Generation Rates and Estimates

			AM			PM		
Land Use	**Size**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates[1]								
San José City College Students	Per student	1.39	80%	20%	0.11	65%	35%	0.13
Trip Estimates								
Evergreen Valley College Additional students	Additional 2,863 Students	3,980	251	64	315	249	132	381

Source: Fehr & Peers, January 2012

[1] *Rates used based on data collected at San José City College driveways in 2007.*

The Institute of Transportation Engineers Trip Generation, 8th Edition has trip generation rates of 0.12 trips per student for both the AM and PM peak hours. These are about 10 percent different than the rates observed in the surveys of the SJCC campus. However, the rates are based on a limited number of studies (5 trip generation surveys) and may not reflect an environment similar to the San José area. Two of the five studies identified transit centers within close proximity of the studied campuses. Transit use could affect the trip generation rates at those locations. The SJCC-specific trip generation rates were used in analyzing the traffic generation of the new students to reflect a locally validated trip generation rate.

Trip Distribution

The directions of approach and departure for project traffic were estimated based on the existing travel patterns in the area and the relative locations of complementary land uses, including residential and commercial uses. In addition, population density data from the 2000 Census Transportation Planning Packet (CTPP) was used. The major directions of approach and departure for the project are illustrated on **Figure 4.10-5, Project Trip Distribution**. The trip distribution is generally consistent with the analysis presented in the previous Evergreen Valley College Facilities Master Plan EIR, completed in May 2001.

Trip Assignment

Trips generated by the project were assigned to the roadway system based on the directions of approach and departure discussed above. **Figure 4.10-6, Project Trip Assignment** shows the AM and PM peak-hour project trips assigned to each turning movement at the study intersections.

4.10.4.4 Project Impacts and Mitigation Measures

Impact TRANS-1: Implementation of the 2025 Updated FMP would conflict with City of San José standards for signalized and unsignalized intersections and VTA standards for CMP intersections under 2025 plus project conditions.

Level of Significance: Potentially significant

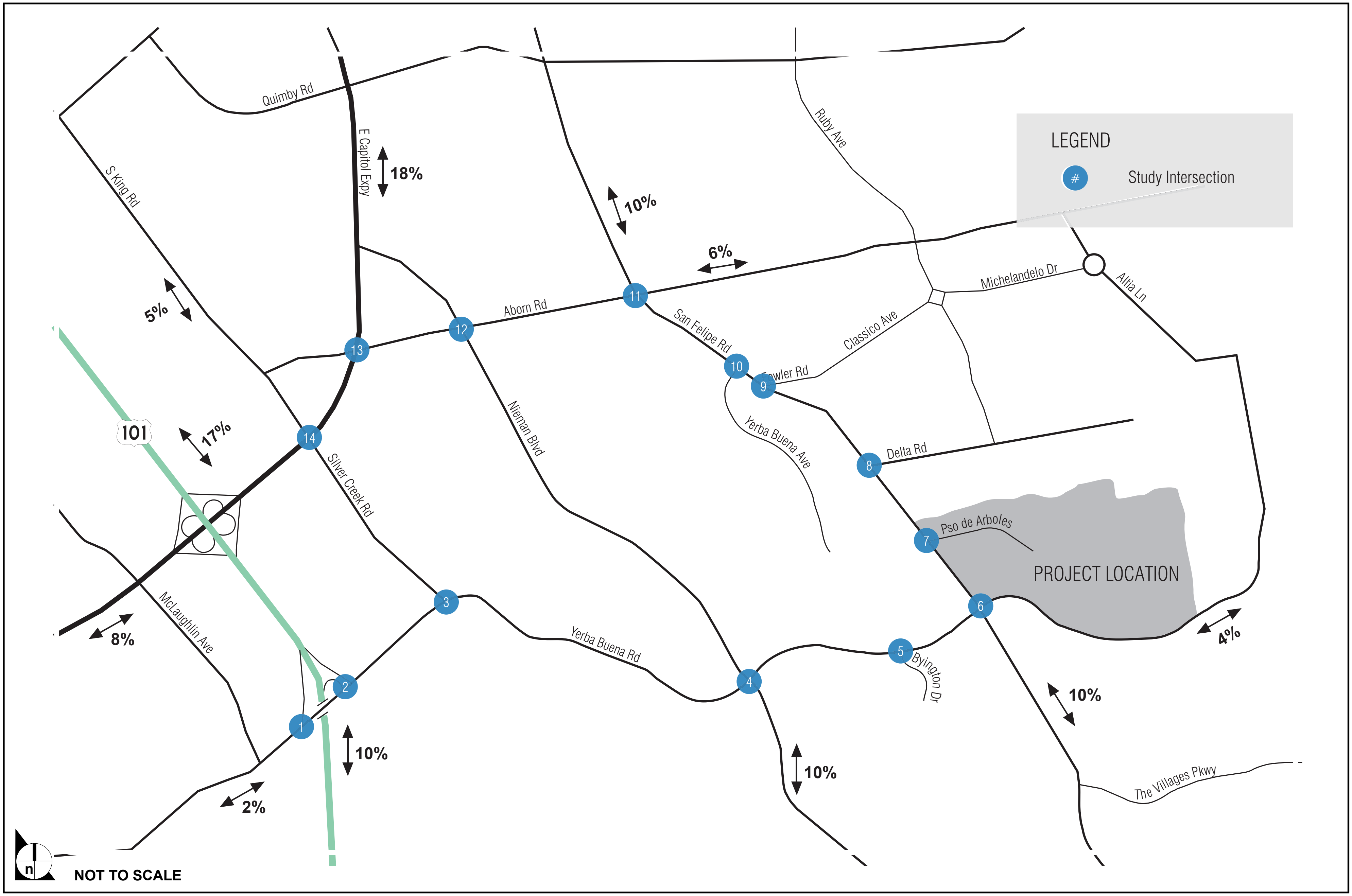
The traffic analysis for the proposed project evaluated future levels of service at the study intersections that would result from the full implementation of the 2025 Updated FMP. Full implementation of the proposed project is anticipated by 2025 and all proposed facilities will be occupied at that time. Traffic volumes for Cumulative (2025) Conditions were estimated by adding traffic generated by approved and pending developments to existing traffic volumes. EVC staff provided an approved trip inventory (ATI) that accounts for projects that would potentially add traffic to the study intersections. Traffic associated with pending projects, obtained from the City of San José, was also included. **Figure 4.10-7, 2025 No Project Lane Geometries, Traffic Controls, and Peak-Hour Intersection Volumes** illustrates the traffic volumes at the key intersections under 2025 No Project Conditions. The trips generated by the proposed project were added to the 2025 No Project Condition volumes and are shown on **Figure 4.10-8, 2025 Plus Project Lane Geometries, Traffic Controls, and Peak-Hour Intersection Volumes**. No roadway improvements were identified for inclusion under 2025 Conditions.

LOS calculations were conducted for the study intersections to evaluate their operations under 2025 No Project and 2025 Plus Project Conditions. The results of the LOS analysis are presented in **Table 4.10-6, 2025 No Project and 2025 Plus Project Intersection Levels of Service**. The results for 2025 No Project Conditions are included for comparison purposes, along with the projected increases in critical delay and critical volume-to-capacity (V/C) ratios. Critical delay represents the delay associated with the critical movements of the intersection or the movements that require the most "green time" and have the greatest effect on overall intersection operations. The changes in critical delay and critical V/C ratio between No Project and Project Conditions are used to identify significant impacts.

Table 4.10-6
2025 No Project and 2025 Plus Project Intersection Levels of Service

Intersection	Peak Hour	2025 No Project		2025 Plus Project			
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Change in Critical V/C[3]	Change in Critical Delay[4]
1. US 101 SB Off-Ramp & Yerba Buena Road*	AM PM	**92.9** **139.5**	**F** **F**	**101.8** **151.1**	**F** **F**	+0.03 +0.04	+8.9 +11.6
2. US 101 NB Off-Ramp & Yerba Buena Road*	AM PM	14.2 25.5	B C	14.6 26.8	B C	N/A	N/A
3. Silver Creek Road & Yerba Buena Road	AM PM	17.7 19.6	B B-	18.3 20.7	B- C+	N/A	N/A
4. Nieman Boulevard / Silver Creek Valley Road & Yerba Buena Road	AM PM	28.3 31.7	C C	31.1 37.8	C D+	N/A	N/A
5. Byington Drive / Yerba Buena Avenue & Yerba Buena Road	AM PM	10.2 13.1	B+ B	10.7 15.8	B+ B	N/A	N/A
6. San Felipe Road & Yerba Buena Road	AM PM	**67.2** **63.0**	**E** **E**	**77.9** **76.4**	**E-** **E-**	+0.05 +0.06	+10.7 +13.4
7. Paseo de Arboles & San Felipe Road	AM PM	13.4 13.5	B B	13.5 15.8	B B	N/A	N/A
8. Delta Road & San Felipe Road	AM PM	19.0 15.9	B- B	18.6 15.5	B- B	N/A	N/A
9. Fowler Road & San Felipe Road	AM PM	15.3 12.6	B B	14.8 12.4	B B	N/A	N/A
10. San Felipe Road & Yerba Buena Avenue	AM PM	20.1 13.3	C+ B	19.9 13.2	B- B	N/A	N/A
11. Aborn Road & White Road / San Felipe Road	AM PM	54.6 **63.7**	D- **E**	**55.5** **66.4**	**E+** **E**	**+0.01** **+0.03**	**+0.9** **+2.7**
12. Aborn Road & Nieman Boulevard	AM PM	36.3 46.6	D+ D	38.1 49.7	D+ D	N/A	N/A
13. East Capitol Expressway & Aborn Road*	AM PM	**181.8** **245.7**	**F** **F**	**182.0** **246.0**	**F** **F**	0.00 0.00	+0.2 +0.3
14. East Capitol Expressway & Silver Creek Road*	AM PM	**55.8** 54.7	**E+** D-	**55.9** **55.2**	**E+** **E+**	0.00 0.00	+0.1 +0.5

Source: Fehr & Peers, January 2012
***BOLD** = Unacceptable Operations; **SHADED** = significant impact*
[1] *Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the 2000 HCM, with adjusted saturation flow rates to reflect Santa Clara County Conditions. Total control delay for the worst movement is presented for side-street stop-controlled intersections. Delay for the worst approach is reported for Unsignalized intersections.*
[2] *LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.*
[3] *Change in the critical volume-to-capacity ratio (V/C) between Existing and Existing plus Project Conditions.*
[4] *Change in critical movement delay between Existing and Existing plus Project Conditions.*
* *CMP intersection.*
NA = not applicable



SOURCE: Fehr & Peers

FIGURE **4.10-5**

Project Trip Distribution

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SOURCE: Fehr & Peers

FIGURE **4.10-6**

Project Trip Assignment

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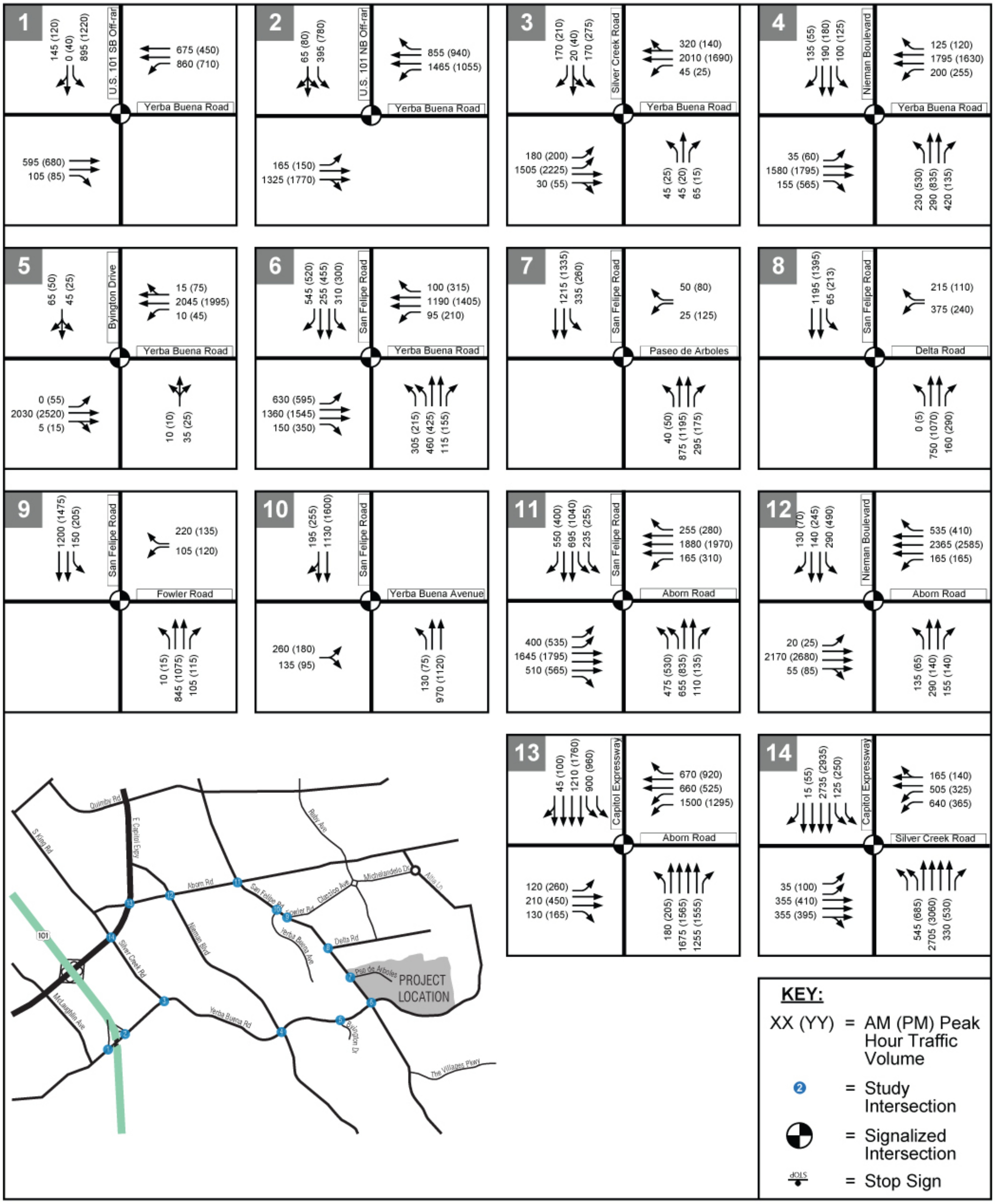

SOURCE: Fehr & Peers

FIGURE **4.10-7**

2025 No Project Lane Geometries, Traffic Controls, and Peak-Hour Intersection Volumes

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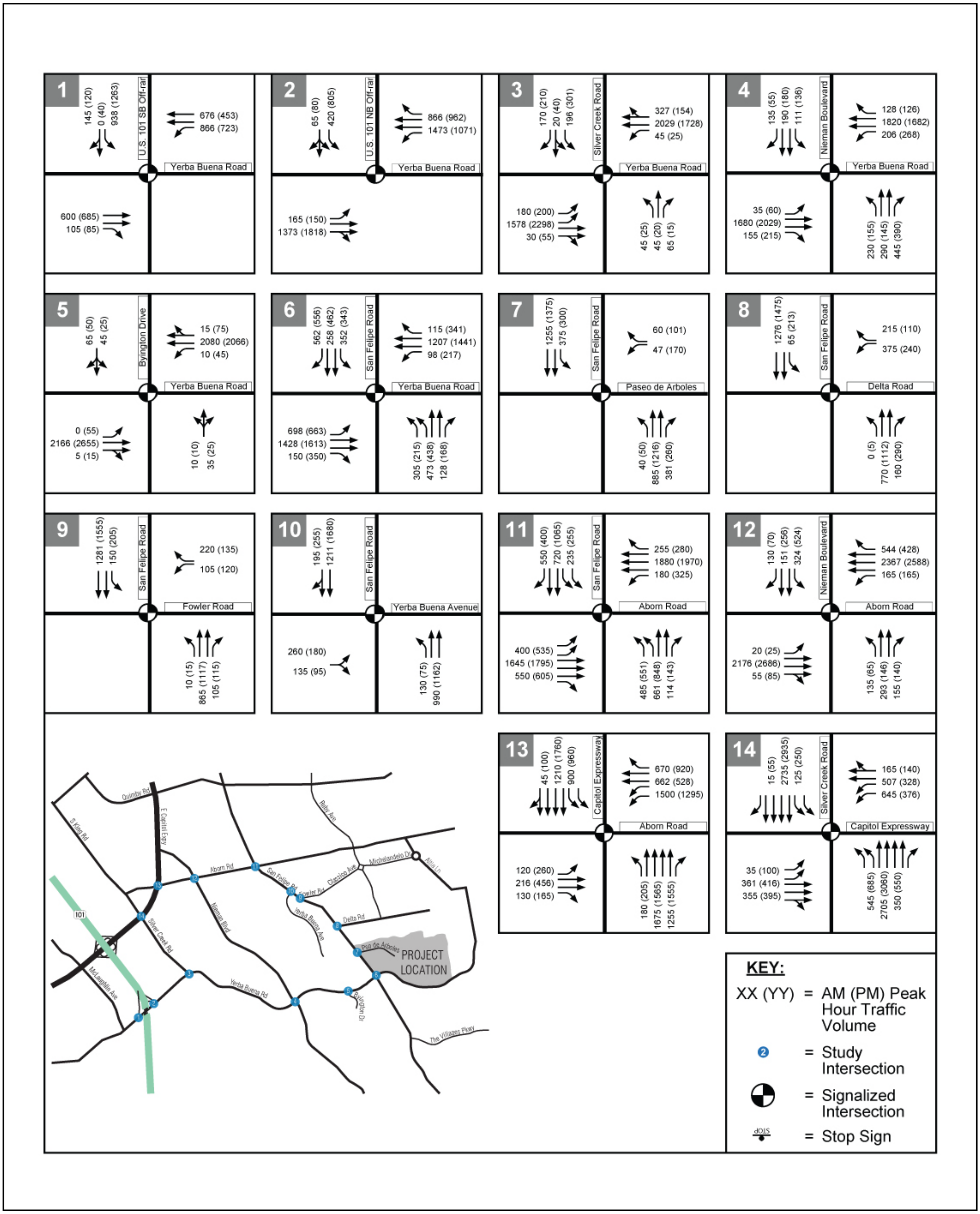


SOURCE: Fehr & Peers

FIGURE **4.10-8**

2025 Plus Project Lane Geometries, Traffic Controls, and Peak-Hour Intersection Volumes

461-004•09/12

All intersections continue to operate acceptably in both peak periods under City of San José, VTA, and Caltrans standards except for the following intersections:

- US 101 SB Off-Ramp & Yerba Buena Road
- San Felipe Road & Yerba Buena Road
- Aborn Road & White Road/San Felipe Road
- East Capitol Expressway & Aborn Road
- East Capitol Expressway & Silver Creek Road

The following describes the impact to each intersection under 2025 conditions and the project's contribution to each impact.

US 101 SB Off-Ramp & Yerba Buena Road

This intersection would operate at an unacceptable LOS F under AM and PM peak hour conditions without the addition of project related trips. With the addition of project traffic, this intersection would continue to operate at LOS F under both AM and PM peak hour conditions. The increase in critical delay to project traffic would be more than 4 seconds during the AM and PM peak hours, while the increase in critical V/C would be more than 0.01 during the AM and PM peak hours, and therefore would exceed City thresholds. There would be a significant impact at this location.

San Felipe Road & Yerba Buena Road

This intersection would operate at an unacceptable LOS E under both the AM and PM peak hour conditions without the addition of project related trips. With the addition of project traffic, this intersection would operate at LOS E- under both AM and PM peak hour conditions. The increase in critical delay due to project traffic would be more than 4 seconds during the AM and PM peak hours while the increase in critical V/C would be more than 0.01 during the AM and PM peak hours, and therefore would exceed City thresholds. As a result, there would be a significant impact at this location.

Aborn Road & White Road/San Felipe Road

This intersection would operate at an acceptable D- under AM Peak Hour conditions without the addition of project related trips and at an unacceptable LOS E under PM peak hour conditions without the addition of project related trips. With the addition of project traffic, this intersection would operate at LOS E+ under AM Peak Hour conditions and LOS E under PM peak hour conditions. Project related trips would worsen acceptable LOS D conditions to unacceptable LOS E conditions during the AM peak hour, and therefore would exceed the City's threshold. In addition, the increase in critical V/C would be more than 0.01 during the PM peak hour, which would also exceed the City's threshold. There would be a significant impact at this location.

East Capitol Expressway & Aborn Road

The East Capitol Expressway/Aborn Road intersection would operate at an unacceptable LOS F under 2025 No Project and 2025 Plus Project Conditions during the AM and PM peak hour. The increase in critical V/C and delay due to project traffic would not exceed the 0.01 and 4 second thresholds, respectively. Therefore, implementation of the proposed project would not conflict with the City of San José and VTA standards, and the impact on this intersection is considered less than significant.

East Capitol Expressway & Silver Creek Road

The East Capitol Expressway/Silver Creek Road intersection would operate at an unacceptable LOS E under Cumulative No Project and Cumulative Plus Project Conditions during the AM peak hour. The increase in critical V/C and delay due to project traffic would not exceed the 0.01 and 4 second thresholds, respectively. As a result, implementation of the proposed project would not conflict with the City of San José and VTA standards, and the impact on this intersection is considered less than significant.

The following improvements would address the project's contribution to the impacts at three of the five affected intersections under 2025 Plus Project Conditions. The remaining two intersections, East Capitol Expressway & Aborn Road and East Capitol Expressway & Silver Creek Road, do not require improvements.

- **US 101 SB Off-Ramp & Yerba Buena Road:** This signalized intersection is physically constrained. To improve operating conditions to an acceptable level, widening of the intersection to provide additional capacity would be required. Substantial improvement could only be accomplished through extensive demolition and reconstruction of facilities and/or right-of-way acquisition; therefore, this improvement is not considered feasible.

- **San Felipe Road & Yerba Buena Road:** Construct a second eastbound left-turn lane to improve operations at the intersection to an acceptable LOS D in both the AM and PM peak hours. Installation of the second eastbound left-turn lane would require reconstruction of the center median and restriping of the eastbound lanes, but should not require additional right of way.

- **Aborn Road & White Road/San Felipe Road:** Construct a second westbound left-turn lane to improve operations at the intersection to an acceptable LOS D in the AM peak hour. The PM peak hour would continue to operate at LOS E; however, delay and V/C would no longer exceed the thresholds of significance. Installation of the second westbound left-turn lane would require restriping of the center median and would not require additional right of way.

Improvements at the intersections of San Felipe and Yerba Buena Roads and Aborn and White/San Felipe Roads are within the jurisdiction of the City of San José. All feasible improvements, as and when they are needed, would be implemented by the City. Therefore, implementation is not guaranteed, and thus impacts will remain significant and unavoidable. However, as required by **Mitigation Measure TRANS-1**, the SJECCD would provide a proportional share of the cost of feasible improvements to applicable intersections based on the project's actual contribution to the impact. Because there is no feasible mitigation for the impact to the intersection of US 101 SB Off-Ramp & Yerba Buena Road, this impact would remain significant and unavoidable.

As a separate project the Campus proposes to install bleachers to seat up to 2,000 spectators on the eastern side of the soccer field. The purpose of the bleachers is to allow the soccer field to be used for special events such as graduation ceremonies and large community events (anticipated up to four per year). Events at the soccer field would result in additional vehicle trips to and from the campus that could increase delays at some of the study area intersections near the campus. However, all study intersections currently operate at acceptable levels of service and only three intersections would operate at unacceptable levels of service under 2025 conditions. Because events at the soccer field would occur infrequently (as low as once per year and up to five times per year) and travel to add from these events would often occur during non-peak times, the impact on the nearby study area intersections would not be significant. In addition, adequate parking is available on the campus to accommodate traffic associated with these events.

Mitigation Measure:

MM TRANS-1: The Campus shall provide a proportional share of the cost of feasible improvements to applicable intersections based on the project's actual contribution to the impact. The project's contribution shall be determined based on a formula agreed to by the City of San Jose and/or Caltrans and the Campus.

Significance after Mitigation: This measure would reduce impacts to some but not all affected intersections by the implementation of the 2025 Updated FMP. This impact would be significant and unavoidable.

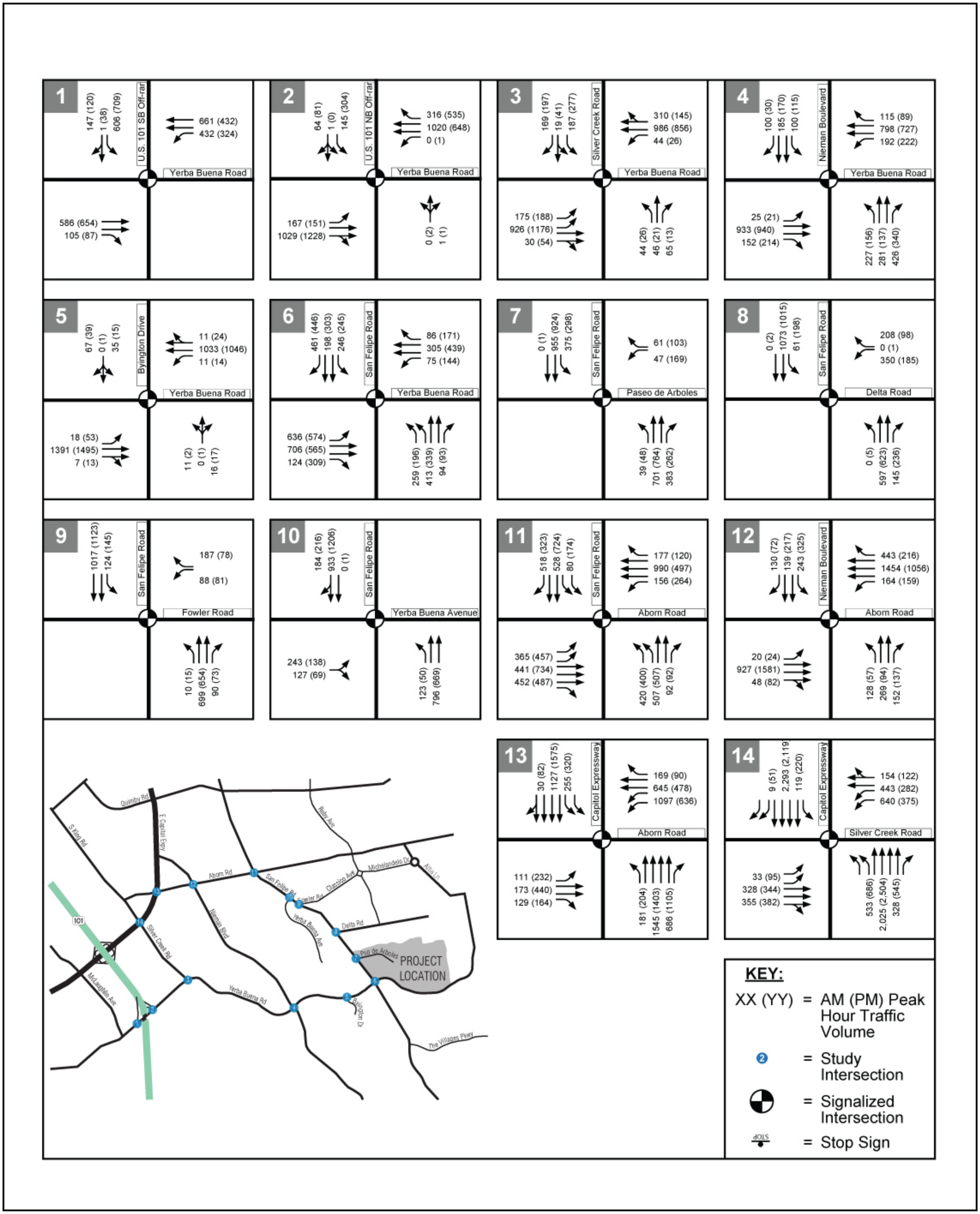
Impact TRANS-2: Implementation of the 2025 Updated FMP would not conflict with City of San José standards for intersections and VTA standards for CMP intersections under existing plus project conditions.

Level of Significance: Less than significant

Impact TRANS-1 above presents the effects of campus traffic at full development under the 2025 Updated FMP, which for purposes of this EIR is assumed to occur by 2025. As all of the new buildings to be constructed under the 2025 Updated FMP are unlikely to be constructed in the near future and all of the additional vehicle trips generated under the 2025 Updated FMP are not expected to be added to the study area transportation network immediately following approval of the proposed project, an existing plus project trips analysis is an unrealistic analysis. Nonetheless, given the 2010 Sunnyvale West ruling, an analysis was conducted that evaluated the project's traffic impacts on study intersections under existing plus project conditions. Furthermore, to satisfy the requirements of a project-level analysis, traffic added by the FMP projects must be evaluated against existing conditions.

Therefore, project trips were added to Existing Conditions traffic volumes to establish intersection volumes for Existing plus Project Conditions, as shown on **Figure 4.10-9, Existing Plus Project Lane Geometries, Traffic Controls, and Peak-Hour Intersection Volumes**. Level of service calculations were conducted to evaluate intersection operations under existing plus project conditions. The results of the LOS analysis are summarized in **Table 4.10-7, Existing and Existing Plus Project Intersection Levels of Service**.

As indicated in **Table 4.10-7**, all intersections continue to operate acceptably in both peak periods under City of San José, VTA, and Caltrans standards except for the East Capitol Expressway/Aborn Road intersection, which operates at LOS E in the PM peak hour with or without the project. During the PM peak hour, the Capitol Expressway/Aborn Road intersection operates at an unacceptable LOS E under existing conditions. As the addition of traffic from the proposed project does not increase the critical movement V/C ratio, and intersection delay remains unchanged, this is not a significant impact under the City of San José significance standards. Under VTA criteria, the intersection operates at an acceptable service level without and with the proposed project. As a result, implementation of the proposed project would not conflict with City of San José and VTA standards, and the impact on study intersections would be less than significant.



SOURCE: Impact Sciences, Inc. – January 2006

FIGURE **4.10-9**

Existing Plus Project Lane Geometries, Traffic Controls, and Peak-Hour Intersection Volumes

Table 4.10-7
Existing and Existing Plus Project Intersection Levels of Service

Intersection	Peak Hour	Existing		Existing Plus Project			
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Change in Critical V/C[3]	Change in Critical Delay[4]
1. US 101 SB Off-Ramp & Yerba Buena Road*	AM PM	29.7 30.6	C C	30.6 31.6	C C	N/A	N/A
2. US 101 NB Off-Ramp & Yerba Buena Road*	AM PM	15.2 16.6	B B	15.8 18.1	B B-	N/A	N/A
3. Silver Creek Road & Yerba Buena Road	AM PM	18.3 18.4	B- B-	18.3 18.4	B- B-	N/A	N/A
4. Nieman Boulevard / Silver Creek Valley Road & Yerba Buena Road	AM PM	27.5 27.1	C C	28.0 27.5	C C	N/A	N/A
5. Byington Drive / Yerba Buena Avenue & Yerba Buena Road	AM PM	9.6 8.1	A A	9.3 8.0	A A	N/A	N/A
6. San Felipe Road & Yerba Buena Road	AM PM	38.1 37.8	D+ D+	39.7 39.7	D D	N/A	N/A
7. Paseo de Arboles & San Felipe Road	AM PM	15.1 16.9	B B	14.5 19.0	B B-	N/A	N/A
8. Delta Road & San Felipe Road	AM PM	19.6 16.9	B- B	19.1 16.2	B- B	N/A	N/A
9. Fowler Road & San Felipe Road	AM PM	15.3 10.5	B B+	14.7 10.0	B B+	N/A	N/A
10. San Felipe Road & Yerba Buena Avenue	AM PM	20.8 19.6	C+ B-	20.3 19.6	C+ B-	N/A	N/A
11. Aborn Road & White Road / San Felipe Road	AM PM	48.2 49.2	D D	48.7 50.0	D D	N/A	N/A
12. Aborn Road & Nieman Boulevard	AM PM	39.1 39.2	D D	40.6 40.5	D D	N/A	N/A
13. East Capitol Expressway & Aborn Road*	AM PM	54.6 **67.2**	D- **E**	54.6 **67.4**	D- **E**	N/A 0	N/A 0
14. East Capitol Expressway & Silver Creek Road*	AM PM	54.5 52.0	D- D-	54.6 52.3	D- D-	N/A	N/A

Source: Fehr & Peers, January 2012
***BOLD** = Unacceptable Operations*
[1] *Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the 2000 HCM, with adjusted saturation flow rates to reflect Santa Clara County Conditions. Total control delay for the worst movement is presented for side-street stop-controlled intersections. Delay for the worst approach is reported for Unsignalized intersections.*
[2] *LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.*
[3] *Change in the critical volume-to-capacity ratio (V/C) between Existing and Existing plus Project Conditions.*
[4] *Change in critical movement delay between Existing and Existing plus Project Conditions.*
* *CMP intersection.*
NA = not applicable

As discussed above in **Impact TRANS-1**, as a separate project the Campus proposes to install bleachers to seat up to 2,000 spectators on the eastern side of the soccer field. The purpose of the bleachers is to allow the soccer field to be used for special events such as graduation ceremonies and large community events (anticipated up to four per year). Events at the soccer field would result in additional vehicle trips to and from the campus that could increase delays at some of the study area intersections near the campus. However, all study intersections currently operate at acceptable levels of service. Because events at the soccer field would occur infrequently (as low as once per year and up to 5 times per year) and travel to add from these events would often occur during non-peak times, the impact on the nearby study area intersections would not be significant. In addition, adequate parking is available on the campus to accommodate traffic associated with these events.

Mitigation Measure: No mitigation is required.

Impact TRANS-3: **Implementation of the 2025 Updated FMP would not conflict with CMP standards for freeway segments under existing plus project conditions and 2025 plus project conditions.**

Level of Significance: Less than significant

As stated in the CMP guidelines, freeway segments shall be further studied if a project is expected to add traffic equal to at least 1 percent of the freeway segment's capacity. As indicated below in **Table 4.10-8, Existing Plus Project Freeway Segment Levels of Service**, which presents the densities of each freeway segment and the estimated number of trips added to each segment by the proposed project, the 2025 Updated FMP would add traffic that is less than 1 percent of the capacity of segments along US 101 in the study area under existing conditions. Assuming no change in the capacity along segments of US 101 in the study area by 2025, traffic added by the 2025 Updated FMP would also add traffic that is less than 1 percent of the capacity of these segments. As a result, implementation of the 2025 Updated FMP would not conflict with CMP standards for freeway segments under existing plus project and 2025 plus project conditions, and the impact on study area freeway segments is considered less than significant.

Mitigation Measure: No mitigation is required.

Table 4.10-8
Existing Plus Project Freeway Segment Levels of Service

Freeway	From	To	Peak Hour	Mixed Flow Trips	Mixed Flow Density[1]	Mixed Flow LOS[2]	Mixed Flow Percentage of Capacity[3]	HOV Trips	HOV Density[1]	HOV LOS[2]	HOV Percentage of Capacity[3]
US 101 Northbound	Silver Creek Valley Road	Hellyer Avenue	AM PM	21 23	48 27	E D	0.31% 0.33%	4 2	27 8	D A	0.23% 0.14%
	Hellyer Avenue	Yerba Buena Road	AM PM	21 23	60 30	F D	0.31% 0.33%	4 2	25 8	C A	0.23% 0.13%
	Yerba Buena Road	East Capitol Expressway	AM PM	9 19	73 20	F C	0.14% 0.28%	2 19	22 8	C A	0.10% 0.17%
	East Capitol Expressway	Tully Road	AM PM	9 19	66 31	F D	0.14% 0.28%	2 3	60 12	F B	0.10% 0.16%
US 101 Southbound	Tully Road	East Capitol Expressway	AM PM	39 37	27 63	D F	0.56% 0.53%	4 6	9 24	A C	0.27% 0.39%
	East Capitol Expressway	Yerba Buena Road	AM PM	38 37	23 23	C C	0.56% 0.53%	5 6	8 16	A B	0.28% 0.39%
	Yerba Buena Road	Hellyer Avenue	AM PM	5 11	31 30	D D	0.08% 0.16%	1 2	14 24	B C	0.05% 0.12%
	Hellyer Avenue	Silver Creek Valley Road	AM PM	5 11	23 23	C C	0.08% 0.16%	1 2	7 11	A B	0.03% 0.11%

Source: Fehr & Peers, January 2012
***BOLD** = Unacceptable Operations*
1 *Measured in passenger cars per mile per lane.*
2 *LOS = level of service.*
3 *Percent impact determined by dividing the number of project trips by the freeway segment's capacity.*

Impact TRANS-4: Implementation of the 2025 Updated FMP would not result in hazards due to design features or incompatible uses.

Level of Significance: Less than significant

Implementation of the 2025 Updated FMP would result in the construction of new buildings and new roadways on the EVC campus. No changes to campus entries on San Felipe Road and Yerba Buena Road are planned. It is anticipated that any new roadway segments and driveways proposed on the EVC campus would employ standard engineering practices (e.g., use of standard road and driveway widths, provision of adequate sight lines, and avoidance of sharp turning radii) and traffic mitigation strategies (e.g., installation of control devices such as stop signs or signal lights as needed) to avoid design elements that could result in hazards due to features such as sharp curves or dangerous intersections. As a result, implementation of the proposed project would not result in hazards due to design features or incompatible uses, and this impact is considered less than significant.

Mitigation Measure: No mitigation is required.

Impact TRANS-5: Implementation of the 2025 Updated FMP would not result in inadequate emergency access.

Level of Significance: Less than significant

Implementation of the 2025 Updated FMP would result in the construction of new buildings and new roadways on the EVC campus that would require emergency access. The issue of emergency access considers both the regional accessibility of the project site and access within the site itself. From a regional perspective, existing roadways provide adequate access to the campus. Emergency vehicles can access the campus via roadways from each of the cardinal directions, including San Felipe Road and Yerba Buena Avenue. Once emergency vehicles have traveled to the project site, the internal roadway network is adequate to allow these vehicles to reach their designated locations. A new roadway connecting the east and west sides of the campus would further improve access within the campus. As a result, implementation of the proposed project would not result in inadequate emergency access and this impact is considered less than significant.

Mitigation Measure: No mitigation is required.

Impact TRANS-6: Implementation of the 2025 Updated FMP would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Level of Significance: Less than significant

The Envision San José 2040 General Plan contains several policies that promote the use of alternative transportation. One policy requires the City of San José to eliminate or minimize physical obstacles and barriers that impede pedestrian and bicycle movement on City streets. Another policy requires new development to provide, where feasible, on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements. Concerning public transit, another policy requires new development along existing and planned transit facilities consist of land use and development types and intensities that contribute toward transit ridership.

Implementation of the 2025 Updated FMP would not conflict with policies contained in the Envision San José 2040 General Plan that promote alternative modes of transportation. Existing sidewalks are located adjacent to and in the vicinity of the EVC campus and sidewalks and pedestrian connections link the campus to adjacent neighborhoods and transit facilities. None of the improvements listed in the 2025 Updated FMP would eliminate or obstruct the use of these facilities. In addition, the recommended pedestrian plan contained the 2025 Updated FMP would provide direct connections to adjacent pedestrian and bicycle routes. Finally, the EVC campus is served by two bus routes, and bus stops are located on and adjacent to the campus. The increase in students on the campus that would be occur with implementation of the 2025 Updated FMP would increase transit ridership along these routes and none of the improvements listed in the 2025 Updated FMP would block access to transit or remove existing bus stops. For these reasons, the impact with regard to potential conflicts with policies that promote alternative modes of transportation is less than significant.

Mitigation Measure: No mitigation is required.

4.10.4.5 Cumulative Impacts and Mitigation Measures

Subsection 4.10.4.4, Project Impacts and Mitigation Measures, above, evaluates the potential traffic impacts from campus development under the 2025 Updated FMP. To present the full impacts from the development of the entire EVC campus, the analysis presents the effects from buildout of the campus and its vicinity in the year 2025.

Impacts TRANS-1 and **TRANS-3** evaluate the traffic that would result from approved and pending developments in the area as well as the proposed project. That analysis therefore presents the cumulative traffic impacts that were determined to be significant at some of the study intersections and less than significant at study freeway segments. A mitigation measure is included to address the proposed project's contribution to the significant cumulative traffic impacts. However, because implementation of the intersection improvements determined necessary to reduce the project's impacts on off-campus intersections is outside the control of the SJECCD, **Impact TRANS-1** is found to be significant and unavoidable for three intersections. **Impact TRANS-3** is found to be less than significant for all freeway segments.

4.10.5 REFERENCES

City of San José. 2011. *Envision San José 2040 General Plan*. Adopted November 1.

Fehr and Peers. 2012. San José City College Facilities Master Plan: Draft Transportation Impact Analysis. January

4.11 UTILITIES AND SERVICE SYSTEMS

4.11.1 INTRODUCTION

This section describes existing utility systems serving the Evergreen Valley College (EVC) campus and evaluates the effects on these systems from campus development under the 2025 Updated Facilities Master Plan (FMP). This section analyzes the potential for impacts to the following utilities: water, wastewater, solid waste, electricity, and natural gas.

No public or agency comments related to utilities and service systems were received in response to the Notice of Preparation (NOP) issued for this EIR.

4.11.2 ENVIRONMENTAL SETTING

4.11.2.1 Study Area

To evaluate the impacts of campus development under the 2025 Updated FMP, the study area is defined as the EVC campus, the vicinity of the campus, and the City of San José, as relevant to the topic being evaluated. The term "campus" encompasses the entire 158-acre campus.

4.11.2.2 Water Supply

The San José Municipal Water System (SJMWS) provides potable water and fire protection water to its customers, which include the EVC campus. In the Evergreen area, potable water is supplied from two sources, treated water from the Santa Clara Valley Water District (SCVWD), and, in an emergency, well water from the Municipal Water System wells. Recycled water for irrigation is provided from the South Bay Water Recycling system. As a backup to recycled water, EVC also has on-site wells for irrigation (SJECCD 2001).

Treated potable water supplied by the SCVWD is treated at the Santa Teresa Water Treatment Plant (WTP) or the Penitencia WTP. The Santa Teresa WTP can treat and deliver up to 100 million gallons per day (gpd) while the Penitencia WTP can treat and deliver up to 40 million gpd (LAFCO 2011).

The current peak potable water demand of the entire campus is estimated at approximately 275,540 gallons per day (gpd)[1] (about 308.6 acre-feet per year) based on a demand factor obtained from a similar college campus. However, this estimate does not take into account water conservation measures

1 Based on a water demand factor of 23 gpd/student (11,980 students [existing] X 23 gpd/student = 275,540 gpd). Demand rate obtained from Occidental College Specific Plan EIR (SCH No. 2006081153).

used by the campus, such as low-flow toilets and urinals and self-closing faucets in all restrooms. The campus currently uses about 110,110 gpd (about 123.3 acre-feet per year) of recycled water for landscape irrigation (Young 2013).

SJMWS provides potable water to the campus via a 12-inch main at two points of connection. The primary connection is located behind the Performing Arts Center adjacent to Parking Lot 5 and the secondary connection is located on the hill behind the Roble Buildings (CSW/ST2 2013). There is one additional connection to the recycled water system on Yerba Buena Road, just west of the College entrance (SJECCD 2001). Potable water is distributed throughout the campus via two separate 8-inch and 10-inch water mains (CSW/ST2 2013).

4.11.2.3 Wastewater

The City of San José provides wastewater treatment services to the EVC campus. Wastewater is treated at the San José/Santa Clara Water Pollution Control Plant (WPCP), located in Alviso. The San José/Santa Clara WPCP provides tertiary treatment and the treated effluent is ultimately discharged into the southern end of the San Francisco Bay. The existing design capacity of the San José/Santa Clara WPCP is approximately 167 million gallons per day (mgd) average dry weather flow (City of San José 2011a).

The San José/Santa Clara WPCP is currently operating under a 120 mgd average dry weather effluent flow constraint. This constraint was established in response to concerns over the effects of freshwater discharges from the WPCP on the saltwater marsh habitat and pollutant loading to the Bay (City of San José 2011a). The WPCP currently treats about 110 mgd average dry weather effluent flow.

The average daily dry weather sewage flow treated by the WPCP from sources in the City of San José is approximately 69.8 mgd. The City's share of the WPCP's treatment capacity is approximately 108.6 mgd which, based on current sewage flows, leaves the City with approximately 38.8 mgd of excess treatment capacity (City of San José 2011a).

Existing peak wastewater generation on the campus is estimated at approximately 0.25 mgd. Wastewater is collected throughout the campus via an 8-inch sewer main that ties into City's sewer main along San Felipe Road. A 6-inch sewer line is located along the path south of Parking Lot 4 to serve the field restroom building (CSW/ST2 2013).

4.11.2.3 Stormwater

The existing stormwater drainage system on the EVC campus consists of subsurface reinforced concrete pipes ranging in size from 24 inches to 42 inches. The storm drain system is discharges off campus into

Yerba Buena Creek at two locations: one location is south of the Evergreen Lake and the second is at the southeastern corner of the campus property. Drainage pipe outfalls into the creek have sacked concrete and rip-rap protecting the slopes (SJECCD 2001). See **Section 4.6, Hydrology and Water Quality**, for a more detailed description of the stormwater drainage system on the campus.

4.11.2.4 Solid Waste

Solid waste generated on the campus is collected by a private hauler and is disposed at any of four privately owned landfills in San José, or at other landfills outside the County. Landfills serving the City include Guadalupe Mines, Kirby Canyon, Newby Island, and Zanker Road. In addition, the Zanker Road landfill includes a Materials Processing Facility. Closure dates for three of the landfills range from 2021 to 2025, with Newby Island landfill currently seeking approvals to increase capacity in order to continue operating through 2025 and the Zanker Road landfill having no closure date due to the minimal amount of materials being landfilled each year. It is estimated that the County has adequate disposal capacity for the next 15 years (City of San José 2011). It is estimated that the campus generates approximately 9,584 pounds of solid waste per day[2] based on a demand factor obtained from another college campus. However, this estimate does not take into account ongoing recycling programs on the campus, such as separating paper products for recycling.

4.11.2.5 Other Utilities

Electricity

Pacific Gas and Electric (PG&E) provides electricity to the EVC campus. The company provides electric service to 5.1 million customers throughout a 70,000-square-mile service area in northern and central California. Sources of electricity generation include fossil fuels (natural gas/fuel oil), hydroelectric, nuclear, and solar. The EVC campus also receives power from a 1.4-megawatt (MW) photovoltaic system that was recently installed on the campus. This system provides about one-third of the campus' power.

It is estimated that existing electricity demand on the campus is currently approximately 4.0 million kilowatt-hours per year[3] based on a demand factor obtained from another college campus. PG&E provides electricity to the EVC campus from 21 kVA lines that feed into the campus Central Energy Plant.

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[2] Based on a solid waste generation rate of 0.8 pound/day/student (11,980 students [existing] x 0.8 pounds/day/student = 9,584 pounds). Demand rate obtained from Occidental College Specific Plan EIR (SCH No. 2006081153).

[3] Based on an electrical demand rate of 11.55 kilowatt/square feet/year (344,900 gross square feet [existing] x 11.55 kWh/sf/year = 3,983,595 kilowatt-hours per year). Demand rate obtained from 2011 Facilities Master Plans for Saddleback College & Irvine Valley College EIR (SCH No. 2011071005).

Power is then distributed throughout the campus to each building via direct-bury cable or through the campus utility tunnel system (Miller 2012).

Natural Gas

PG&E also provides electricity to the EVC campus. The company provides natural gas service to 4.3 million customers throughout its service area. A majority of PG&E's gas supply comes from outside California. It is estimated based on a demand factor obtained from another college campus that existing natural gas demand of the campus is currently approximately 689,800 cubic feet per month.[4] PG&E provides natural gas to the EVC campus from existing infrastructure located in the vicinity of the campus. Natural gas is feed from a PG&E main into the campus Central Energy Plant. The gas then is distributed throughout the campus to each building via direct-bury piping or through the campus utility tunnel system.

4.11.3 REGULATORY SETTING

4.11.3.1 State

Water Supply

Urban Water Management Planning Act

California State Assembly Bill 797 (California Water Code Section 10610, et seq.), adopted in 1983, requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or more than 3,000 acre-feet of water on an annual basis to prepare an Urban Water Management Plan (UWMP). The intent of the UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands. UWMPs must be updated every five years in years ending in zero and five.

The SJMWS adopted the 2010 UWMP in June of 2011 and it was subsequently submitted to the Department of Water Resources. The 2010 UWMP includes projected water supplies required to meet future demands through 2035.

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4 Based on an natural gas demand rate of 2.0 cubic feet/square feet/month (427,300 gross square feet [existing] x 2.0 cf/sf/mo = 854,600 cubic feet per month). Demand rate obtained from 2011 Facilities Master Plans for Saddleback College & Irvine Valley College EIR (SCH No. 2011071005).

Senate Bill 610

In accordance with Senate Bill 610 (effective January 1, 2002, and codified in the Water Code beginning at Section 10910), in the setting where a City or County has determined that a project is subject to the California Environmental Quality Act (CEQA), the City or County must request, and the public water supplier must prepare, a Water Supply Assessment (WSA) for any "project approval" which is subject to CEQA and which meets the definition of "project" in Water Code Section 10912. The law provides a definition of "project" to be used in determining whether a water supply assessment should be requested by a City or County, and prepared by the water purveyor. For a water purveyor with the designated number of connections, a water supply assessment should be prepared when a project includes any of the following: (1) more than 500 residential dwelling units; (2) a shopping center or business with more than 1,000 employees or more than 500,000 square feet of floor space; (3) a commercial office building with more than 250,000 square feet of floor space or more than 1,000 employees; (4) a hotel or motel with more than 500 rooms; (5) an industrial, manufacturing or processing plant, or an industrial park, with more than 650,000 square feet of floor area, more than 1,000 employees, or that occupies more than 40 acres; (6) a mixed-use project that includes one or more of the above specified projects; or (7) a project that will demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project.

This process essentially requires proof that there will be adequate water supplies at the local level for larger projects during a 20-year timeframe. The water supply assessment addresses whether a projected water supply for the next 20 years, based on normal, single-dry, and multiple-dry years, will meet the demand of the project. The conclusions of the water supply assessment are then included in the water supply impact analysis of the EIR.

As the San José/Evergreen Community College District (SJECCD) is not a City or County entity, a WSA is not required under SB 610 for the 2025 Updated FMP. In addition, the law does not appear to be intended to apply to projects defined as a long-term master plan revision, like the 2025 Updated FMP. Accordingly, the 2025 Updated FMP does not meet the definition of a project subject to SB 610 and a WSA was not requested and prepared for the 2025 Updated FMP. However, the effect of the proposed project on the local water supply and distribution system is evaluated in this section.

Solid Waste

Assembly Bill 939

In 1989, Assembly Bill (AB 939) established the current organization, structure, and mission of California Integrated Waste Management Board (CIWMB). The purpose was to direct attention to the increasing waste stream and decreasing landfill capacity, and to mandate a reduction of waste being disposed in landfills. Jurisdictions were required by AB 939 to meet diversion goals of 25 percent by 1995 and 50 percent by the year 2000. The City of San José currently diverts 60 percent of its solid waste through a variety of waste diversion programs and aims to achieve 75 percent diversion by 2013 and 100 percent diversion by 2022.

California Universal Waste Law

This legislation went into effect in February 2006. Universal wastes are a wide variety of hazardous wastes such as batteries, fluorescent tubes, and some electronic devices that contain mercury, lead, cadmium, copper, or other substances hazardous to human and environmental health. Universal waste may not be discarded in municipal solid waste landfills, but instead must be recycled. To encourage recycling and recovery of valuable metals, these wastes can be managed under less stringent requirements than those that apply to other hazardous wastes.

4.11.3.2 Local

Envision San José 2040 General Plan

The proposed project would be located on land owned and operated by the SJECCD. As a state entity, SJECCD is exempted by the state constitution from compliance with local land use regulations, including general plans and zoning. However, SJECCD seeks to cooperate with local jurisdictions to reduce any physical consequences of potential land use conflicts to the extent feasible. Policies from the Envision San José 2040 General Plan (City of San 2011b) that relate to water supply, wastewater, and solid waste are provided below.

Water Supply

Policy MS-3.1 Require water-efficient landscaping, which conforms to the state’s Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial, and developer-installed residential development unless for recreation needs or other area functions.

Policy MS-3.2 Promote use of green building technology or techniques that can help reduce the depletion of the City’s potable water supply as building codes permit. For example, promote the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling, consistent with Building Codes or other regulations.

Wastewater

Policy IN-3.1 For sanitary sewers, achieve a minimum level of service "D" or better as described in the Sanitary Sewer Level of Service Policy and determined based on the guidelines provided in the Sewer Capacity Impact Analysis (SCIA) Guidelines.

Policy IN-4.1 Monitor and regulate growth so that the cumulative wastewater treatment demand of all development can be accommodated by San José's share of the treatment capacity at the San José/Santa Clara Water Pollution Control Plant.

Solid Waste

Policy IN-5.1 Monitor the continued availability of long-term collection, transfer, recycling and disposal capacity to ensure adequate solid waste capacity. Periodically assess infrastructure needs to support the City's waste diversion goals. Work with private MRF and Landfill operators to provide facility capacity to implement new City programs to expand recycling, composting, and other waste processing.

Policy IN-5.3 Use solid waste reduction techniques, including source reduction, reuse, recycling, source separation, composting, energy recovery and transformation of solid wastes to extend the life span of existing landfills and to reduce the need for future landfill facilities and to achieve the City's Zero Waste goals.

4.11.4 IMPACTS AND MITIGATION MEASURES

4.11.4.1 Standards of Significance

In accordance with Appendix G of the *2013 California Environmental Quality Act (CEQA) Guidelines*, the impact of the proposed project related to utilities and service systems would be considered significant if it would:

- exceed the Regional Water Quality Control Board's wastewater treatment requirements;
- require or result in the construction or expansion of water or wastewater treatment facilities, which would cause significant environmental effects;
- require or result in the construction or expansion of storm water drainage facilities, which could cause significant environmental effects;
- result in the need for new or expanded water supply entitlements due to insufficient water supplies available to serve the project from existing entitlements and resources;
- exceed available wastewater treatment capacity;
- be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- fail to comply with applicable federal, state, and local statutes and regulations related to solid waste.

4.11.4.2 Issues Not Discussed Further

All of the CEQA checklist questions related to utilities and service systems are analyzed below.

4.11.4.3 Methodology

The analysis of impacts to utilities and service systems is based on a comparison of the existing and projected demand for utilities and the resulting need, if any, for new, expanded, or modified facilities to meet the increased demand. Under CEQA, impacts are typically considered to be significant if a project will require new or expanded utility service facilities the construction of which will result in significant environmental impacts.

4.11.4.4 Project Impacts and Mitigation Measures

Impact UTIL-1: **Implementation of the 2025 Updated FMP would not result in the need for new or expanded water supply entitlements or require the construction of new or expanded water delivery infrastructure.**

Level of Significance: Less than significant

Potable Water Supply

The EVC campus currently receives potable water supply from the SJMWS. Current daily potable water consumption on the EVC campus is estimated at approximately 275,540 gpd. Based on the increase in students under the 2025 Updated FMP, it is estimated that the overall potable water demand on campus would increase to approximately 341,320 gpd,[5] an increase of about 65,780 gpd or 24 percent over existing conditions. However, this estimate does not take into account campus plans to replace potable water utilized for cooling in the Central Energy Plant cooling tower with recycled water. The Central Energy Plant currently utilizes approximately 45,700 gpd of potable water for cooling. After accounting for the replacement of potable water with non-potable water, potable water demand on campus under the 2025 Updated FMP would increase to only approximately 295,620 gpd, an increase of about 20,080 gpd or 7 percent over existing conditions.

According to 2010 UWMP, the SJMWS would have enough supply to meet projected demand within its service area through 2035 during normal, single dry, and multiple dry years (SJMWS 2011). The 2010 UWMP includes water demands for all development planned for and included within the City's Envision San José 2040 General Plan. As growth on the EVC campus was accounted for in the City's General Plan (Ross 2013), growth on the campus was also accounted for in the 2010 UWMP, and as a result there is enough supply to serve the projected demand for potable water on the campus through 2035 during normal, single dry, and multiple dry years. In addition, the EVC campus would continue to implement water conservation measures such as low-flow toilets and urinals and self-closing faucets in all restrooms. For these reasons, implementation of the 2025 Updated FMP would not result in the need for new or expanded water supply entitlements, and this impact would be less than significant.

Non-Potable Water Supply

The EVC campus currently receives non-potable water supply from the South Bay Water Recycling system. As there would be no substantial increase or decrease in landscaping under the 2025 Updated

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5 Based on a water demand factor of 23 gpd/students (14,840 students [future] x 23 gpd/students = 341,320 gpd).

FMP, non-potable water demand for irrigation would remain at approximately 110,110 gpd. As discussed above, the Campus plans to utilize non-potable water for cooling in the Central Energy Plant cooling tower. With the addition of this demand (45,700 gpd), non-potable demand at buildout of the 2025 Updated FMP would be approximately 155,810 gpd, an increase of 142 percent over existing conditions.

During the peak summer season, South Bay Water Recycling system delivers between 10 and 16 million gpd of recycled water for irrigation and industrial uses to over 600 customers throughout San Jose, Santa Clara, and Milpitas (SJMWS 2011). As the WPCP currently treats about 110 mgd average dry weather flow, there is enough recycled water to meet the Campus' need. Therefore, the impact on non-potable water supplies would be less than significant.

Water Delivery Infrastructure

The maximum potable water demand for the proposed project of approximately 295,620 gpd equates to a maximum flow rate of 205 gallons per minute (gpm) while the maximum non-potable water demand of about 155,810 gpd equates to a maximum flow rate of 108 gallons per minute (gpm). Based on these flow rates, no major upgrades are required to the City's potable and non-potable water mains that serve the campus. However, some upgrades to existing distribution pipelines within the campus are required are required to serve buildout of the 2025 Updated FMP (CSW/ST2 2013). The environmental effects of these upgrades to the campus potable water distribution system are addressed throughout this EIR, including but not limited to, in **Section 4.2, Air Quality; Section 4.3, Biological Resources; Section 4.5, Greenhouse Gas Emissions; Section 4.6, Hydrology and Water Quality**; and **Section 4.8, Noise**. Due to the limited ground disturbance needed for these upgrades, construction-phase air quality and noise impacts would be less than significant. Impacts related to the construction of water distribution system improvements on the campus would be less than significant.

Mitigation Measure: No mitigation is required.

Impact UTIL-2: **Implementation of the 2025 Updated FMP would not require or result in the construction or expansion of water treatment facilities.**

Level of Significance: Less than significant

As discussed above, treated water supplied by the SCVWD is treated at the Santa Teresa or Penitencia WTPs. Implementation of the 2025 Updated FMP would result in a net increase in water demand of approximately 20,080 gpd. Growth on the EVC campus was accounted for in the City's General Plan, which served as the basis for water demand projections used in the SJMWS's 2010 UWMP, and thus future water demand on the campus was accounted for in capacity projections for the WTPs serving the campus. Therefore, implementation of the 2025 Updated FMP would not require or result in the construction or expansion of water treatment facilities, and this impact is less than significant.

Mitigation Measure: No mitigation is required.

Impact UTIL-3: **Implementation of the 2025 Updated FMP would not require the construction or expansion of wastewater conveyance or treatment facilities.**

Level of Significance: Less than significant

Treatment Facilities

Wastewater generated on the EVC campus is conveyed by the City of San José sewer system to the San José/Santa Clara WPCP. Existing average sanitary sewer flows generated on the campus are estimated at approximately 0.25 mgd. It is estimated that implementation of the 2025 Updated FMP would increase the volume of wastewater generated on the EVC campus to approximately 0.31 mgd,[6] an increase of about 0.06 mgd or 23 percent over existing conditions. The City of San José's share of the San José/Santa Clara WPCP's treatment capacity is approximately 108.6 mgd and the WPCP currently handles normal average flows of approximately 69.8 mgd from sources in the City, thus leaving the City with approximately 38.8 mgd in excess capacity. As implementation of the 2025 Updated FMP would only result in a net increase in wastewater generation of approximately 0.06 mgd, the proposed project would not use a substantial portion of or negatively affect the City's excess capacity at the San José/Santa Clara WPCP. Therefore, implementation of the 2025 Updated FMP would not result in the need to expand the San José/Santa Clara WPCP, and this impact would be less than significant.

Wastewater Conveyance Infrastructure

Based on the volume of wastewater generated at 2025 Updated FMP buildout, the flow rate would be approximately 213 gpm. No major improvements to the City's sewer mains that serve the campus are needed to handle this flow from the campus. However, it is possible that project-specific improvements to piping or other facilities (e.g., line or pump upgrades) near the EVC campus may be required specifically to accommodate the increase in wastewater generation as the 2025 Updated FMP is implemented. Such upgrades are not expected to result in significant environmental effects due to the urban context (all improvements would be within existing road right-of-ways in areas that have been previously disturbed in conjunction with other utilities and roadway construction). Furthermore,

6 Based on 90 percent of campus water demand (341,320 gpd [future] x 90 percent = 307,188 gpd).

Government Code Section 54999 authorizes public utilities to charge the campus a limited capital facilities fee under certain circumstances. This fee is a non-discriminatory charge to defray the actual cost of that portion of a public utility facility actually serving the campus. The City of San José would charge the EVC campus for any such upgrades under Government Code Section 54999, which would cover the campus's fair share of the construction cost, including the cost of mitigation measures to address environmental impacts, if any.

Some upgrades to the existing campus sewer conveyance system are required are required to serve buildout of the 2025 Updated FMP (CSW/ST2 2013). The physical environmental effects of these upgrades to the campus sewer conveyance system are addressed throughout this EIR, including but not limited to, in **Section 4.2, Air Quality; Section 4.3, Biological Resources; Section 4.5, Greenhouse Gas Emissions; Section 4.6, Hydrology and Water Quality**; and **Section 4.8, Noise**. Due to the limited ground disturbance needed for these upgrades, construction-phase air quality and noise impacts would be less than significant. Impacts related to the construction of water distribution system improvements on the campus would be less than significant.

Mitigation Measure: No mitigation is required.

Impact UTIL-4: **Implementation of the 2025 Updated FMP would not require the construction or expansion of storm water drainage facilities**

Level of Significance: Less than significant

Some upgrades to existing storm drain system on campus are required to serve buildout of the 2025 Updated FMP (CSW/ST2 2013). The environmental effects of these upgrades to the campus storm drain system are addressed throughout this EIR, including but not limited to, in **Section 4.2, Air Quality; Section 4.3, Biological Resources; Section 4.5, Greenhouse Gas Emissions; Section 4.6, Hydrology and Water Quality**; and **Section 4.8, Noise**. Due to the limited ground disturbance needed for these upgrades, construction-phase air quality and noise impacts would be less than significant. Impacts related to the construction of storm water system improvements on the campus would be less than significant.

Mitigation Measure: No mitigation is required.

Impact UTIL-5: **Implementation of the 2025 Updated FMP would not conflict with applicable solid waste regulations, nor would it result in solid waste requiring disposal that would exceed the landfill capacity.**

Level of Significance: Less than significant

Solid waste generated on the EVC campus would continue to be disposed at any of the landfills serving the City of San José or landfills outside the County. Existing solid waste generation on the campus is estimated at approximately 9,584 pounds per day. At buildout of the 2025 Updated FMP, it is estimated that solid waste generation on campus would increase to approximately 11,872 pounds per day,[7] an increase of about 2,288 pounds per day or 24 percent over existing conditions. As discussed above, it is estimated that there is adequate disposal capacity in Santa Clara County landfills for the next 15 years. In addition, the EVC campus would continue to implement ongoing recycling programs.

Implementation of the 2025 Updated FMP would also result in demolition and renovation of old buildings. These activities would generate a substantial amount of demolition and construction debris that could require disposal in a landfill. All construction debris will be recycled as much as possible, either on campus or through a debris recycling firm (Miller 2012).

In summary, the proposed project would comply with applicable regulations related to solid waste and would be served by a landfill with sufficient remaining capacity. Therefore, campus development under the 2025 Updated FMP would not result in significant adverse impacts related to solid waste.

Mitigation Measure: No mitigation is required.

Impact UTIL-6: **Implementation of the 2025 Updated FMP would not require the construction or expansion of electrical or natural gas distribution facilities.**

Level of Significance: Less than significant

Existing electrical and natural gas consumption on the campus is estimated at approximately 4.0 million kilowatt hours per year and 689,800 cubic feet per month, respectively. At buildout of the campus under the 2025 Updated FMP, it is estimated that electrical and natural gas consumption would increase to approximately 4.1 million kilowatt hours per year[8] and 710,350 cubic feet per month,[9] respectively. Adherence to Title 24 standards and California Green Building standards would reduce electrical and natural gas demand. In addition, each new building on the campus would be certified LEED Silver, further reducing electrical and natural gas demand. As implementation of the proposed project would only result in a net increase of 0.1 million kilowatt hours of electricity per year and 20,550 cubic feet of

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7 Based on a solid waste generation rate of 0.8 pounds/day/student (14,840 students [future] x 0.8 pounds/day/student = 11,872 pounds).

8 Based on an electrical demand rate of 11.55 kilowatt/square feet/year (353,500 gross square feet [future] x 11.55 kWh/sf/year = 4,082,925 kilowatt-hours per year)

9 Based on an natural gas demand rate of 2.0 cubic feet/square feet/month (353,500 gross square feet [future] x 2.0 cf/sf/mo = 707,000 cubic feet per month).

natural gas per month, no upgrades to the existing electrical and natural gas distribution facilities would be required. However, minor improvements to the electrical and natural gas distribution system may be required due to the need for new connections and extensions.

The physical environmental effects of these minor improvements to the campus electrical and natural gas distribution system are addressed throughout this EIR, including but not limited to, in **Sections 4.2, Air Quality; Section 4.3, Biological Resources; Section 4.5, Greenhouse Gas Emissions; Section 4.6, Hydrology and Water Quality**; and **Section 4.8, Noise**. Due to the limited ground disturbance needed for connections and extensions, construction-phase air quality and noise impacts would also be less than significant. Impacts related to the construction of electrical and natural gas distribution system improvements on the campus would be less than significant.

4.11.4.5 Cumulative Impacts and Mitigation Measures

Full development of the campus under the 2025 Updated FMP, in conjunction with approved and pending projects in the City of San José, would result in the demand for additional potable and non-potable water, water and wastewater treatment capacity, solid waste disposal capacity, and energy demand. However, as indicated above, the increase in water demand and wastewater and solid waste generated under 2025 Updated FMP would be accommodated by existing water supplies, and treatment and landfill capacity. In addition, the demand for electricity and natural gas under the 2025 Updated FMP would not require new or expanded facilities. Furthermore, development under the 2025 Updated FMP would continue to implement existing water conservation and solid waste recycling programs to reduce the Campus's water use, wastewater generation, and solid waste generation and disposal. Finally, development under the 2025 Updated FMP would adhere to Title 24 standards and California Green Building standards and each new building on the campus would be certified LEED Silver, thus reducing the Campus's electrical and natural gas demand. As a result, the project's contribution to the cumulative impacts on utilities would not be considerable.

4.11.5 REFERENCES

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5.0 ALTERNATIVES

5.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an EIR describe a range of reasonable alternatives to the project or to the location of the project that could feasibly avoid or lessen any significant impacts while substantially attaining the basic objectives of the proposed project. An EIR should also evaluate the comparative merits of the alternatives. This section sets forth potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the *2013 State CEQA Guidelines*[1] pertaining to the alternatives analysis are summarized below:

- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.
- The range of alternatives required in an EIR is governed by a "rule of reason;" therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.
- The No Project alternative shall be evaluated along with its impact. The No Project analysis shall discuss the existing conditions at the time the notice of preparation is published. Additionally, the analysis shall discuss what would be reasonably expected to occur at the project site in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.
- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

The range of feasible alternatives is selected and discussed in a manner intended to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional

1 California Code of Regulations, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.6.

boundaries, and whether the applicant could reasonably acquire, control, or otherwise have access to an alternative site.[2]

5.2 PROJECT OBJECTIVES

The primary objectives of the 2025 Updated Facilities Master Plan (FMP) for the Evergreen Valley College (EVC) campus and the individual projects it includes are:

- keep pace with and anticipate the changing needs of the students and the communities served by the College;
- develop a Facilities Plan that supports the anticipated courses, programs, and services of the College for the next decade, and assures that the plan is flexible enough in design to accommodate changes in instructional methodology, technology, and delivery systems;
- update the existing campus and provide modern, attractive facilities appropriate for the instructional programs and support services offered;
- clarify and fix distinct identities of three main areas (hubs) on the campus;
- draw activity out of isolated clusters and into the pedestrian streets;
- visually connect the campus to the larger surroundings;
- establish a clear differentiation between the "front" and "rear" entrances to the campus; and
- create a vehicle-free inner campus.

5.3 ALTERNATIVES EVALUATED IN DETAIL

An EIR must briefly describe the rationale for selection and rejection of alternatives. The lead agency may make an initial determination as to which alternatives are feasible, and therefore merit in-depth evaluation, and which are infeasible. Alternatives considered for detailed evaluation in this EIR include potential alternate projects that meet most of the project's objectives while eliminating or reducing significant environmental impacts identified in **Section 4.0, Environmental Impact Analysis**.

Alternatives considered in this EIR for detailed evaluation include:

- Reduced Enrollment Capacity
- No Project/1999 Facilities Master Plan

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2 California Code of Regulations, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.6(f)(1).

5.4 ALTERNATIVES ELIMINATED FROM FUTURE CONSIDERATION

Alternatives that are remote or speculative, or have effects that cannot be reasonably predicted, need not be considered.[3] Three alternatives were considered by the Campus but eliminated from further consideration because they were found to be infeasible. These alternatives are described below along with a brief explanation of the reasons for their exclusion.

5.4.1 Alternate Location

Construction of the proposed facilities at an alternative location was not included as a project alternative because of the infeasibility of such an alternative, and the lack of evidence that such an alternative would avoid or substantially reduce the significant impacts of the proposed project. Even if constructing the new facilities on another site were feasible from an economic or educational standpoint, establishment of a new campus of this size would take many years to obtain funding, find a feasible site, and prepare and implement campus plans. For these reasons, this alternative was determined to be infeasible and was not carried forth in the EIR for detailed evaluation.

5.4.2 Shifting Growth to the San Jose City College Campus

The San Jose City College (SJCC) campus is located in central San Jose at the intersection of Moorpark Avenue and Leigh Avenue. The SJCC campus currently has plans for expansion that would allow it to accommodate approximately 14,450 students. The 2025 Updated FMP for the SJCC campus includes replacement and construction of classroom facilities, additional physical education facilities, and expansion of parking lots. However, the campus at buildout under its 2025 Updated FMP cannot accommodate the additional students that would be “shifted” from the EVC campus as capacity even after implementation of the 2025 Updated FMP on the SJCC campus would be limited. Furthermore, it is not known how many of the students from EVC would attend SJCC, considering that it is approximately 9 miles west of the EVC campus. For these reasons, this alternative was determined to be infeasible and was not carried forth in the EIR for detailed evaluation.

5.4.3 No Project/No Development

Section 15126.6 of the *2013 State CEQA Guidelines* states that “the purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.” Under this alternative no demolition or new construction would occur on the EVC campus. Enrollment on the campus would either be capped at

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[3] California Public Resources Code, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.6(f)(3).

approximately 11,980 students or would increase slightly, with the additional students being accommodated in existing facilities. However, this alternative would not meet any of the project objectives contained in the 2025 Educational Master Plan for the EVC campus nor would it meet the projected need for new facilities to meet the growing demand for higher education. For these reasons, this is alternative is considered infeasible and was not carried forth in the EIR for detailed evaluation.

5.5 ALTERNATIVE IMPACT ANALYSIS

This subsection presents an analysis of the project alternatives, including the following:

- Reduced Enrollment Capacity
- No Project/1999 Facilities Master Plan

5.5.1 Alternative 1: Reduced Enrollment Capacity

Description and Analysis

This alternative would increase campus enrollment by 2025 but the increase would be 50 percent of the increase under the proposed 2025 Updated FMP. Under the 2025 Updated FMP, enrollment capacity would increase by approximately 2,860 students over the current enrollment level of about 11,980 students, reaching approximately 14,840 students by 2025. Under the Reduced Enrollment Capacity alternative, enrollment capacity would only increase by approximately 1,430 students over the current enrollment level, to about 13,410 students by 2025. Less building space would also be needed to serve the student population under this alternative as compared to the proposed project. Under the 2025 Updated FMP a total of approximately 355,150 square feet of building space would be required to accommodate the projected student population by 2025, which is an increase of about 10,250 square feet above existing conditions. Under the Reduced Enrollment Capacity alternative, approximately 320,930 square feet[4] of building space would be required to accommodate the projected student population by 2025, which is a decrease of about 23,970 square feet compared to existing conditions. Therefore, the overall extent and duration of construction activity under this alternative would be lower than required for the proposed project.

4 Assuming the same ratio of students to building space as the 2025 Updated FMP, the amount of building space under the Reduced Enrollment Capacity Alternative would be 320,930 square feet based on a student population of 13,410 under the alternative.

Aesthetics

Physical development of the campus under the Reduced Enrollment Capacity Alternative is anticipated to be less extensive than envisioned under the 2025 Updated FMP. The change to the visual character of the campus is anticipated to be comparable to that of the proposed project, although aesthetic impacts under this alternative would be somewhat reduced compared to the 2025 Updated FMP because of the reduction in development of new facilities. However, mitigation to reduce potentially significant visual impacts due to the loss of trees to a less than significant level would still be required, similar to the 2025 Updated FMP. Overall, aesthetic impacts under this alternative would be reduced compared to the 2025 Updated FMP.

Air Quality

Construction associated with the 2025 Updated FMP would result in short-term increases in criteria pollutants emissions from construction equipment, grading and trenching activities, worker trips, and on-road diesel trucks. However, these emissions would not exceed construction thresholds of significance. Construction under the Reduced Enrollment Capacity Alternative would also result in increased criteria pollutant emissions from construction activities but would result in lower emissions as less building space (320,930 square feet) would be built on the campus compared to the amount of building space (355,150 square feet) under 2025 Updated FMP. For these reasons, the proposed project's less than significant air quality impacts during construction would be further reduced under this alternative.

Buildout of the campus under the 2025 Updated FMP would add mobile, stationary, and area sources to the campus site that would result in long-term increases in criteria pollutants emissions. However, while total emissions for reactive organic gases (ROG), oxides of nitrogen (NOx), carbon monoxide (CO), fine particulate matter (PM10), and respirable particulate matter (PM2.5) would slightly increase over existing conditions, operational emissions associated with the day-to-day activities of the 2025 Updated FMP would not exceed any of the operational thresholds of significance. Growth under the Reduced Enrollment Capacity Alternative would also result in increased criteria pollutant emissions from increased traffic, but would result in lower emissions from traffic due to a smaller increase in daily trips (an additional 1,990 trips) compared to the 2025 Updated FMP (an additional 3,980 trips). In addition, criteria pollutant emissions from stationary and area sources under the Reduced Enrollment Capacity Alternative would be reduced as fewer facilities would be required. For these reasons, the proposed project's less than significant air quality impacts during operation would be further reduced under this alternative.

Biological Resources

As discussed in Section **4.3, Biological Resources**, five special-status species have the potential to occur on the project site: burrowing owl, white-tailed kite, Cooper's hawk, pallid bat, and long-eared myotis. Implementation of the 2025 Updated FMP could have a substantial adverse effect on these special-status species as demolition and construction associated with the proposed project could disturb active nests or roosts. However, implementation of proposed mitigation that requires habitat surveys, preconstruction nesting bird surveys, and roosting bat habitat evaluation before demolition and construction of buildings and improvements associated with the 2025 Updated FMP would reduce impacts to a less than significant level. Development on the campus under Reduced Enrollment Capacity Alternative could also have a substantial adverse effect on special-status species, as demolition and construction of buildings and improvements associated with this alternative could also disturb nests and roosts, although the extent of disturbance would not be as great as less area would be disturbed under this alternative. Impacts related to biological resources under this alternative could be slightly reduced compared to the 2025 Updated FMP because of the reduction in development of new facilities, but would still be significant. Projects under the Reduced Enrollment Capacity Alternative would be required to implement the same mitigation measures as the 2025 Updated FMP, and thus impacts would be reduced to a less than significant level.

Geology and Soils

Development under the 2025 Updated FMP could expose people and structures on the campus to significant adverse effects associated with seismic ground shaking and landslides. With implementation of mitigation, this impact would be reduced to a less than significant level. Fewer facilities would be constructed and therefore fewer people and structures would be exposed to geologic hazards under the Reduced Enrollment Capacity Alternative, and impacts would therefore be slightly lower, although still significant, under this alternative. The same mitigation would be required for any construction occurring under this alternative and impacts would be reduced to a less than significant level.

Greenhouse Gas Emissions

Construction associated with the 2025 Updated FMP would generate greenhouse gas (GHG) emissions, both directly and indirectly. However, as shown by the analysis in **Section 4.5, Greenhouse Gas Emissions**, the construction emissions would be small and would result in a less than significant effect. Construction associated with the Reduced Enrollment Capacity Alternative would also generate GHG emissions. However, these emissions would be lower as less building space (320,930 square feet) would be built on the campus compared to the amount of building space (355,150 square feet) under 2025 Updated FMP.

The operation of campus facilities pursuant to the 2025 Updated FMP would generate GHG emissions, both directly and indirectly. However, as shown by the analysis in **Section 4.5, Greenhouse Gas Emissions**, while the emissions would be greater compared to current levels, the impact would be less than significant as the emissions would not exceed the Bay Area Air Quality Management District (BAAQMD) threshold for operational GHG emissions. The Reduced Enrollment Capacity Alternative would result in less development and a reduced daily population in comparison to the 2025 Updated FMP. As a result, this alternative would result in reduced GHG emissions, and the less than significant GHG impact of the 2025 Updated FMP would be further reduced under this alternative.

Hydrology and Water Quality

Implementation of the 2025 Updated FMP would increase impervious surfaces on the campus. However, compliance with National Pollutant Discharge Elimination System (NPDES) requirements would not result in current stormwater flow rates being exceeded or water quality impacts, and this impact is less than significant. The Reduced Enrollment Capacity Alternative would also increase impervious surfaces, but not to the same extent as the proposed project as less land would be disturbed. As a result, hydrology and water quality impacts under this alternative would be reduced compared to the 2025 Updated FMP. Development under this alternative would also comply with NPDES requirements and result in less than significant impacts with regard to stormwater flow and water quality.

Land Use and Planning

The 2025 Updated FMP would generally be consistent with local and regional land use plans. Development under the Reduced Enrollment Capacity Alternative would also generally be consistent with local and regional land use plans as the same types of academic uses would be constructed. Therefore, this alternative would have similar, less than significant land use and planning impacts compared to implementation of as the 2025 Updated FMP.

Noise

Buildout of the campus under the 2025 Updated FMP would increase traffic noise levels at noise-sensitive receptors located along surrounding roadways. As discussed in **Section 4.8, Noise**, as background growth in the region would result in a significant and unavoidable noise impact, the proposed project's impact would be less than significant. Growth under the Reduced Enrollment Capacity Alternative would also contribute to increased traffic noise levels, but would reduce the impact of the proposed project by limiting campus growth to an enrollment capacity of approximately 13,410 students instead of about 14,840 students. The reduction in campus-related vehicle trips due to lower enrollment capacity would decrease the overall traffic and traffic-related noise impacts. As with the proposed project, there would be no significant operational noise impacts.

The proposed project's construction vibration impacts to on-site sensitive receptors (i.e., academic buildings) would be significant and unavoidable with mitigation. Construction vibration impacts under the Reduced Enrollment Capacity Alternative would be similar, as construction would take place close to academic buildings on the campus, and would also be significant and unavoidable with mitigation. Even with the implementation of mitigation, the proposed project's construction noise impacts to on-site and off-site sensitive receptors (i.e., residences, parks, and institutional uses) would be significant and unavoidable. Construction noise impacts under this alternative would be similar as construction would also take place close to academic buildings on the campus and within similar distances of off-campus sensitive receptors. Therefore, this alternative would not reduce vibration and noise impacts during construction as compared to implementation of the 2025 Updated FMP.

Public Services – Fire Protection

Implementation of the 2025 Updated FMP would increase the demand for fire protection services, but would result in a less than significant impact related to the provision of fire protection services. The Reduced Enrollment Capacity Alternative would also increase the demand for fire protection services, but not to the same extent as the proposed project as fewer students would be on the campus under this alternative. As a result, the alternative would further reduce the less than significant impact of the 2025 Updated FMP on fire protection services.

Public Services – Law Enforcement

Implementation of the 2025 Updated FMP would increase the demand for police services, but would result in a less than significant impact related to the provision of police services. The Reduced Enrollment Capacity Alternative would also increase the demand for police services, but not to the same extent as the proposed project as fewer students would be on the campus under this alternative. As a result, the alternative would further reduce the less than significant impact of the 2025 Updated FMP on police services.

Transportation and Traffic

Buildout of the campus under the 2025 Updated FMP under 2025 plus project conditions would contribute traffic to five study intersections that would have substandard operating conditions. However, the proposed project would only negatively affect three of them according to City of San José, Santa Clara Valley Transportation Authority (VTA), and Caltrans standards. Improvements are available for two of the intersections (San Felipe Road & Yerba Buena Road and Aborn Road & White Road/San Felipe Road), and mitigation is provided that requires the proposed project to pay its fair share for the cost of the improvements. However, as these intersections are controlled by the City of San Jose, the District cannot require the construction of these improvements, and this impact would be significant and unavoidable. No mitigation is feasible to reduce the impact at a third intersection (US 101 SB Off-Ramp & Yerba Buena Road), and impact would be significant and unavoidable.

Growth under the Reduced Enrollment Capacity Alternative would also contribute traffic to intersections that would have substandard operating conditions, but would reduce the impact of the proposed project by limiting campus growth to an enrollment capacity of approximately 13,410 students instead of about 14,840 students. Since there would be fewer students, faculty and staff commuting to the EVC campus, this alternative would generate approximately 158 additional AM peak-hour trips and 186 PM additional peak-hour trips. The net new trips generated by this alternative constitute about 50 percent of the net new trips generated by campus growth under the 2025 Updated FMP. Therefore, the alternative would reduce the overall traffic impact of the proposed project. However, this alternative would substantially lessen, but not avoid, the significant and unavoidable traffic impacts at three intersections associated with the proposed project.

Buildout of the campus under the 2025 Updated FMP under existing plus project conditions would contribute traffic to one study intersection (East Capitol Expressway & Aborn Road) that operates at substandard conditions. However, the proposed project would not negatively the intersection according to City of San José, VTA, and Caltrans standards, and this impact is less than significant. Growth under the Reduced Enrollment Capacity Alternative would also contribute traffic to an intersection that would have substandard operating conditions, but would reduce the impact of the proposed project as fewer trips would be generated. Therefore, the impact under this alternative would also be less than significant.

Growth in the region would result in significant impacts along freeway segments in the study area. However, buildout of the campus under the 2025 Updated FMP under existing plus project condition and 2025 plus project conditions would not conflict with Congestion Management Program (CMP) standards for freeway segments, and this impact is less than significant. Growth in the region would result in significant impacts along freeway segments in the study area under the Reduced Enrollment Capacity Alternative. However, this alternative, like the proposed project, would not conflict with CMP standards for freeway segments, and the impact would also be less than significant. Impacts under this alternative would be reduced compared to the 2025 Updated FMP as fewer trips would occur.

Utilities – Water

The proposed project would increase potable water demand on the campus by approximately 20,080 gallons per day (gpd). As discussed in **Section 4.11, Utilities and Service Systems**, since the San Jose Municipal Water System's (SJMWS) Urban Water Management Plan (UWMP) accounts for future growth contained in the City's General Plan, including future growth on the campus, the impact resulting from the increase in demand for potable water under the 2025 Updated FMP is considered less than significant. Enrollment under the Reduced Enrollment Capacity Alternative would increase the student population on the campus by approximately 1,430 students, and thus increase water demand by about 32,890 gpd.[5] However, this estimate does not take into account campus plans to replace potable water utilized for cooling in the Central Energy Plant cooling tower with recycled water. The Central Energy Plant currently utilizes approximately 45,700 gpd of potable water for cooling. After accounting for the replacement of potable water with non-potable water, potable water demand on the campus under the Reduced Enrollment Capacity Alternative would be reduced by approximately 262,730 gpd, a decrease of about 12.810 gpd or 7 percent over existing conditions. As the amount of water demanded under the Reduced Enrollment Capacity Alternative would be less than existing conditions, the impact to water supply under this alternative would also be less than significant. As a result of reduced water demand, the, impact related to water demand under this alternative would be reduced compared to the 2025 Updated FMP.

The proposed project would increase non-potable water demand on the campus by approximately 45,700 gpd. As discussed in **Section 4.11, Utilities and Service Systems,** there is enough recycled water in the South Bay Recycled Water system to meet the Campus' needs, and this impact is less than significant. The Reduced Enrollment Capacity Alternative would increase non-potable water demand on campus by the same amount. Therefore, this alternative would have similar, less than significant impacts on recycled water supply as the 2025 Updated FMP.

Utilities – Wastewater

The proposed project would increase wastewater generated on the campus by approximately 0.06 million gallons per day (mgd) as a result of an increase in enrollment of about 2,860 students. As discussed in **Section 4.11, Utilities and Service Systems**, sufficient capacity currently exists to treat wastewater generated by the proposed project, as excess capacity at the San José/Santa Clara Water Pollution Control Plant (WPCP) allocated to the City of San José is available and the increase attributed to the proposed project is not substantial. Therefore, the proposed project's impacts related to wastewater service would

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5 Based on a water demand factor of 23 gpd/students (1,430 students X 23 gpd/students = 32,890 gpd).

be less than significant. Enrollment under the Reduced Enrollment Capacity Alternative would increase the student population on the campus by approximately 1,430 students, and thus increase wastewater generation by about 0.03 mgd.[6] As the amount of wastewater generated under the Reduced Enrollment Capacity Alternative would be less than the amount generated under the proposed project, the less than significant impact to treatment capacity under the proposed project would be further reduced under this alternative.

Utilities – Solid Waste

The proposed project would increase solid waste generated on the campus by approximately 2,288 pounds per day as a result of an increase in enrollment of about 2,860 students. As discussed in **Section 4.11, Utilities and Service Systems**, impacts related to the increase in solid waste generation as a result of the proposed project would be less than significant, as adequate disposal capacity is available in the County over the next 15 years and the increase attributed to the proposed project is not substantial. Enrollment under the Reduced Enrollment Capacity Alternative would increase the student population on campus by approximately 1,430 students, and thus increase solid waste generation by about 1,144 pounds per day.[7] As the amount of solid waste generated under the Reduced Enrollment Capacity Alternative would be less than the amount generated under the proposed project, the less than significant impact to disposal capacity under the proposed project would be further reduced under this alternative.

Utilities – Electricity and Natural Gas

The proposed project would increase electrical and natural gas consumption on the campus by approximately 0.1 million kilowatt-hours per year and 10,273 cubic feet per month, respectively, due to an increase of about 10,250 square feet of building space. As discussed in **Section 4.11, Utilities and Service Systems**, impacts related to the increase in electricity and natural gas consumption as a result of the proposed project would be less than significant as the increase attributed to the proposed project is not substantial. Building space on the campus under the Reduced Enrollment Capacity Alternative would decrease by approximately 23,970 square feet, thus decreasing electrical and natural gas consumption on the campus by about 0.3 million kilowatt-hours per year[8] and 47,940 cubic feet per month[9], respectively. As the amount of electricity and natural gas consumed under the Reduced Enrollment Capacity

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6 Based on 90 percent of campus water demand (32,890 gpd x 90 percent = 29,601 gpd).

7 Based on a solid waste generation rate of 0.8 pounds/day/student (1,430 students x 0.8 pounds/day/student = 1,144 pounds).

8 Based on an electrical demand rate of 11.55 kilowatt/square feet/year (23,970 gross square feet x 11.55 kWh/sf/year = 276,854 kilowatt-hours per year)

9 Based on an natural gas demand rate of 2.0 cubic feet/square feet/month (23,970 gross square feet x 2.0 cf/sf/mo = 47,940 cubic feet per month).

Alternative would be less than the amount consumed under the proposed project, the less than significant impact related to electricity and natural gas under the proposed project would be further reduced under this alternative.

Conclusion and Relationship to Project Objectives

The Reduced Enrollment Capacity Alternative would reduce impacts related to aesthetics, construction and operational air quality, biological resources, geology and soils, construction and operational GHG, hydrology and water quality, operational noise, public services, traffic, and utilities. Impacts related to land use, construction vibration, and noise, and recycled water would be comparable to those of the proposed project.

By reducing enrollment capacity, this alternative would not achieve the following key objectives to the same extent as the proposed project:

- Keep pace with and anticipate the changing needs of the students and the communities served by the College; and
- Develop a Facilities Plan that supports the anticipated courses, programs, and services of the College for the next decade, and assures that the plan is flexible enough in design to accommodate changes in instructional methodology, technology, and delivery systems.

5.5.2 Alternative 2: No Project/1999 Facilities Master Plan

Description and Analysis

The *2013 State CEQA Guidelines* require the analysis of a No Project Alternative.[10] This analysis must discuss existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the project were not to be approved based on current plans, site zoning, and consistent with available infrastructure and community services.

Under the No Project Alternative, the 2025 Updated FMP would not be implemented. The EVC campus would not grow beyond the capacity of its existing facilities, as all the facilities approved under the Campus' 1999 Facilities Master Plan have been built. However, the Campus' previous plan did provide for an enrollment capacity of approximately 16,000 students. As a result, under the No Project Alternative, the enrollment on the campus could increase by approximately 4,020 students over the current enrollment level of about 11,980 students.

10 *2013 State CEQA Guidelines*, Section 15125.6(e).

Aesthetics

Since the 2025 Updated FMP would not be implemented under the No Project Alternative, the campus would remain in its current condition for the foreseeable future. Therefore, the visual character of the campus, including its overall configuration, architectural styles, and landscaping, would not be altered. In contrast, under the proposed project, the visual character of the campus would change, and impacts due to the loss of trees on the campus were determined to be potentially significant as they are considered visual resources. However, with implementation of mitigation, impacts would be reduced to a less than significant level. As no trees would be lost under the No Project Alternative, visual impacts that would occur with the proposed project and require mitigation would be avoided. Therefore, this alternative would avoid any aesthetics impacts that would occur with the 2025 Updated FMP.

Air Quality

Construction associated with the 2025 Updated FMP would result in short-term increases in criteria pollutants emissions from construction equipment, grading and trenching activities, worker trips, and on-road diesel trucks. However, these emissions would not exceed construction thresholds of significance. No construction would occur under the No Project Alternative since all the facilities approved under the Campus' 1999 Facilities Master Plan have been built, and as a result no criteria pollutant emissions would be emitted. Therefore, this alternative would avoid air quality impacts that would occur with the 2025 Updated FMP during construction.

Buildout of the 2025 Updated FMP would add mobile, stationary, and area sources to the campus site that would result in criteria pollutants emissions. However, while total emissions for ROG, NOx, CO, PM10, and PM2.5 would slightly increase over existing conditions, operational emissions associated with the day-to-day activities of the 2025 Updated FMP would not exceed any of the operational thresholds of significance. Criteria pollutant emissions from stationary and area sources would not increase under the No Project Alternative, as no new facilities would be constructed under this alternative. However, criteria pollutant emissions from traffic could be greater under the No Project Alternative than under the 2025 Updated FMP as enrollment under the No Project Alternative could reach approximately 16,000 students instead of about 14,840 under the proposed project, thus generating a greater number of trips (5,572 trips) than the proposed project (3,980 trips). However, the increase in criteria pollutant emissions from traffic under this alternative would not increase any of the operational thresholds of significance. As a result, while air quality impacts during operation would be greater under this alternative, the impact would remain less than significant.

Biological Resources

As discussed in **Section 4.3, Biological Resources**, five special-status wildlife species have the potential to occur on the project site: burrowing owl, white-tailed kite, Cooper's hawk, pallid bat, and long-eared myotis. Implementation of the 2025 Updated FMP could have a substantial adverse effect on these special-status species, as demolition and construction associated with the proposed project could disturb active nests or roosts. However, implementation of proposed mitigation that requires habitat surveys, preconstruction nesting bird surveys, and roosting bat habitat evaluation before demolition and construction of buildings and improvements associated with the 2025 Updated FMP would reduce impacts to a less than significant level. No new facilities would be constructed under the No Project Alternative, and thus potentially significant impacts related to special-status wildlife species would not occur under this alternative. Therefore, this alternative would avoid any impacts related to biological resources that would occur with the 2025 Updated FMP.

Geology and Soils

Development under the 2025 Updated FMP could expose people and structures on the campus to significant adverse effects associated with seismic ground shaking or landslides. With implementation of mitigation, this impact would be reduced to a less than significant level. No new facilities would be constructed under the No Project Alternative, and thus potentially significant impact related to seismic ground shaking or landslides would not occur under this alternative. Therefore, this alternative would avoid any impacts related to geology and soils that would occur with the 2025 Updated FMP.

Greenhouse Gas Emissions

Construction associated with the 2025 Updated FMP would generate GHG emissions, directly and indirectly. However, as shown by the analysis in **Section 4.5, Greenhouse Gas Emissions**, the construction emissions would be small and would result in a less than significant effect. No construction would occur under the No Project Alternative since all the facilities approved under the Campus' 1999 Facilities Master Plan have been built, and as a result no GHG emissions would be emitted. Therefore, this alternative would avoid the less than significant GHG impact that would occur with the 2025 Updated FMP during construction.

Implementation of the 2025 Updated FMP would generate GHG emissions, directly and indirectly. However, as shown by the analysis in **Section 4.5, Greenhouse Gas Emissions**, while the emissions would be greater compared to current levels, the impact would be less than significant, as the emissions would not exceed the Bay Area Air Quality Management District (BAAQMD) threshold for operational GHG emissions. The No Project Alternative would not result in long-term increases in greenhouse gas emissions from stationary and area sources, as no new facilities would be constructed under this alternative. However, the alternative would result in greater GHG emissions from traffic than the 2025 Updated FMP as enrollment under the No Project Alternative could reach approximately 16,000 students instead of about 14,840 under the proposed project, thus generating a greater number of trips (5,572 trips) than the proposed project (3,980 trips). However, the increase in GHG emissions from traffic under this alternative would not exceed the BAAQMD threshold for operational GHG emissions. As a result, while GHG impacts during operation would be greater under this alternative, the impact would remain less than significant.

Hydrology and Water Quality

Implementation of the 2025 Updated FMP would increase impervious surfaces on the campus. However, compliance with NPDES requirements would not result in current stormwater flow rates being exceeded or in water quality impacts, and this impact would be less than significant. The No Project Alternative would maintain the existing coverage of impervious surfaces on the campus, and no impact would occur. As a result, the alternative would avoid the less than significant hydrology and water quality impacts that would occur with the 2025 Updated FMP.

Land Use and Planning

The 2025 Updated FMP would generally be consistent with local and regional land use plans, and this impact would be less than significant. Under the No Project Alternative, no development would occur on the campus, and no impact would occur. Therefore, this alternative would avoid the less than significant impact related to land use and planning that would occur with the 2025 Updated FMP.

Noise

Buildout of the campus under the 2025 Updated FMP would increase traffic noise levels at noise-sensitive receptors located along surrounding roadways due to an increase in trips. As discussed in **Section 4.8, Noise**, as background growth in the region would result in a significant and unavoidable noise impact, the proposed project's impact would be less than significant. Enrollment growth and the related increase in vehicle trips under the No Project Alternative would also contribute to increased traffic noise levels. Traffic noise levels under the No Project Alternative would be greater than the 2025 Updated FMP, as enrollment under the No Project Alternative could reach approximately 16,000 students instead of about 14,840 under the proposed project, thus generating a greater number of new vehicle trips. Traffic noise impacts would be greater, but would still be less than significant under this alternative.

The proposed project's construction vibration impacts to on-site sensitive receptors would be significant and unavoidable even with mitigation. Similarly, even with the implementation of mitigation, the proposed project's construction noise impacts to on-site and off-site sensitive receptors would be significant and unavoidable. No new facilities would be constructed under the No Project Alternative, and thus significant and unavoidable construction noise and vibration impacts of 2025 Updated FMP would not occur under this alternative. Therefore, this alternative would avoid the significant and unavoidable construction noise and vibration impacts that would occur with the 2025 Updated FMP.

Public Services – Fire Protection

Implementation of the 2025 Updated FMP would increase the demand for fire protection services, but would result in a less than significant impact related to the provision of fire protection services. Enrollment growth under the No Project Alternative would also increase the demand for fire protection services. However, demand under this alternative would be greater than under the 2025 Updated FMP, as enrollment capacity under the No Project Alternative could reach approximately 16,000 students instead of about 14,840 under the proposed project. However, the increase in students would not be substantial and thus would not result in the need for additional fire facilities. While impacts to fire protection services would be greater under this alternative, the impact related to the provision of fire protection services would also be less than significant.

Public Services – Law Enforcement

Implementation of the 2025 Updated FMP would increase the demand for police services, but would result in a less than significant impact related to the provision of police services. Enrollment growth under the No Project Alternative would also increase the demand for police services. However, demand under this alternative would be greater than under the 2025 Updated FMP, as enrollment under the No Project Alternative could reach approximately 16,000 students instead of about 14,840 under the proposed project. However, the increase in students would not be substantial and thus would not result in the need for additional police facilities. While impacts to police services could be greater under this alternative the impact related to the provision of fire protection services would also be less than significant.

Transportation and Traffic

Buildout of the campus under the 2025 Updated FMP under 2025 plus project conditions would contribute traffic to five study intersections that would have substandard operating conditions. However, the proposed project would only negatively affect three of them according to City of San José, VTA, and Caltrans standards. Improvements are available for two of the intersections (San Felipe Road & Yerba

Buena Road and Aborn Road & White Road/San Felipe Road), and mitigation requires the proposed project to pay its fair share for the cost of the improvements. However, as these intersections are controlled by the City of San Jose, the District cannot require the construction of these improvements, and this impact would be significant and unavoidable. No mitigation is feasible to reduce the impacts at a third intersection (US 101 SB Off-Ramp & Yerba Buena Road), and the impact at this location would be significant and unavoidable.

Enrollment growth under the No Project Alternative would also contribute traffic to intersections that would have substandard operating conditions. However, the contribution the No Project Alternative to this impact would be greater than the 2025 Updated FMP, as enrollment under this alternative could reach approximately 16,000 students instead of about 14,840 students under the proposed project, thus resulting in a greater number of trips. Since there would be more students, faculty, and staff commuting to the EVC campus, this alternative could generate up to approximately 442 additional AM peak-hour trips and 523 PM additional peak-hour trips. The new trips generated under this alternative constitute about 140 percent of the new trips generated by campus growth under the 2025 Updated FMP. Therefore, the No Project Alternative would increase the overall traffic impact of the proposed project, and the significant and unavoidable traffic impacts would be greater under this alternative.

Buildout of the campus under the 2025 Updated FMP under existing plus project conditions would contribute traffic to one study intersection (East Capitol Expressway & Aborn Road) that operates at substandard conditions. However, the proposed project would not negatively the intersection according to City of San José, VTA, and Caltrans standards, and this impact is less than significant. The contribution the No Project Alternative to this impact would be greater than the 2025 Updated FMP, as enrollment under this alternative would greater than under the proposed project, thus resulting in a greater number of trips. However, the increase in trips would not negatively affect any study area intersections under existing condition, and the impact of this alternative would also be less than significant.

Growth in the region would result in significant impacts along freeway segments in the study area. However, buildout of the campus under the 2025 Updated FMP under existing plus project conditions and 2025 plus conditions would not conflict with CMP standards for freeway segments, and this impact is less than significant. Growth in the region would result in significant impacts along freeway segments in the study area under the No Project Alternative. However, this alternative, like the proposed project, would not conflict with CMP standards for freeway segments, and the impact would also be less than significant. Impacts under this alternative could be greater compared to the 2025 Updated FMP as more trips could occur.

Utilities – Water

The proposed project would increase potable water demand on the campus by approximately 20,080 gpd. As discussed in **Section 4.11, Utilities and Service Systems,** since the SJMWS's UWMP accounts for future growth contained in the City's General Plan, including future growth on the campus, the increase in demand under the 2025 Updated FMP would have a less than significant impact related to water supply. Under the No Project Alternative, the student population on campus could increase by approximately 4,020 students, and thus increase water demand on the campus by up to about 92,460 gpd[11]. However, this estimate does not take into account campus plans to replace potable water utilized for cooling in the Central Energy Plant cooling tower with recycled water. The Central Energy Plant currently utilizes approximately 45,700 gpd of potable water for cooling. After accounting for the replacement of potable water with non-potable water, potable water demand on the campus under the No Project Alternative would be reduced by approximately 322,300 gpd, an increase of about 46,760 gpd or 7 percent over existing conditions. As the SJMWS's UWMP has accounted for growth on campus, adequate water supplies are available to serve growth on campus under this alternative, and this impact is considered less than significant. Impacts related to water demand under the No Project Alternative would be greater than under the 2025 Updated FMP.

The proposed project would increase non-potable/recycled water demand on the campus by approximately 45,700 gpd. As discussed in **Section 4.11, Utilities and Service Systems,** there is enough recycled water in the South Bay Recycled Water system to meet the Campus' needs, and this impact would be less than significant. The No Project Alternative would increase non-potable water demand on the campus by the same amount. Therefore, this alternative would have similar, less than significant impact related to recycled water as the 2025 Updated FMP.

Utilities – Wastewater

The proposed project would increase wastewater generated on the campus by approximately 0.06 mgd as a result of an increase in enrollment of about 2,860 students. As discussed in **Section 4.11, Utilities and Service Systems**, sufficient capacity currently exists to treat wastewater generated by the proposed project at 2025 Updated FMP buildout as excess capacity at the San José/Santa Clara WPCP allocated to the City of San José is available and the increase attributed to the proposed project is not substantial. Therefore, impacts related to wastewater service would be less than significant. Enrollment under the No Project Alternative could increase the student population on the campus by approximately 4,020

[11] Based on a water demand factor of 23 gpd/students (4,020 students x 23 gpd/students = 92,460 gpd)

students, and thus increase wastewater generated on the campus by up to about 0.08 mgd.[12] As discussed in **Section 4.11, Utilities and Service Systems**, the City has approximately 38.8 mgd in excess capacity at the San José/Santa Clara WPCP. Thus the impact related to wastewater generation under the No Project Alternative, although greater than under the 2025 Updated FMP, would be less than significant.

Utilities – Solid Waste

The proposed project would increase solid waste generated on campus by approximately 2,288 pounds per day as a result of an increase in enrollment of about 2,860 students. As discussed in **Section 4.11, Utilities and Service Systems,** impacts related to the increase in solid waste generation as a result of the proposed project would be less than significant, as adequate disposal capacity in the County is available over the next 15 years and the increase attributed to the proposed project is not substantial. Enrollment under the No Project Alternative could increase the student population on campus by approximately 4,020 students, and thus increase solid waste generated on the campus by up to about 3,216 pounds per day[13] compared to existing conditions. This increase is not substantial and, as discussed in **Section 4.11, Utilities and Service Systems**, the County has adequate disposal capacity for up to 15 years, As a result, the impact related to solid waste generation under the No Project Alternative, although greater than under the 2025 Updated FMP, would be less than significant.

Utilities – Electricity and Natural Gas

The proposed project would increase electrical and natural gas consumption on the campus by approximately 0.1 million kilowatt-hours per year and 10,273 cubic feet per month, respectively, due to an increase of 10,250 square feet of building space on the campus. As discussed in **Section 4.11, Utilities and Service Systems,** impacts related to the increase in electricity and natural gas consumption as a result of the proposed project would be less than significant, as the increase attributed to the proposed project is not substantial compared to regional demand. The No Project Alternative would result in minor increases in electrical and natural gas demand, as no new facilities would be constructed and there would be only incremental increases in the use of existing facilities. The less than significant impact of the proposed project would be further reduced under this alternative.

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12 Based on 90 percent of campus water demand (92,460 gpd x 90 percent = 83,214 gpd).

13 Based on a solid waste generation rate of 0.8 pounds/day/student (4,020 students x 0.8 pounds/day/student = 3,216 pounds)

Conclusion and Relationship to Project Objectives

The No Project Alternative would avoid impacts related to aesthetics, construction air quality, biological resources, geology and soils, construction GHG emissions, hydrology and water quality, land use, construction vibration and noise, and utilities (electricity and natural gas). Impacts related to operational air quality, operational GHG, operational noise, public services, traffic, and utilities (potable water, wastewater, and solid waste) would be greater than those of the proposed project. Impacts related to non-potable water would be similar.

By not implementing the 2025 Updated FMP, this alternative would not achieve the following objectives:

- Keep pace with and anticipate the changing needs of the students and the communities served by the College;
- Develop a Facilities Plan that supports the anticipated courses, programs and services of the College for the next decade, and assures that the plan is flexible enough in design to accommodate changes in instructional methodology, technology, and delivery systems;
- Up-date the existing campus and provide modern, attractive facilities appropriate for the instructional programs and support services offered;
- Clarify and fix distinct identities of three main areas (hubs) on the campus;
- Draw activity out of isolated clusters and into the pedestrian streets;
- Visually connect the campus to the larger surroundings;
- Establish a clear differentiation between the "front" and "rear" entrances to campus; and
- Create a vehicle-free inner campus.

5.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The findings of the alternatives impact analysis discussed above are summarized in **Table 5.0-1, Comparison of Alternatives to the 2025 Updated FMP**. Of the alternatives analyzed in this document, the Reduced Enrollment Capacity Alternative is considered the environmentally superior alternative.

Table 5.0-1
Comparison of Alternatives to the 2025 Updated Facilities Master Plan

Environmental Issue Area	Proposed Project Impact (After Mitigation)	Alt. 1 – Reduced Enrollment Capacity	Alt. 2 – No Project
Aesthetics	Potentially significant (Less than significant)	Reduced Impact	None
Air Quality- Construction Emissions	Less than significant	Reduced Impact	None
Air Quality- Operational Emissions	Less than significant	Reduced Impact	Greater (still less than significant)
Biological Resources	Potentially significant (Less than significant)	Reduced Impact	None
Geology and Soils	Potentially significant (Less than significant)	Reduced Impact	None
Greenhouse Gas Emissions – Construction	Less than significant	Reduced Impact	None
Greenhouse Gas Emissions – Operational	Less than significant	Reduced Impact	Greater (still less than significant)
Hydrology and Water Quality	Less than significant	Reduced Impact	None
Land Use and Planning	Less than significant	Similar	None
Noise – Operational	Less than significant	Reduced Impact	Greater (still less than significant)
Noise – Construction	Significant (Significant and unavoidable)	Similar	None
Public Services - Fire Protection	Less than significant	Reduced Impact	Greater (still less than significant)
Public Services – Law Enforcement	Less than significant	Reduced Impact	Greater (still less than significant)
Transportation and Traffic	Significant (Significant and unavoidable)	Reduced Impact (still significant and unavoidable)	Greater (still significant and unavoidable)
Utilities – Potable Water	Less than significant	Reduced Impact	Greater (still less than significant)
Utilities –Non-Potable Water	Less than significant	Similar	Similar
Utilities – Wastewater	Less than significant	Reduced Impact	Greater (still less than significant)
Utilities - Solid Waste	Less than significant	Reduced Impact	Greater (still less than significant)
Utilities – Electricity and Natural Gas	Less than significant	Reduced Impact	None

The Reduced Enrollment Capacity Alternative would reduce impacts related to aesthetics, construction and operational air quality, biological resources, geology and soils, construction and operational GHG, hydrology and water quality, operational noise, public services, traffic, and utilities. Impacts related to land use, construction vibration, and noise, and non-potable water would be comparable to those of the proposed project.

By reducing enrollment capacity, this alternative would not achieve the following key objectives to the same extent as the proposed project:

- Keep pace with and anticipate the changing needs of the students and the communities served by the College.
- Develop a Facilities Plan that supports the anticipated courses, programs and services of the College for the next decade, and assures that the plan is flexible enough in design to accommodate changes in instructional methodology, technology, and delivery systems.

6.0 OTHER CEQA CONSIDERATIONS

6.1 INTRODUCTION

Sections 15126 and 15128 of the *2013 California Environmental Quality Act (CEQA) Guidelines* state that an Environmental Impact Report (EIR) must include a discussion of the following topics:

- Significant environmental effects which cannot be avoided if the proposed project is implemented
- Significant irreversible environmental changes
- Growth-inducing impacts of the proposed project
- A brief statement of the reasons why certain possible effects of a project have been determined not to be significant and therefore, are not evaluated in the Environmental Impact Report (EIR)

The following sections address each of these types of impacts based on the analyses included in **Section 4.0, Environmental Impact Analysis**. No comments were received in response to the Notice of Preparation (NOP) for this EIR from agencies or the public with respect to growth inducing effects or significant irreversible environmental changes that could result if the proposed project were implemented.

6.2 SIGNIFICANT UNAVOIDABLE EFFECTS

This section identifies significant impacts associated with implementation of the 2025 Updated Facilities Master Plan (FMP) that could not be mitigated to a less than significant level. As part of the certification process, the Board of Trustees of the San José/Evergreen Community College District (SJECCD) will make a final decision as to the significance of impacts and the feasibility of mitigation measures in this EIR. As detailed in **Section 4.0**, implementation of the 2025 Updated FMP would result in the following significant impacts that would not be mitigated to a less than significant level:

Impact NOI-4: **Construction on the campus pursuant to the 2025 Updated FMP could expose existing and future noise-sensitive receptors to elevated construction noise levels and result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.**

Impact NOI-5: **Construction on the campus pursuant to the 2025 Updated FMP could generate and expose persons on the campus to excessive groundborne vibration, although it would not expose off-campus receptors to excessive groundborne vibrations.**

Impact TRANS-1: **Implementation of the 2025 Updated FMP would conflict with City of San José standards for certain signalized and unsignalized intersections and VTA standards for CMP intersections under 2025 plus project conditions.**

6.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the *2013 State CEQA Guidelines* states that an EIR must include a discussion of any significant irreversible environmental changes that would be caused by a proposed project. Generally, a project would result in significant irreversible environmental changes if:

- the primary and secondary impacts would generally commit future generations to similar uses;
- the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy);
- the project would involve a large commitment of nonrenewable resources; or
- the project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project.

Implementation of the 2025 Updated FMP would continue to commit the Evergreen Valley College (EVC) campus site to institutional uses, thereby ruling out other land uses. The SJECCD's ownership of the campus represents a long-term commitment of campus lands to an institutional use. Restoration of the campus to pre-developed conditions is not feasible given the levels of disturbance and capital investment.

Resources that would be permanently and continually consumed by project implementation (construction and operation of facilities included in the 2025 Updated FMP) include water, natural gas, and fossil fuels. However, the consumption of these resources would not represent unnecessary, inefficient, or wasteful use of resources. The Campus has instituted several water conservation measures. These include the installation of low-flow fixtures in new buildings to minimize water consumption and a program to retrofit fixtures in existing buildings. In addition, the Campus plans on replacing potable water used for cooling in the Central Energy Plant cooling tower with non-potable water. The EVC campus would also comply with all applicable building codes including Title 24 standards and California Green Building standards, campus conservation features, and would ensure that all resources, including water, electricity, and natural gas, are conserved to the maximum extent feasible. Finally, each new building on the campus would be certified LEED Silver, further reducing water, electrical, and natural gas demand. It is also possible that over time new technologies or systems will emerge, or will become more cost-effective or user-friendly, to further reduce the Campus' reliance upon nonrenewable energy resources. Overall, the consumption of natural resources would increase at a lesser rate than the projected population increase due to the variety of energy and water conservation measures that the Campus has implemented and would continue to implement.

The *2013 State CEQA Guidelines* also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the project. While the EVC campus uses, transports, stores, and disposes of small amounts of hazardous wastes, as described in **Appendix 1.0, Notice of Preparation, Initial Study, and Scoping Comments**, the Campus complies with all applicable state and federal laws and existing campus programs, practices, and procedures related to hazardous materials, which reduces the likelihood and severity of accidents involving hazardous materials that could result in irreversible environmental damage. In the history of the campus, there have been no accidents resulting in irreversible environmental damage, indicating that current practices with respect to hazardous materials handling are adequate. Thus the potential for campus development pursuant to the 2025 Updated FMP to cause irreversible environmental damage from an accident or upset of hazardous materials, is considered low.

6.4 GROWTH-INDUCING IMPACTS

This section evaluates the potential for growth inducement as a result of implementation of the 2025 Updated FMP. Section 15126.2(d) of the *2013 State CEQA Guidelines* requires that an EIR include a discussion of the potential for a proposed project to foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.

In general terms, a project may foster economic or population growth in a geographic area if it meets any one of the criteria that are identified below.

- The project removes an impediment to growth (e.g., the establishment of an essential public service, the provision of new access to an area, or a change in zoning or general plan designation).
- Economic expansion, population growth, or the construction of additional housing occurs in the surrounding environment in response to the project, either directly or indirectly (e.g., changes in revenue base, employment expansion, etc.).
- Establishment of a precedent-setting action (e.g., an innovation, a change in zoning, or general plan amendment approval).
- Development or encroachment in an isolated or adjacent area of open space (being distinct from an “infill” type of project).

Should a project meet any one of these criteria, it can be considered growth inducing. An evaluation of the 2025 Updated FMP with regard to these growth-inducing criteria is provided below.

The *2013 State CEQA Guidelines* also require that consideration also be given to potential impacts on community service facilities resulting from increases in population. **Chapter 4.0, Environmental Impact Analysis** of this EIR addresses potential impacts on community service facilities (e.g., police, fire, water, wastewater, etc.) resulting from expected increases in student enrollment and faculty/staff employment on the EVC campus. The campus itself does not house any students or employees.

6.4.1 Removal of an Impediment to Growth

Growth in an area may result from the removal of physical impediments or restrictions to growth, as well as the removal of planning impediments resulting from land use plans and policies. In this context, physical growth impediments may include nonexistent or inadequate access to an area or the lack of essential public services (e.g., water service), and planning impediments may include restrictive zoning and/or general plan designations.

The EVC campus is currently accessible from US 101 and surrounding areas via the Capitol Expressway, San Felipe Road, Yerba Buena Road, and Paseo de Arboles. No off-campus roadway extensions would be required to implement the proposed project. Consequently, the project would not induce growth due to the extension of transportation infrastructure.

The EVC campus is currently served by the San José Municipal Water System. Individual 2025 Updated FMP projects would connect to the City's existing water lines. As noted in **Section 4.11, Utilities and Service Systems**, the existing pipelines have sufficient capacity to accommodate the expected increase in water demand. As a result, the project would not induce growth due to the extension of water infrastructure.

The campus is currently served by the City of San José sewer collection system. As noted in **Section 4.11, Utilities and Service Systems**, no extension or increase in the size of off-site City sewer lines would be required to serve the new building space and increased population on the campus. Therefore, the project would not induce growth due to the extension of sewer infrastructure.

As noted above, development impediments and regulatory legislation, such as land use plans and policies, may also restrict or deter localized growth and can be considered an impediment to growth. Approval of this project would not require any amendment(s) to the City's General Plan nor would it result in any requests for rezoning on adjacent properties. Furthermore, the lands surrounding the campus are substantially built out and no growth on those lands would be fostered by the project.

6.4.2 Economic Growth

The proposed project is intended to help the campus accommodate approximately 14,840 students by 2025. As a community college, EVC does not house any residents; therefore, the project would not result in any direct population increase that could lead to economic growth nearby. The increase in students could lead to increased use of local businesses that serve the campus (e.g., restaurants) and lead to indirect economic growth in the campus vicinity. The projected increase in full-time faculty and classified staff to serve the student population could induce people to move into the area, and lead to associated economic growth in the region.

The 2025 Updated FMP could also induce growth by introducing additional short-term employment opportunities during construction of the projects under the 2025 Updated FMP. The temporary employment opportunities provided by construction of individual projects would, however, be unlikely to induce a substantial number of construction workers to move into the area, although some indirect economic growth, such as an increased demand for goods and services, could likely result from construction activities. Therefore, the proposed project could be considered growth inducing based on this criterion. The growth fostered in this manner would be beneficial to the region.

6.4.3 Precedent-Setting Action

The EVC campus is exempt from compliance with local land use designations and would not require an amendment to the General Plan, General Plan Land Use Map, or zoning. The campus is already developed with college facilities. Therefore, the proposed project is not considered growth inducing based on this criterion.

6.4.4 Development of Open Space

The EVC campus and its surrounding area are generally developed. The 2025 Updated FMP would involve development within the existing campus boundaries. Therefore, implementation of the 2025 Updated FMP would not involve the development of open space nor would it induce the development of any lands that are currently open space. The project thus is not considered growth inducing based on this criterion.

6.5 EFFECTS NOT FOUND TO BE SIGNIFICANT

Section 15128 of the *2013 State CEQA Guidelines* requires an EIR to briefly describe any potential environmental effects that were determined not to be significant during the Initial Study and EIR scoping process and were, therefore, not discussed in detail in the EIR. All impacts found less than significant are described in the Initial Study, which is an Appendix to this Draft EIR, or in the sections of the EIR.

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