San José Community College
2025 Updated Facilities Master Plan

Draft Environmental Impact Report
SCH No. 2012082028

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 (hereinafter 2025 Updated FMP or proposed project) for the San José City College (SJCC) campus. 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 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, its 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
- 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 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) 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 BOT 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 SJCC campus to meet expected 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.

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 18, 2013. Written comments on the EIR may be sent to:

San José City College,
2100 Moorpark Avenue
Business Building, B-101
San José, California 95128

Attention: Greg Nelson, Vice President, Administrative Services
Email: greg.nelson@sjcc.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 SJCC 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 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 August 7, 2012, a Notice of Preparation (NOP) was published for the SJCC 2025 Updated FMP EIR. The 30-day comment period ended on September 5, 2012. A copy of the NOP, along with all comments received on the NOP, are included in **Appendix 1.0**.

An EIR scoping meeting was held at SJCC on August 28, 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.sjcc.edu. The Draft EIR and the 2025 Updated FMP are also available for review at the following locations:

San José City College,
2100 Moorpark Avenue
Business Building, B-101
San José, California 95128
Contact: Greg Nelson, Vice President, Administrative Services

Cesar E. Chavez Library, Reference Desk
2100 Moorpark Avenue
San José, California 95128

Rose Garden Branch Library, Reference Desk
1580 Naglee Ave
San José, California 95126

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 August 7, 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
- Greenhouse Gas
- Land Use and Planning
- Noise
- Public Services
- 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 also 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 facilities proposed 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.

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 significance.

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 EIR 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 from implementation of the 2025 Updated Facilities Master Plan (FMP) for the San Jose City College (SJCC) campus. This Executive Summary is intended to provide the decision makers, responsible agencies, and the public with a clear, simple, and concise description of the proposed 2025 Updated FMP and its potential significant environmental impacts.

The *2013 California Environmental Quality Act (CEQA) Guidelines (*Section 15123) require 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 of the proposed project. 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 Jose/Evergreen Community College District (SJECCD) Board of Trustees is the CEQA lead agency for the 2025 Updated FMP.

2.2 PROJECT LOCATION

The SJCC campus is located at 2100 Moorpark Avenue in central San Jose in Santa Clara County. The campus is immediately south of Interstate 280 (I-280) and is bounded by Moorpark Avenue to the north; Rexford Way, Kingman Avenue and Fruitdale Avenue to the south; Laswell Avenue and South Bascom Avenue to the west; and Leigh Avenue to the east. Overall, the campus encompasses about 54.5 acres.

The SJCC campus is located in an urban setting and is surrounded by a variety of land uses. They include commercial uses and Valley Medical Center to the west, single-family and multifamily residential uses to the east and south, and single-family residential uses to the north across I-280. Homes to the north of the campus are in unincorporated Santa Clara County.

2.3 PROJECT DESCRIPTION

The 2025 Updated FMP addresses the facility needs of the SJCC campus to meet expected enrollment through 2025. The current enrollment at SJCC is about 11,780 full-time and part-time students and future enrollment is expected to reach approximately 14,450 students by 2025, an increase of about

2,670 students compared to existing conditions. Because of the number of students who do not attend college on a full-time basis, this projected enrollment level is equivalent to approximately 9,400 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 427,300 square feet. After implementation of the 2025 Updated FMP, the total building space on the campus would be reduced by approximately 73,560 square feet to 353,740 square feet as the SJCC currently has more space than it needs to house the 2025 program of instruction and related support services. See **Section 3.0, Project Description**, for further information about the building program identified in the proposed 2025 Updated FMP.

2.4 PURPOSE AND NEED/OBJECTIVES OF THE PROPOSED ACTION

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

- support the current instructional programs and student services and identify instructional programs and support services which need to be modified to meet the needs of the College's service area population;
- keep pace with, and anticipate the changing needs of the students and the communities served by the College;
- develop partnerships with business and industry within the service area;
- develop alternative strategies for delivering instruction to students;
- develop a plan that would fully incorporate technology into all aspects of the operation of the courses, programs and services of 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;
- emphasize comprehensive planning and how it should be used as a basis for decision making;
- develop a stronger educational program basis to substantiate future facility needs; and
- update the existing campus and provide attractive modern facilities appropriate for the instructional programs and support services offered.

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 August 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
- Greenhouse Gas Emissions
- Land Use and Planning
- Noise
- Public Services
- 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 meetings 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 include the following:

- Traffic impacts in the vicinity of the campus
- Construction and operational noise impacts to adjacent residential neighborhoods
- Compatibility of existing and planned land uses on the campus with nearby residential areas
- Potential impacts related to recreational facilities included in the 2025 Updated FMP

All of these issues are addressed in the environmental impact analysis in **Section 4.0** of this Draft EIR and in the Initial Study that is included in **Appendix 1.0** 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 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 capacity would increase by approximately 2,670 students over the current enrollment level of about 11,780 students, reaching approximately 14,450 students by 2025. Under the Reduced Enrollment Capacity Alternative, enrollment capacity would only increase by approximately 1,335 students over the current enrollment level, to about 13,115 students by 2025. Less building space would be needed to serve the student population under this alternative compared to the proposed project. Under the 2025 Updated FMP a total of approximately 353,736 square feet of building space would be provided to accommodate the projected student population by 2025, which is a decrease of about 73,564 square feet compared to existing conditions. Under the Reduced Enrollment Capacity Alternative, approximately 321,055 square feet[1] of building space would be provided to meet the projected student population by 2025, which is a decrease of about 106,245 square feet compared to existing conditions. Therefore, the overall extent and duration of construction activity under this alternative would be lower under the proposed project. The landscape buffer proposed under the 2025 Updated FMP as well as internal roadway improvements and plazas would still be constructed under this alternative.

1 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 approximately 321,055 square feet based on a student population of about 13,115 under the alternative.

2.7.2 No Project//Facilities Master Plan Update 2011

Under the No Project Alternative, the 2025 Updated FMP would not be implemented. Instead, the campus would implement the Facilities Master Plan Update 2011 (FMP Update 2011), which was adopted in 2010. **Table 5.0-1** lists the facilities planned for construction and demolition under the FMP Update 2011. Existing buildings on the campus total approximately 427,300 square feet. Implementation of the FMP Update 2011 would result in a net reduction of approximately 23,420 square feet of building space on the SJCC campus below existing conditions for a total of about 403,880 square feet of building space on campus. In comparison, implementation of the 2025 Updated FMP would result in a net reduction of about 73,560 square feet of building space on the SJCC campus as approximately 195,560 square feet of existing building space would be demolished under the 2025 Updated FMP compared to about 96,420 square feet of building space under the FMP Update 2011. Overall, the 2025 Updated FMP would result in a total of about 353,740 square feet of building space on campus at buildout. Based on current and future campus facilities, enrollment capacity would be approximately 12,000 students under this alternative, an increase of about 220 students over existing conditions. The landscape buffer as well as internal roadway improvements and plazas proposed under the 2025 Updated FMP would not be constructed under this alternative.

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

2.8 IMPACT SUMMARY

A detailed discussion regarding potential environmental impacts of the proposed project is provided in **Section 4.0 Environmental Impact Analysis.** A summary of the impacts of the proposed project, including those identified in the Initial Study, is provided in **Table 2.0-1, Summary of Impacts and Mitigation Measures**. Also provided in **Table 2.0-1** are mitigation measures, including measures identified in the Initial Study, which 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 the 2025 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 Proposed Project Impacts and Mitigation Measures

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
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 create new sources of substantial light or glare which could adversely affect day or nighttime views in the area.	Potentially significant	**MM AES-2a:** All new exterior lighting for future projects on the SJCC campus shall incorporate downward-directed lighting or cutoff-type lighting in order to minimize light spill and nighttime glare.	Less than significant
		MM AES-2b: Additional landscaping consisting of large trees and ground bushes shall be installed along the southern edge of New Parking Lot A from the Central Pedestrian walk to Mansfield Drive to minimize glare impacts to the residential neighborhood immediately south of New Parking Lot A.	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
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 Bay Area Air Quality Monitoring District 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
Biological Resources			
Impact BIO-1		**Mitigation Measure BIO-1**	
In the event that Cooper's hawk and/or American peregrine falcon were to nest on the campus, implementation the 2025 Updated FMP could result in the direct loss or noise-related disturbance of an active nest of these species.	Potentially significant	**MM BIO-1**: When outdoor construction activities within 100 feet of landscape plantings would commence during the nesting/breeding season of native bird species potentially nesting on the site (typically February through August in the project region), a pre-construction survey for nesting birds shall be conducted by a qualified biologist not more than four weeks before commencement of construction activities. The surveys shall continue on a weekly basis with the last survey being conducted no more than three days before the start of clearance/construction work.	Less than significant
		If active nests are found in areas that could be directly affected or are within 100 feet (300 feet if adjacent to natural vegetation) of construction and would be subject to prolonged construction-related noise, no-disturbance buffer zones of 100 feet (300 feet adjacent to natural areas) shall 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 shall be determined through consultation with the CDFW, 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; and • Sensitivity of individual nesting species and behaviors of the nesting birds.	

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 moderate potential of identifying unrecorded historic-period archaeological resources on or near the SJCC campus. Any inadvertent damage to significant historic-period archaeological resources represents a potentially significant impact.	Potentially significant	**MM CUL-1a**: Prior to ground disturbance, the Campus shall conduct archival research to determine the appropriate locations for archaeological monitoring during removal of asphalt or concrete fill, vegetation, or structures. Following the exposure of the original soils, a field inspection shall be conducted and a report containing "next step" recommendations be provided. Field study may include, but is not limited to, pedestrian survey, hand auger sampling, shovel test units, or geoarchaeological analyses as well as other common methods used to identify the presence of archaeological resources.	Less than significant
		MM CUL-1b: If archaeological resources are encountered during construction, work shall be temporarily halted in the vicinity of the discovered materials and workers shall avoid altering the materials and their context until a qualified professional archaeologist has evaluated the find and provided appropriate recommendations. Project personnel shall not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Cultural Resources (continued)			
Impact CUL-2		**Mitigation Measure CUL-2**	
There is a potential for disturbance of previously unknown human remains during site construction.	Potentially significant	**MM CUL-2**: 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
		If it is determined that the find is of Native American origin, the Campus will comply with the provisions of Public Resources Code Section 5097.98 regarding identification and involvement of the Most Likely Descendant (MLD).	
		If the human remains cannot be protected in place following the Coroner's determination, the Campus shall ensure that the qualified archaeologist and the MLD are provided the opportunity to confer on repatriation and/or archaeological treatment of human remains, and that any appropriate studies, as identified through this consultation, are carried out prior to reinterment. The Campus shall provide results of all such studies to the Native American community, and shall provide an opportunity for Native American involvement in any interpretative reporting. As stipulated by the provisions of the California Native American Graves Protection and Repatriation Act, the Campus shall ensure that human remains and associated artifacts recovered from campus projects on state lands are repatriated to the appropriate local tribal group if requested.	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Greenhouse Gas Emissions			
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.	Less than significant	No mitigation is required.	Less than significant
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.	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**	
Soil or groundwater contamination could be present and, if encountered during construction, could result in the exposure of the public or construction workers to hazardous materials.	Potentially significant	**MM HAZ-1**: 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 postponed to ensure construction will not inhibit remediation activities and will not expose the public or construction workers to hazardous conditions.	Less than significant

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Land Use and Planning			
Impact LU-1		**Mitigation Measure LU-1**	
Implementation of the 2025 Updated FMP would not conflict with applicable land use 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 land uses or with planned uses adjacent to the campus.	Less than significant	No mitigation is required.	Less than significant
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 generate increased local traffic volumes, but the traffic would not cause a substantial permanent increase in noise levels at on- or 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
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 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
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 that 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.	

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Noise (continued)			
		MM NOI-4b: (continued) • 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 a week before 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 the campus to excessive groundborne vibrations, 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
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 not require the construction of new or physically altered law enforcement facilities, which could cause significant environmental impacts.	Less than significant	No mitigation is required.	Less than significant
Transportation and Traffic			
Impact TRANS-1		**Mitigation Measure TRANS-1**	
Implementation of the 2025 Updated FMP would not conflict with City of San José standards for signalized and unsignalized intersections and Santa Clara Valley Transportation Authority (VTA) standards for Congestion Management Program (CMP) intersections under 2025 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
Transportation and Traffic (continued)			
Impact TRANS-2		**Mitigation Measure TRANS-2**	
Implementation of the 2025 Updated FMP would not conflict with City of San José standards for signalized and unsignalized intersections and VTA standards for CMP intersections under existing plus project conditions.	Less than significant	No mitigation is required.	Less than significant
Impact TRANS-3		**Mitigation Measure TRANS-3**	
Implementation of the 2025 Updated FMP would conflict with CMP standards for freeway segments under 2025 plus project conditions.	Potentially significant	No feasible mitigation is available.	Significant and unavoidable
Impact TRANS-4		**Mitigation Measure TRANS-4**	
Implementation of the 2025 Updated FMP would conflict with CMP standards for freeway segments under existing plus project conditions.	Potentially significant	No feasible mitigation is available.	Significant and unavoidable
Impact TRANS-5		**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-6		**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

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Transportation and Traffic (continued)			
Impact TRANS-7		**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
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

Environmental Topic and Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Utilities (continued)			
Impact UTIL-4		**Mitigation Measure UTIL-4**	
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-5		**Mitigation Measure UTIL-5**	
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	Slightly greater (still less than significant)
Air Quality- Construction Emissions	Less than significant	Reduced Impact	Slightly greater (still less than significant impact)
Air Quality- Operational Emissions	Less than significant	Reduced Impact	Substantially reduced Impact
Greenhouse Gas Emissions - Construction	Less than significant	Reduced Impact	Slightly greater (still less than significant impact)
Greenhouse Gas Emissions – Operational	Less than significant	Reduced Impact	Substantially reduced Impact
Land Use and Planning	Less than significant	Similar	Similar
Noise – Operational	Less than significant	Reduced Impact	Reduced Impact
Noise – Construction	Significant (Significant and unavoidable)	Similar	Similar
Public Services - Fire Protection	Less than significant	Reduced Impact	Substantially reduced Impact
Public Services – Police	Less than significant	Reduced Impact	Substantially reduced Impact
Transportation and Traffic	Significant (Significant and unavoidable)	Reduced Impact (still significant and unavoidable)	Substantially reduced Impact (still significant and unavoidable)
Utilities – Water	Less than significant	Reduced Impact	Substantially reduced Impact
Utilities – Wastewater	Less than significant	Reduced Impact	Substantially reduced Impact
Utilities - Solid Waste	Less than significant	Reduced Impact	Substantially reduced Impact
Utilities – Electricity and Natural Gas	Less than significant	Reduced Impact	Slightly greater (still less than significant)

3.0 PROJECT DESCRIPTION

3.1 INTRODUCTION

This chapter of the EIR presents details of the 2025 Updated Facilities Master Plan (FMP) for San José City College (SJCC) in terms of the need for the project, its objectives, and the project's various components. The San José Evergreen Community College District (SJECCD) proposes to implement the 2025 Updated FMP to meet the facilities requirements contained in the 2025 Educational Master Plan (EMP) for the SJCC campus.

3.2 PROJECT LOCATION

The SJCC campus is located at 2100 Moorpark Avenue in central San José in Santa Clara County. The location of the campus within Santa Clara County and the City of San José is shown in **Figure 3.0-1, Regional Location.** The campus is immediately south of Interstate 280 (I-280) and is bounded by Moorpark Avenue to the north; Rexford Way, Kingman Avenue, and Fruitdale Avenue to the south; Laswell Avenue and South Bascom Avenue to the west; and Leigh Avenue to the east. Overall the campus encompasses about 54.5 acres.

3.3 SURROUNDING LAND USES

The SJCC campus is located in an urban setting and is surrounded by a variety of land uses. They include commercial uses and Valley Medical Center to the west, single-family and multifamily residential uses to the east and south, and single-family residential uses to the north across I-280. Homes to the north of the campus are in unincorporated Santa Clara County. **Figure 3.0-2, Surrounding Land Uses,** depicts the location of these land uses in relation to the SJCC campus.

3.4 ENVIRONMENTAL SETTING

3.4.1 Existing Site Development

Figure 3.0-3, San José City College Campus, presents a map of the existing SJCC campus. The campus was established at its current site in 1953. The initial buildings were constructed in the 1950s and construction has continued on the campus to the present day. **Figure 3.0-4, Campus Development History,** shows the construction date by decade of the existing buildings. Existing buildings are concentrated mainly in the central, western, and northern portions of the campus. Overall, existing buildings on the campus total approximately 427,300 square feet. Existing sports facilities are located mainly in the central and eastern central portions of the campus and include the softball field,

football/track field, practice field, soccer field, tennis courts, and pool. The current enrollment at SJCC is about 11,780 students (Head Count); the College does not house students but is used extensively in the evenings.

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 currently provided from Moorpark Avenue, Laswell Avenue, Leigh Avenue, and Kingman Avenue. The campus access points on Leland Avenue and Leigh Avenue are restricted to right-in/right-out turning movements.

There are currently 2,089 parking spaces on the campus. Existing parking on the campus along with the number of parking spaces for each parking facility are illustrated in **Figure 3.0-6, Existing Parking**. Surface parking lots are located on the perimeter of the campus. A parking structure is located in the northeasterly portion of the campus.

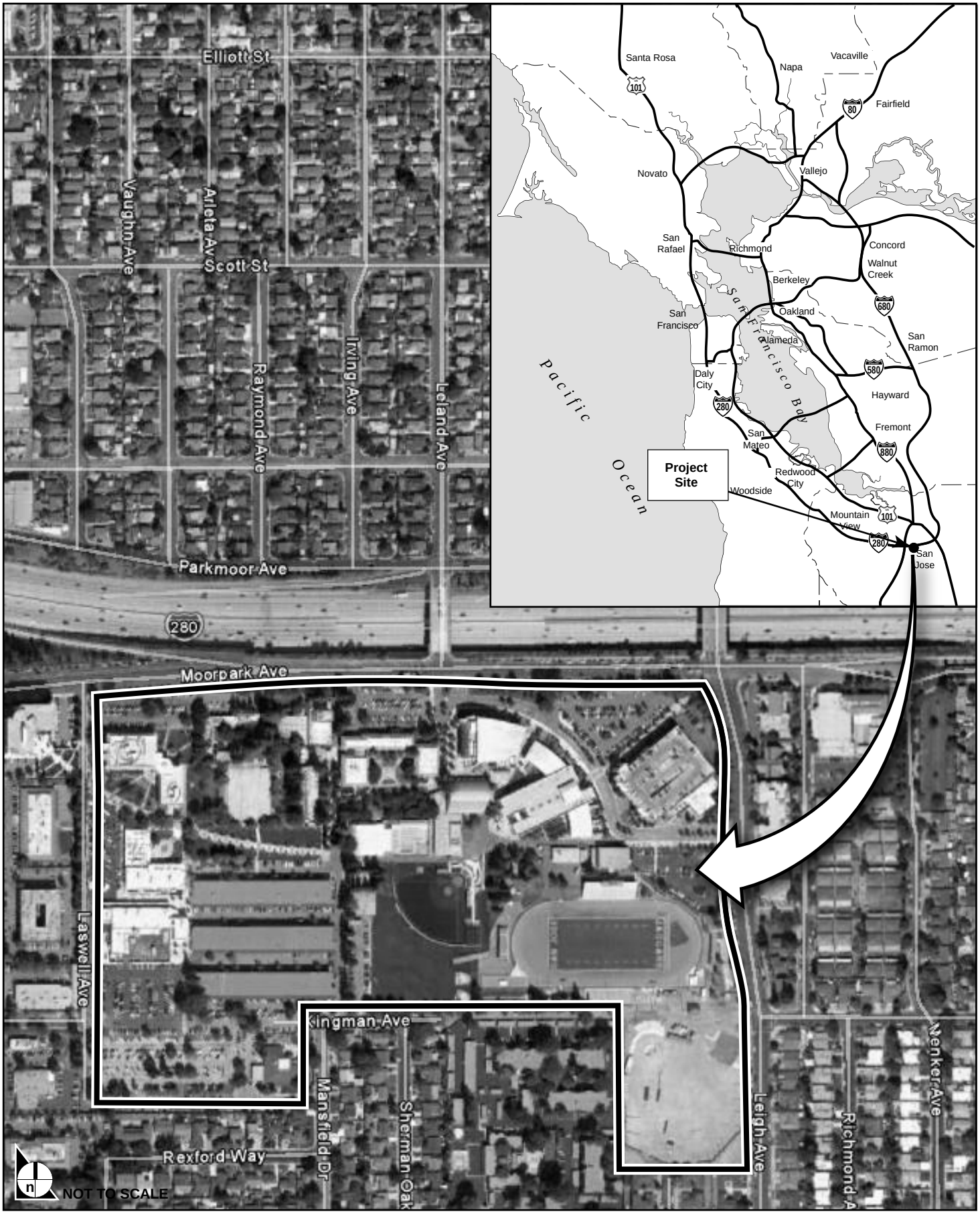
Existing emergency access routes on the campus are illustrated in **Figure 3.0-7, Existing Emergency Access**. Existing pedestrian circulation patterns and areas of student gathering on the campus are illustrated in **Figure 3.0-8, Existing Pedestrian Circulation**.

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.

3.4.4 Campus Landscaping

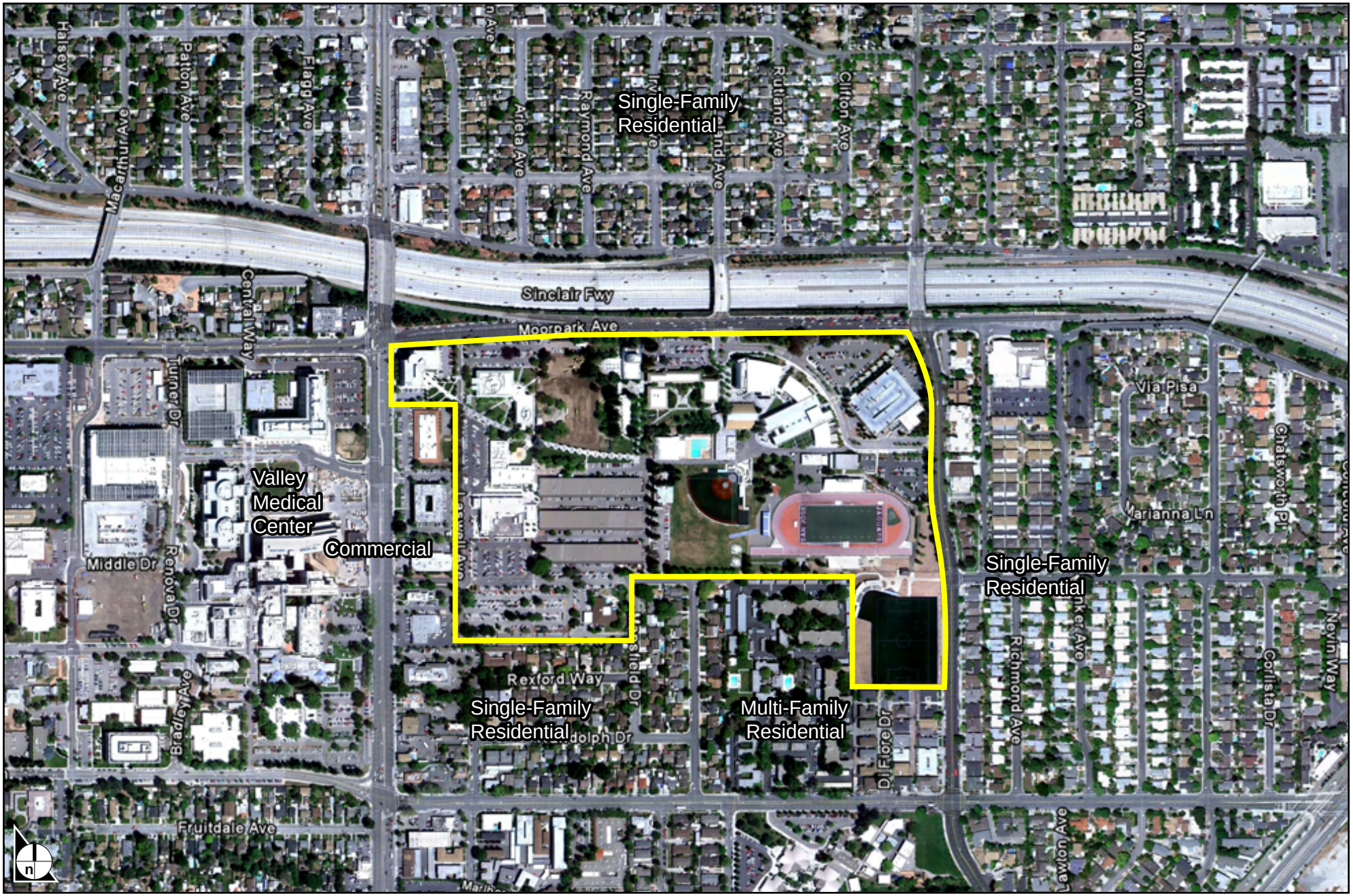
As indicated in **Figure 3.0-10, Existing Campus Landscaping,** vegetation on the campus consists of small landscaped areas outside of the buildings, turf grass covering the sports fields, and other landscaping throughout the campus. Trees are located throughout the campus, including areas along Kingman Avenue, at the corner of Moorpark Avenue and Leigh Avenue, bordering the campus parking lots, along pedestrian paths, and near a number of campus buildings. The most common tree species on the campus include coast redwood, sweetgum, silver dollar, Chinese pistache, Canary Island pine, London plane, coast live oak, cork oak, mayten, and southern magnolia.



SOURCE: Impact Sciences, Inc. – May 2011

FIGURE **3.0-1**

Regional Location



SOURCE: Google Earth – August 2011

FIGURE **3.0-2**

Surrounding Land Uses

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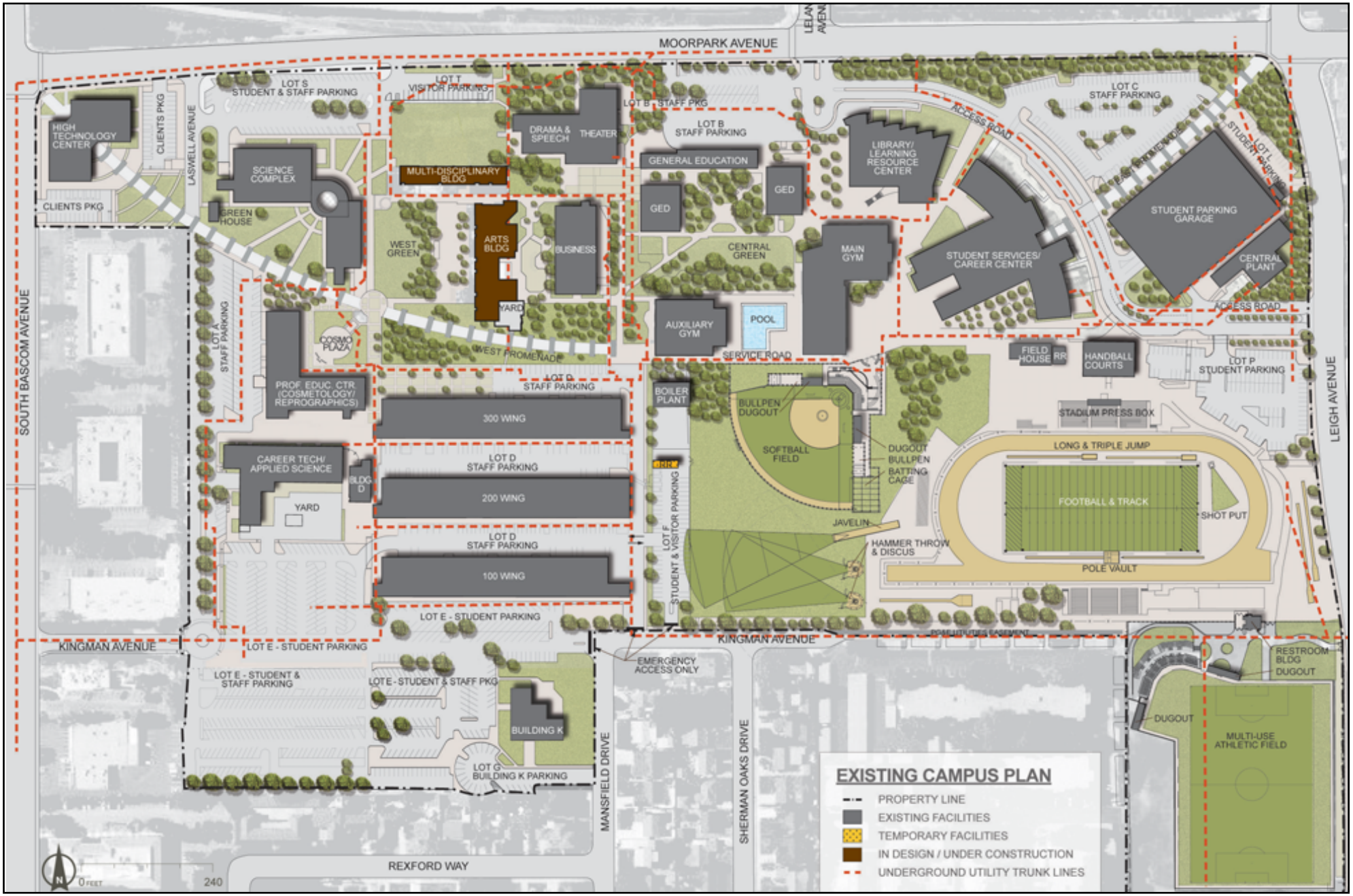

SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-3**

San Jose City College Campus

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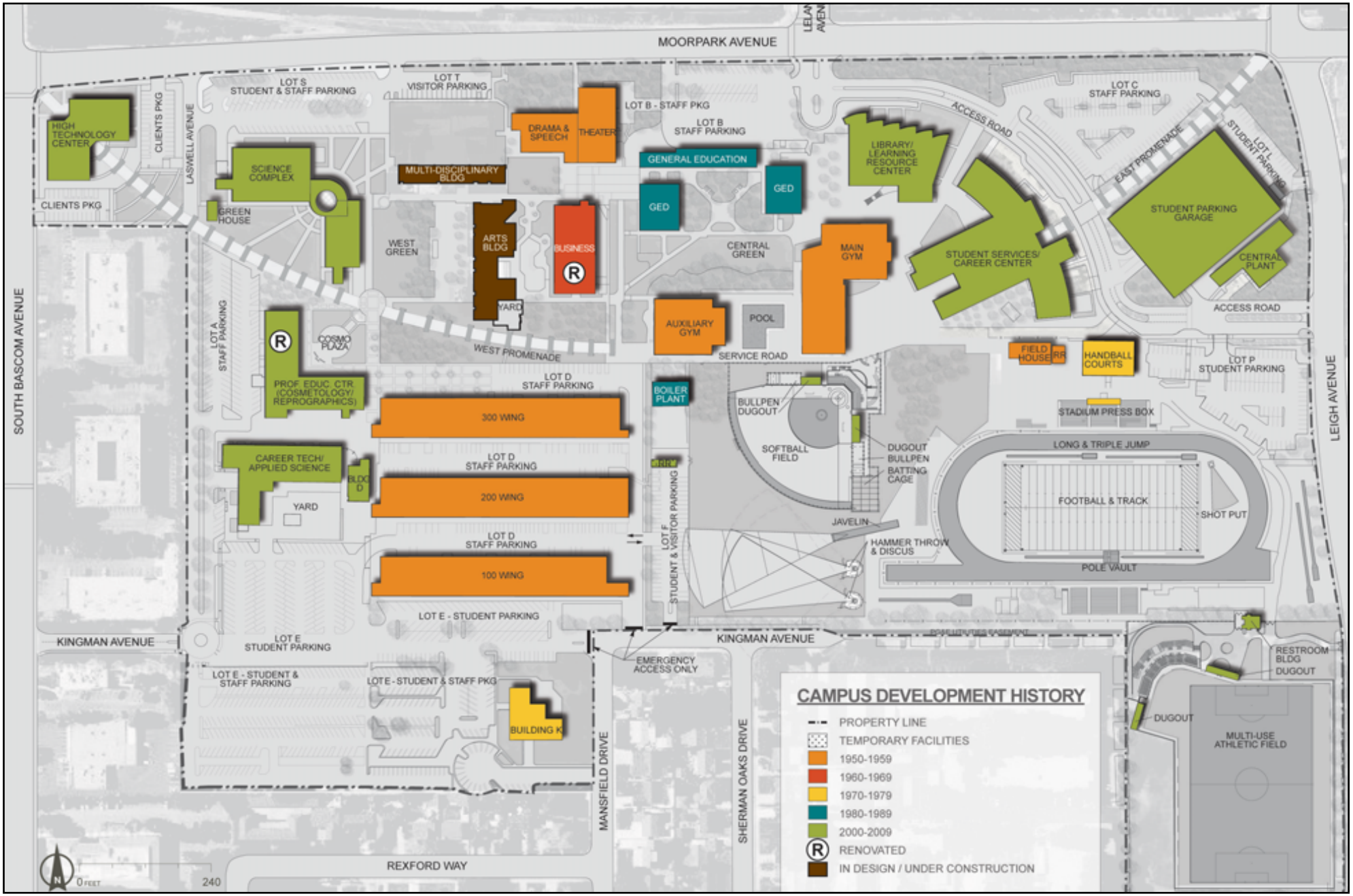
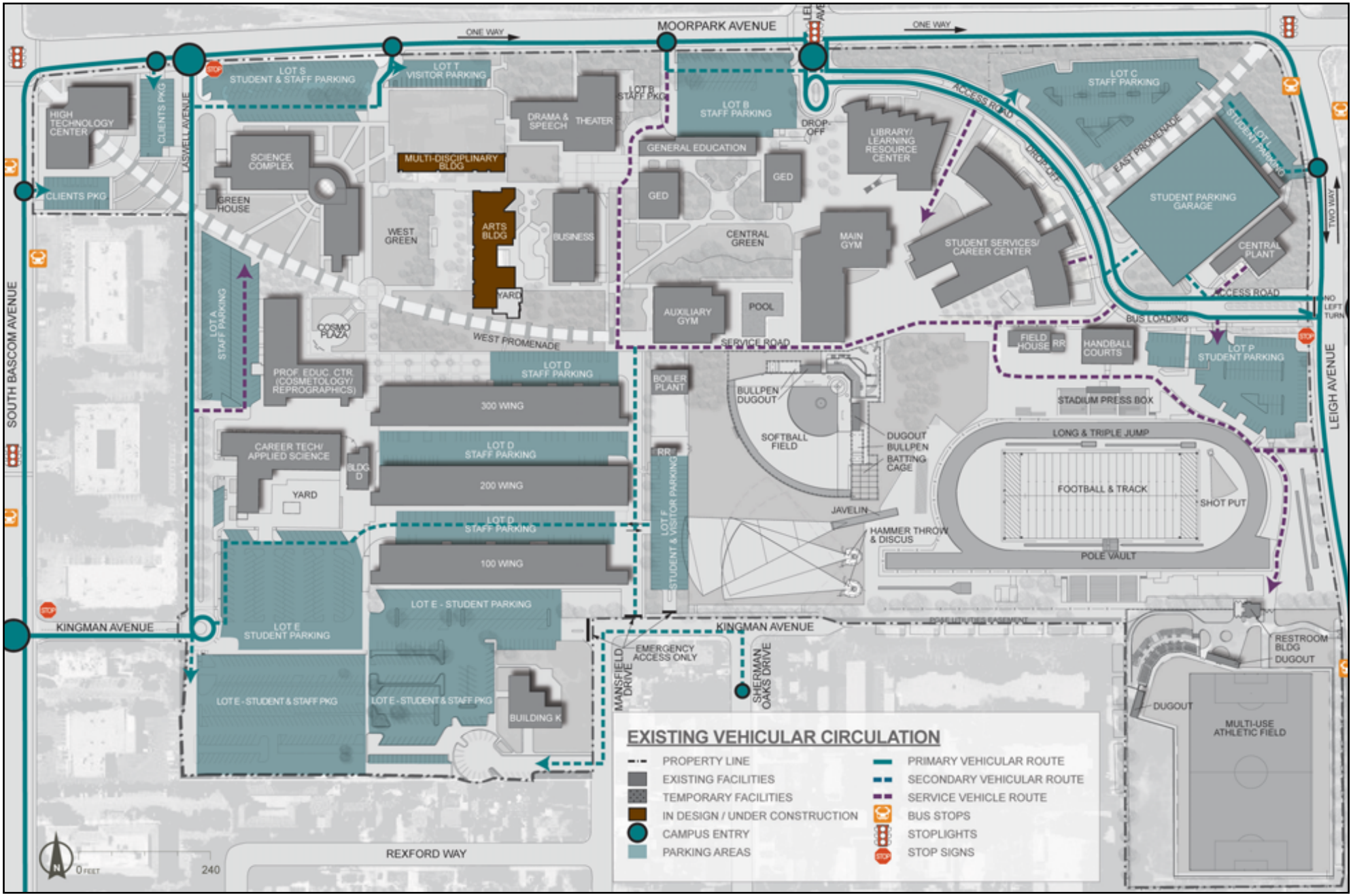


SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-4**

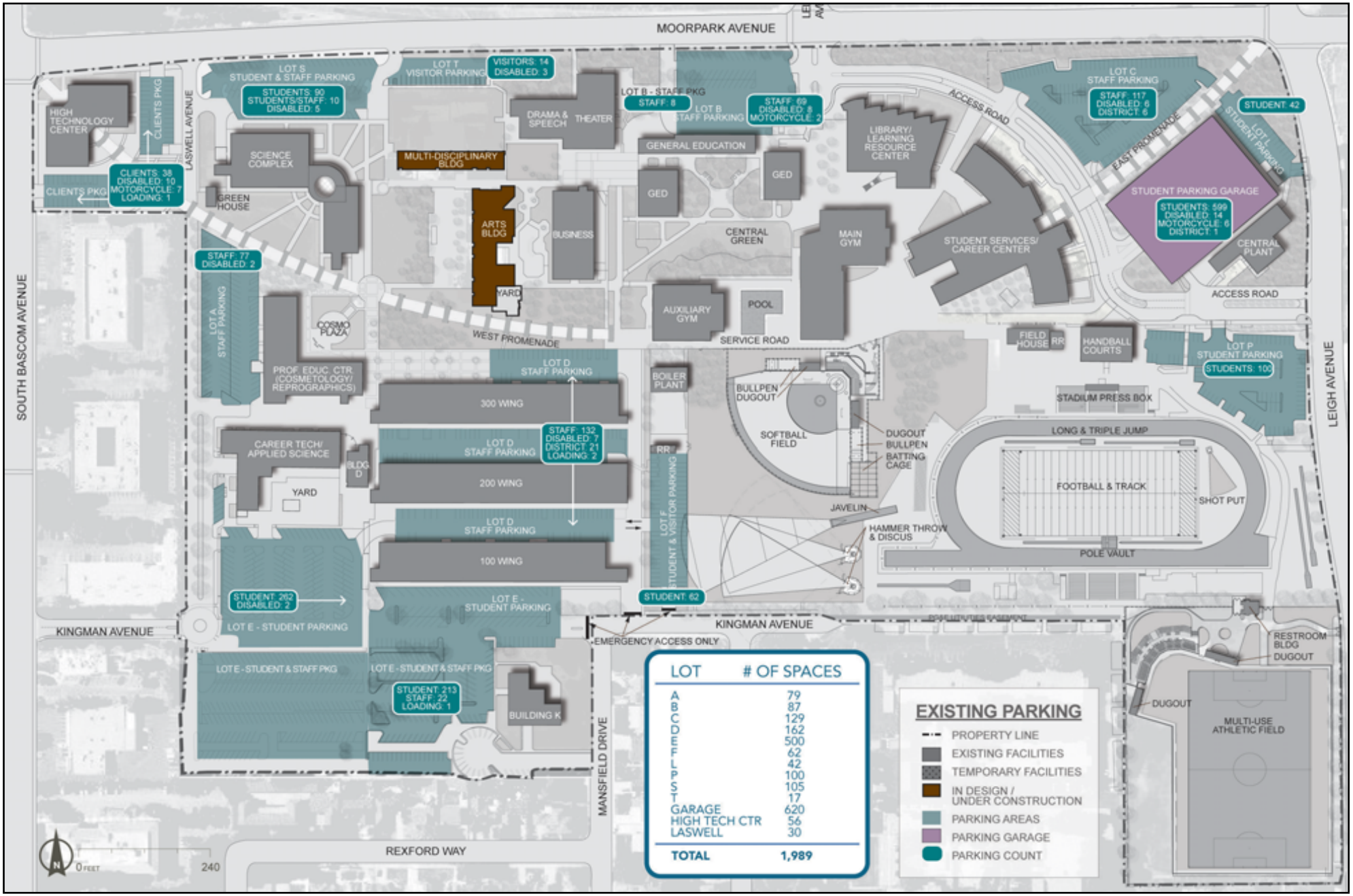
Campus Development History



SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-5**

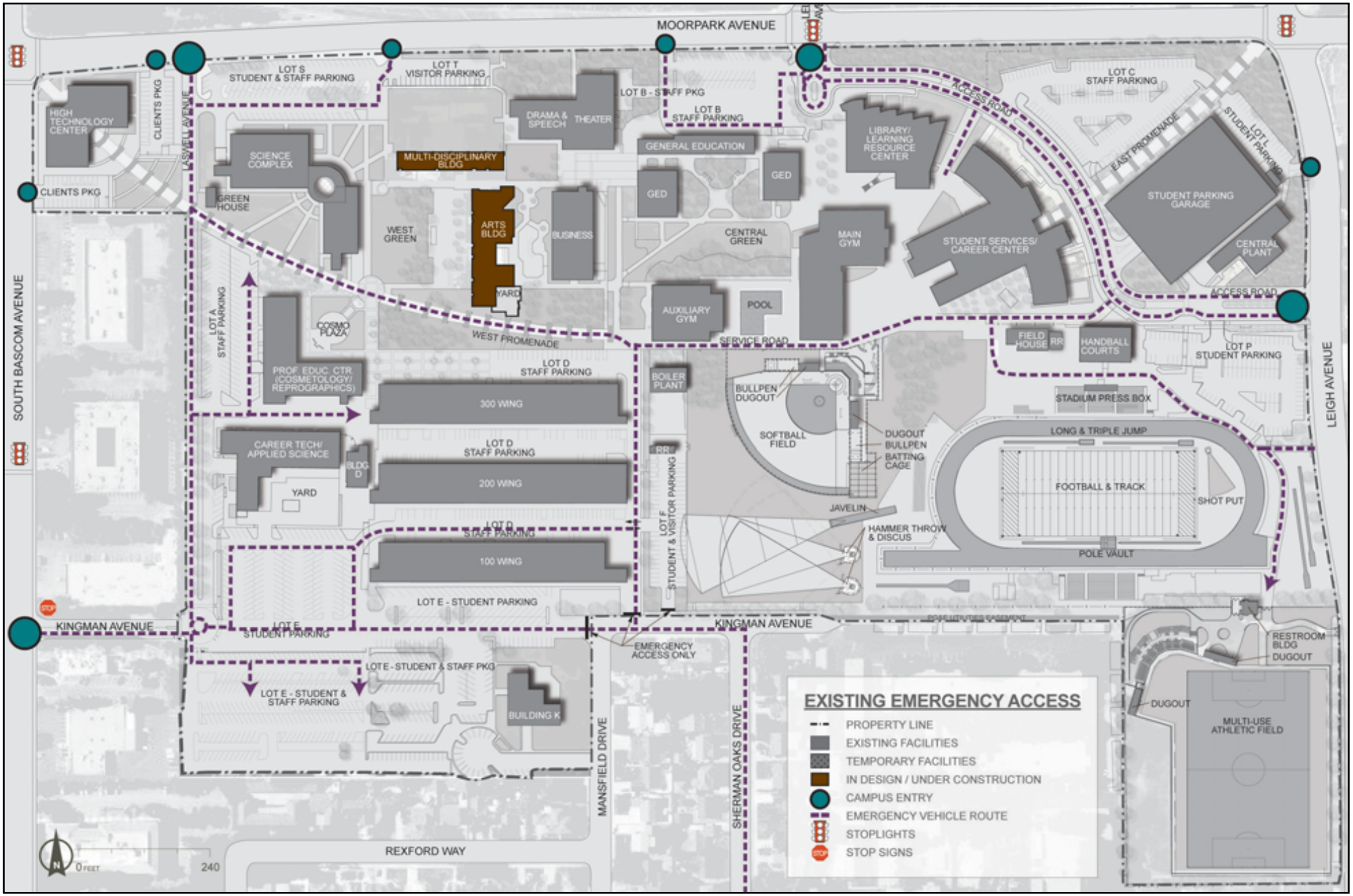
Existing Vehicular Circulation



SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-6**

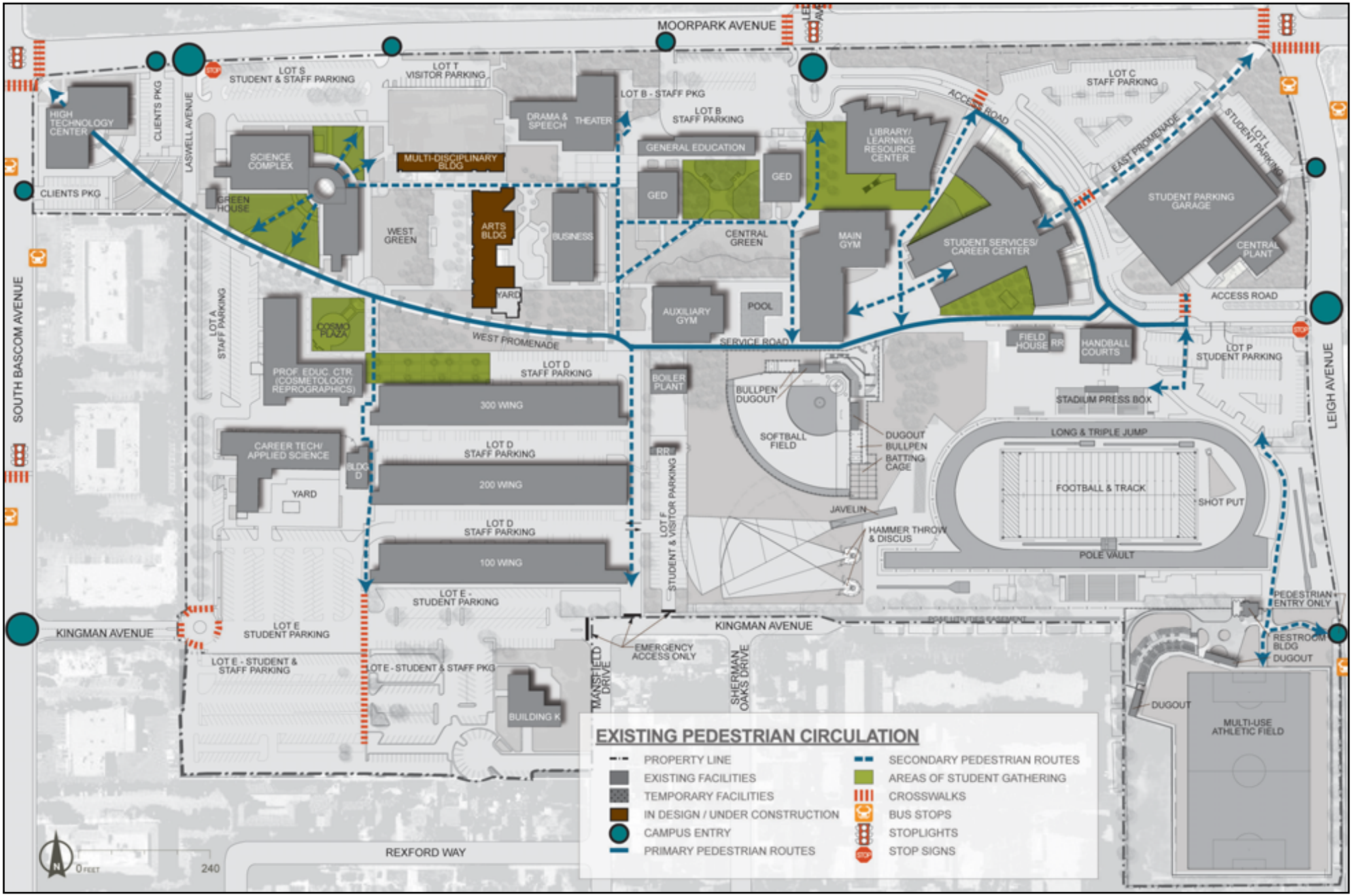
Existing Parking



SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-7**

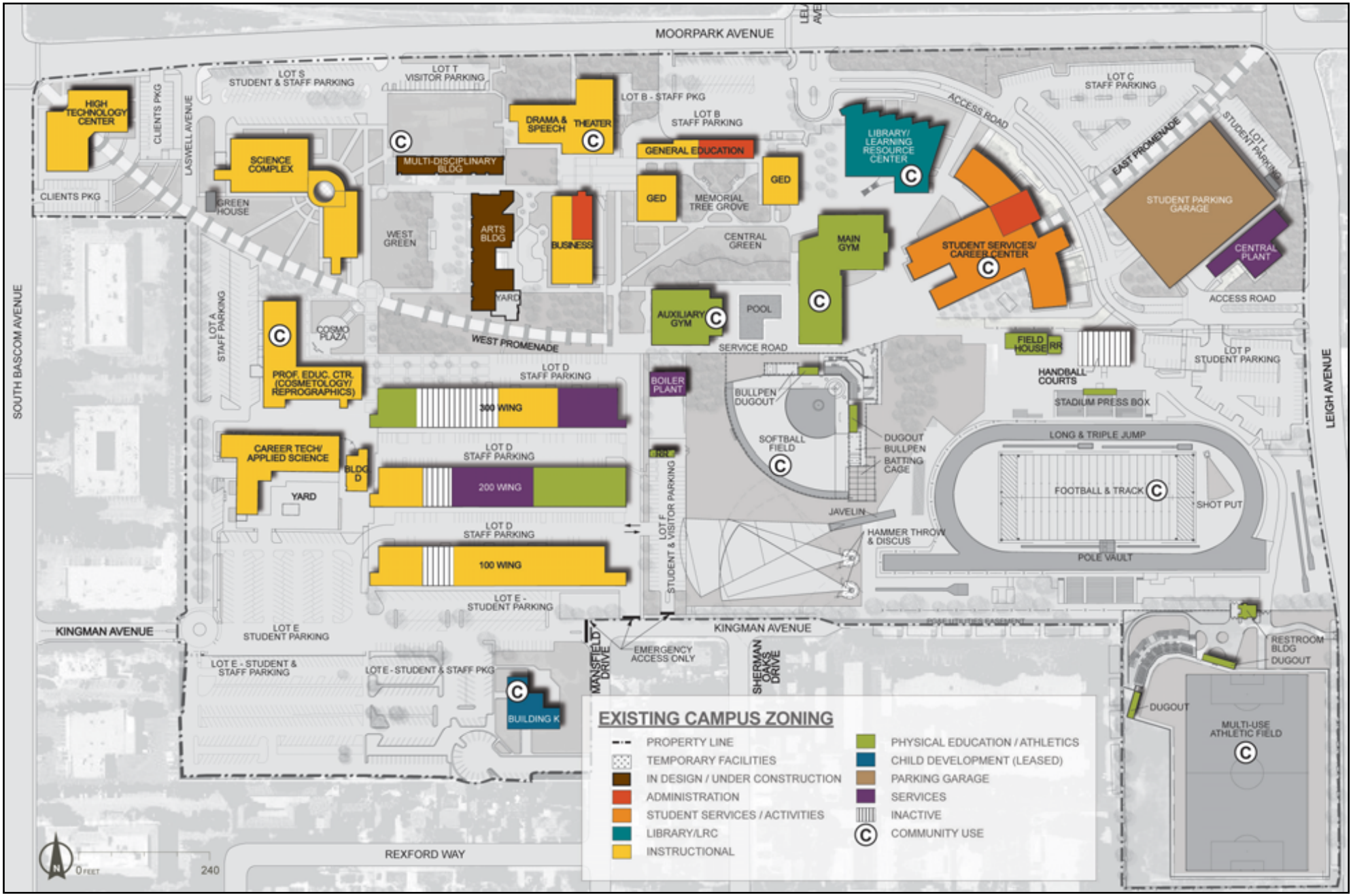
Existing Emergency Access



SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-8**

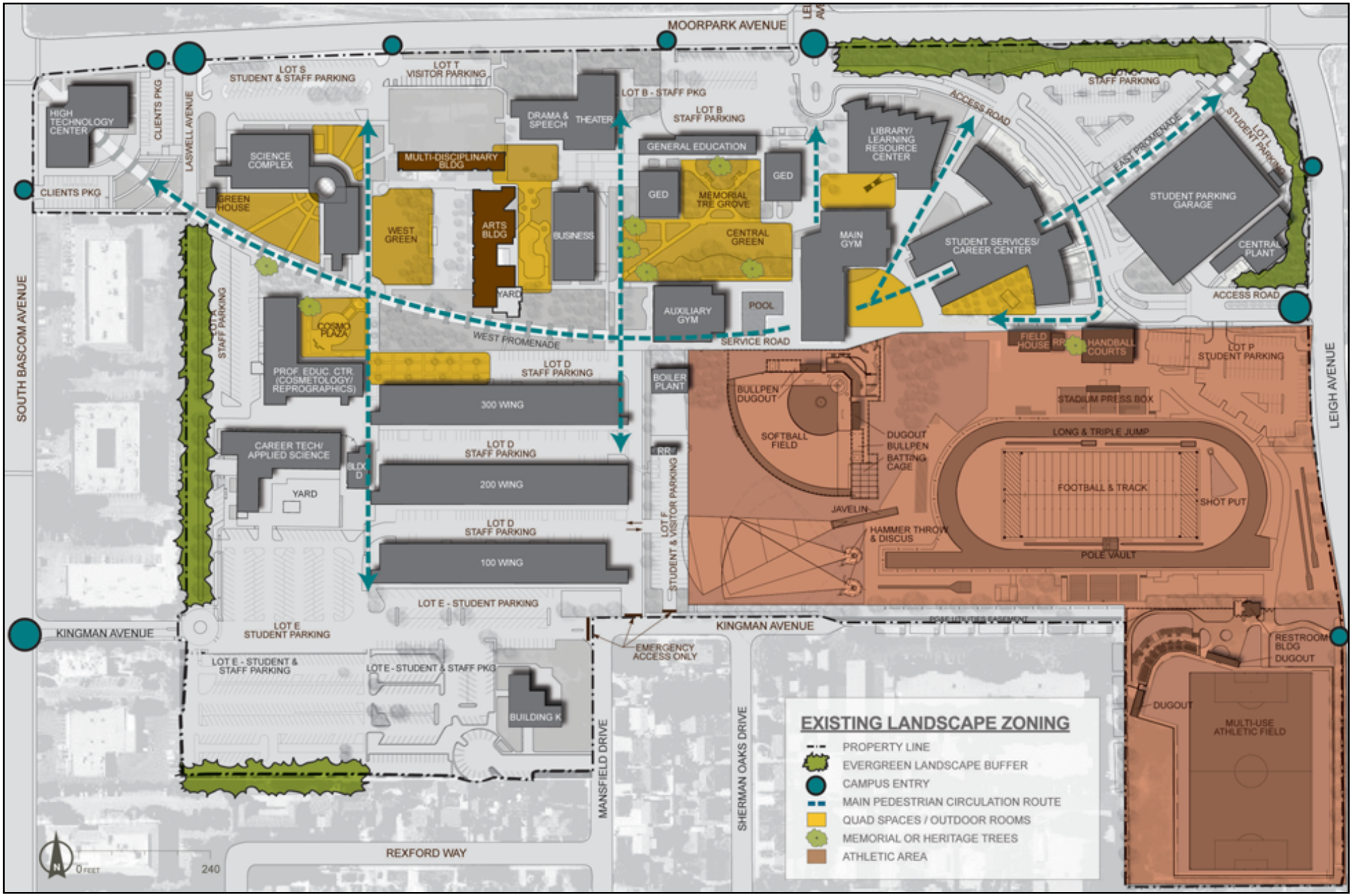
Existing Pedestrian Circulation



SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-9**

Campus Functional Zones



SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-10**

Existing Campus Landscaping

3.5 PROJECT NEED

The 2025 Updated FMP translates the program space needs established in the SJCC 2025 EMP into physical facilities on the campus. According to the 2025 EMP for the SJCC campus, total enrollment on the campus is expected to reach approximately 14,450 students by 2025, which equates to 9,400 Full Time Equivalent (FTE) students. Based on these projections, approximately 353,500 square feet of building space is needed on the campus to accommodate the students and the projected 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 the SJCC currently has more space than it needs to house the 2025 program of instruction and related support services. However, SJCC does show modest space needs in a few categories, including but not limited to, laboratory space, library space, and office space. These needs will be best met through the remodel and/or replacement of existing space on the campus.

3.6 PROJECT OBJECTIVES

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

- Support the current instructional programs and student services and identify instructional programs and support services which need to be modified to meet the needs of the College's service area population.
- Keep pace with, and anticipate the changing needs of the students and the communities served by the College.
- Develop partnerships with business and industry within the service area.
- Develop alternative strategies for delivering instruction to students.
- Develop a plan that would fully incorporate technology into all aspects of the operation of the courses, programs, and services of 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.

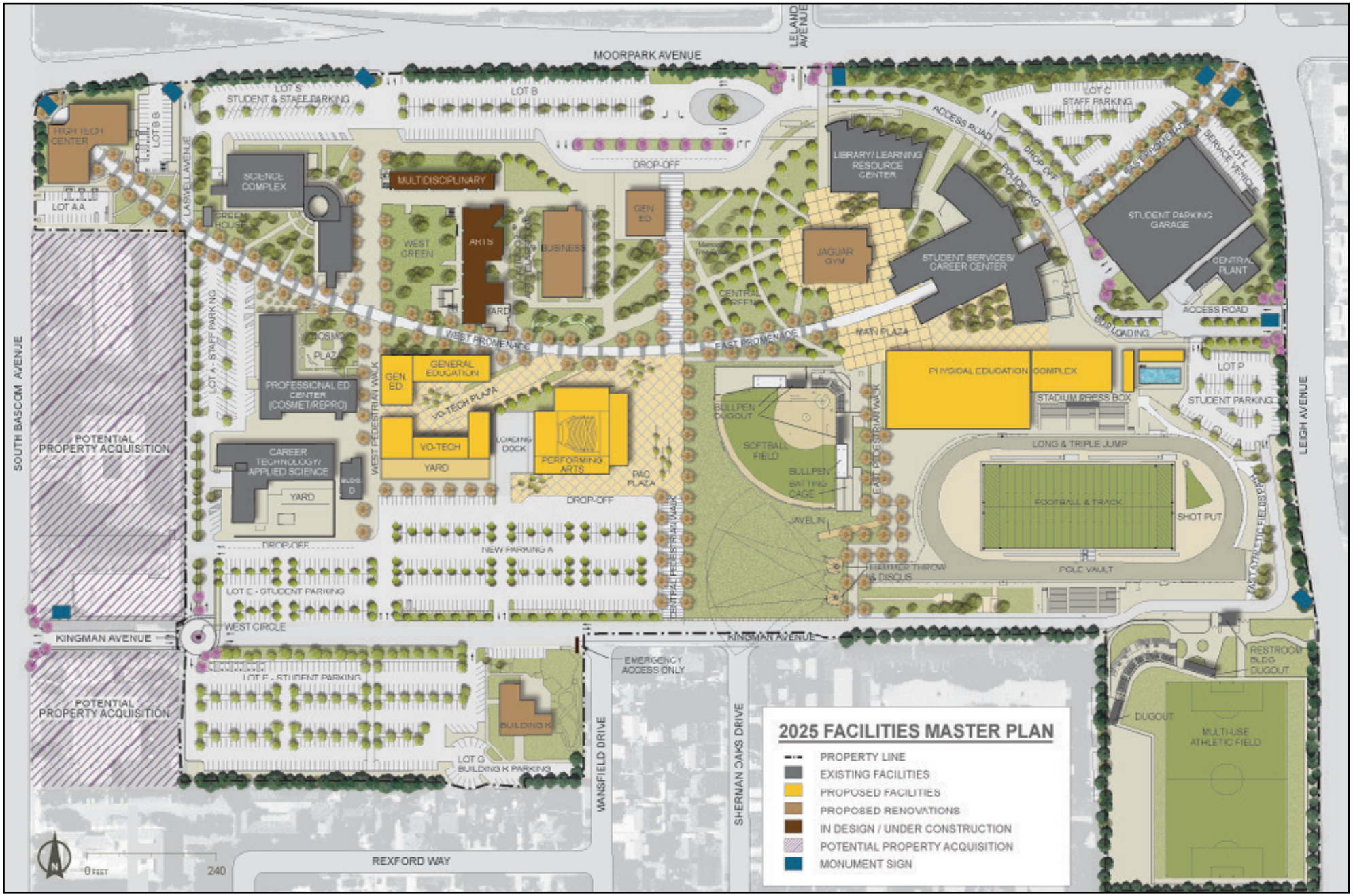
- Emphasize comprehensive planning and how it should be used as a basis for decision making.
- Develop a stronger educational program basis to substantiate future facility needs.
- Update the existing campus and provide modern, attractive facilities appropriate for the instructional programs and support services offered.

3.7 PROJECT CHARACTERISTICS

The 2025 Updated FMP for the SJCC campus is depicted in **Figure 3.0-11, 2025 Updated Facilities Master Plan**. The 2025 Updated FMP involves the reorganization of campus facilities and the reconfiguration and campus access and circulation. The recommendations contained in the 2025 Updated FMP address the current and projected needs of the campus through 2025. Key elements of the 2025 Updated FMP include:

- a sweeping curved Promenade that traverses all the way across the campus;
- the consolidation of all athletic and physical education spaces into a sports/wellness planning zone;
- attention to major landscaping features that will enhance the beauty of the educational environment;
- the creation of major spaces dedicated to outdoor learning and campus cultural events; and
- the improvement of parking and traffic conditions on, and adjacent to, the campus.

Table 3.0-1, New Construction and Demolition/Removal under the 2025 Updated Facilities Master Plan, shows the amount of demolition/removal and new construction that would occur under the 2025 Updated FMP. Overall, compared to existing conditions, the total building space on the campus would be reduced by approximately 73,560 square feet to 353,740 square feet.



SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-11**

2025 Updated Facilities Master Plan

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

Facility	New Construction	Demolition/ Removal	Net Total
Physical Education Complex	60,000	--	
Vocational Technology Building	17,000	--	
Performing Arts Center	30,000	--	
General Education Building	15,000	--	
Field House	--	3,100	
Handball Courts	--	4,800	
100 Wing	--	31,603	
200 Wing	--	32,643	
300 Wing	--	32,172	
Locker Rooms	--	14,707	
Auxiliary Gym	--	12,561	
Pool	--	6,000	
Boiler Plant	--	2,800	
Portable Restroom Building	--	480	
Drama/Theater	--	30,403	
General Education Building (partial)	--	24,295	
Total	**122,000**	**195,564**	**(73,564)**

3.7.1 Proposed Changes to Campus Facilities

Facility recommendations contained in the 2025 Updated FMP include demolition/removal of existing buildings 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 aged facilities with new facilities. Facilities identified by the 2025 Updated FMP for demolition/removal are listed below:

- Drama/Theater
- 100 Wing
- 200 Wing
- 300 Wing
- Boiler Plant
- Pool
- General Education Building (partial)
- Auxiliary Gym
- Field House
- Handball Courts
- Portable Restroom Building
- Locker Rooms

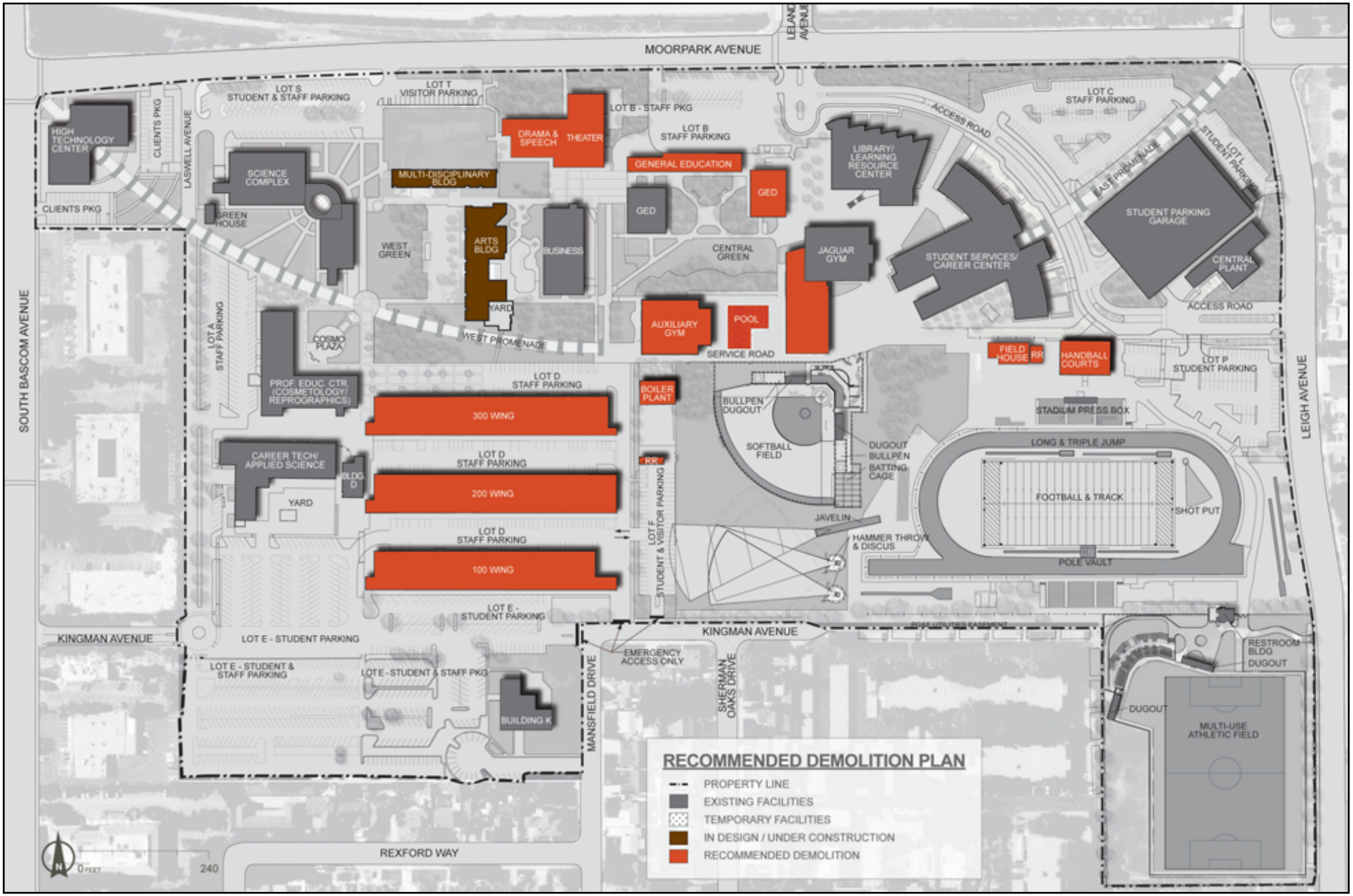
The location of each of these facilities is shown in **Figure 3.0-12, Recommended Demolition/Removal Plan**.

Construction of New Facilities

Descriptions of the new construction projects planned or recommended in the 2025 Updated FMP on the SJCC campus are provided 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.

Physical Education Complex

The proposed Physical Education (PE) Complex would support a number of athletic and physical education needs at SJCC, including disabled and adaptive PE program needs. The PE Complex would include three primary elements – a main gymnasium, a fitness center, and an aquatics facility. The complex replaces building space that would be removed with the demolition of the Locker Rooms, Auxiliary Gym, Field House, Handball Courts, and Swimming Pool. Preliminary plans include locker rooms, team rooms, athletic weight room, educational spaces, faculty offices, cardio and weight rooms for fitness, concessions, and a desired 25-meter by 10- to 12-lane swimming pool.



SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-12**

Recommended Demolition/Removal Plan

Vocational Technology Building

The proposed Vocational Technology Building and yard will replace the existing 100, 200, and 300 Wing buildings, consolidate all the Vocational Technology programs together, and provide instructional space. This building will include, but is not limited to, the Applied Science & Technology Division which includes the programs for Air Conditioning/Refrigeration Technology, Construction Technology, Electrician Apprenticeship, Facilities Maintenance, Laser Technology, Machine Technology, Solar, and Transit.

Performing Arts Center

The proposed Performing Arts Center will replace the existing Theater, Drama & Speech Buildings with a new facility in a central location on the campus. The new facility will provide instructional space to support program needs. A new theater will include the support spaces required to support a variety of performances and community activities. The proposed location will be accessed from the new drop-off along Moorpark Avenue and will also be linked to the newly developed main campus quad. The facility will include a new Performing Arts Plaza that can be used for receptions before and after events.

General Education Building

The proposed General Education Building will replace the portions of the existing General Education Building that are recommended for removal as part of the 2025 Updated FMP. The new facility will provide instructional space to support the program needs. The proposed location for this new building will improve access to interdisciplinary instructional spaces along the campus promenade and adjacent to other instructional buildings on the west side of the campus. The proposed placement of the building would also help define the newly developed Vo Tech Plaza and outdoor activity and gathering spaces for the campus community.

Renovation of Existing Facilities

The 2025 Updated FMP recommends two types of renovations – change of use and renovation of existing buildings. A description of renovation projects planned on the SJCC campus is provided below. The order of the projects does not reflect priority order or a recommended sequence of development. The 2025 Updated FMP recommends that these renovations be addressed on an as-needed basis and aligned with ongoing deferred maintenance projects.

Renovation – Change of Use

The 2025 Updated FMP recommends that the vacated floors of the existing High Technology Center be re-purposed to support the instructional program needs identified in the 2025 EMP. In addition, Building K is recommended to be renovated to support the Maintenance and Operations function of the college.

Renovation – Existing Programs

SJCC has some buildings on the campus that date to the 1950s and 1960s. Many of these are in need of extensive renovation in order to support the programs that are housed there. The 2025 Updated FMP identifies one of the buildings in the General Education Building Complex and the Business Building as facilities in need of renovation. In addition, the Jaguar Gymnasium (currently Main Gym) has been identified as an important building to be preserved.

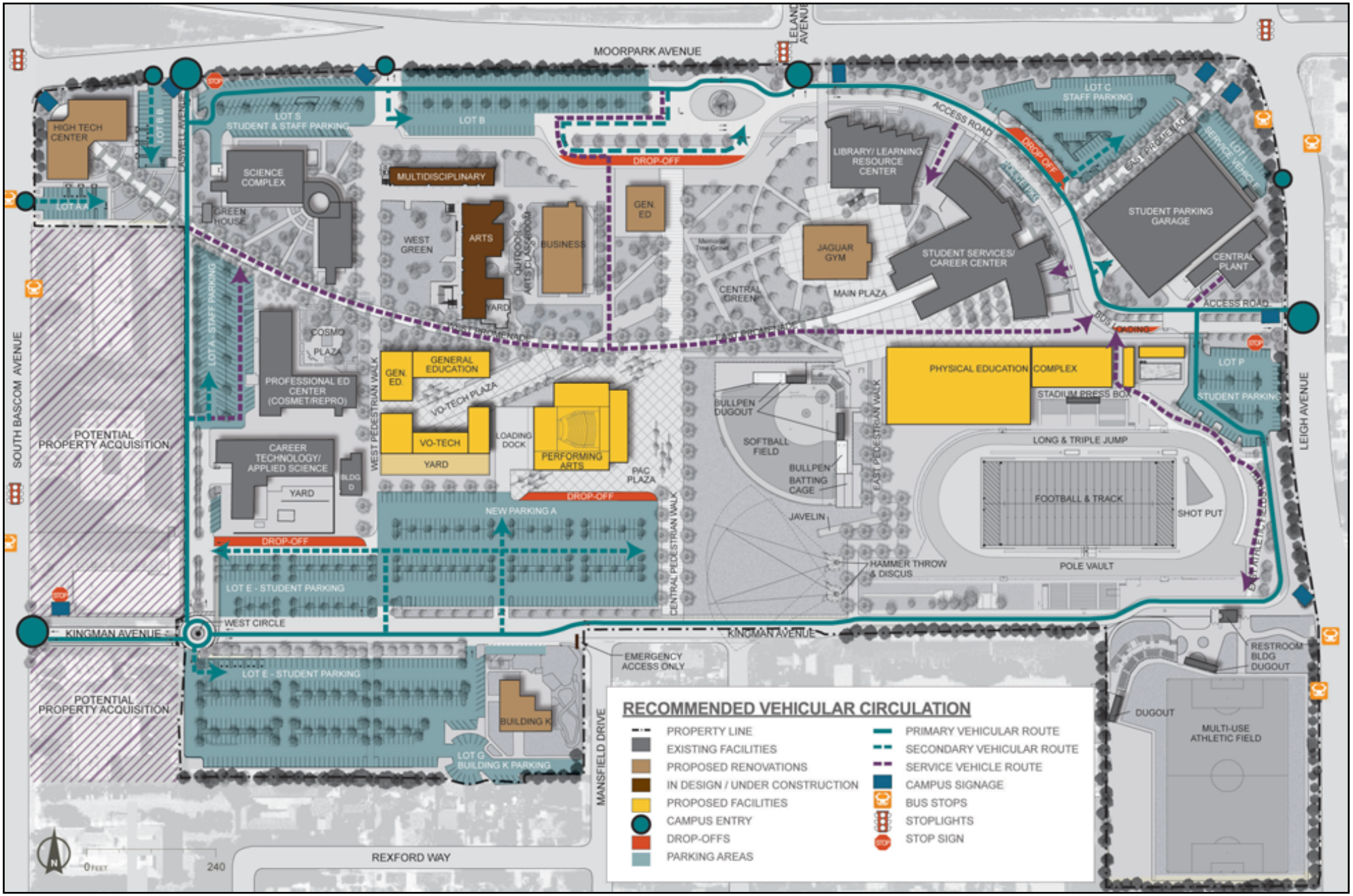
3.7.2 Proposed Changes to the Other Site Improvements

In addition to the recommendations for facilities, the 2025 Updated FMP includes a number of specific site improvement projects, consisting mainly of circulation, landscaping and open space improvements to unify the mix of different building styles on campus. The site improvements identified in the 2025 Updated FMP consists of a recommended vehicular circulation plan **(Figure 3.0-13, Recommended Vehicular Circulation Plan)**; a recommended pedestrian circulation plan (**Figure 3.0-14, Recommended Pedestrian Circulation Plan)**; and recommended 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

Moorpark Avenue Entry & Drop-Off

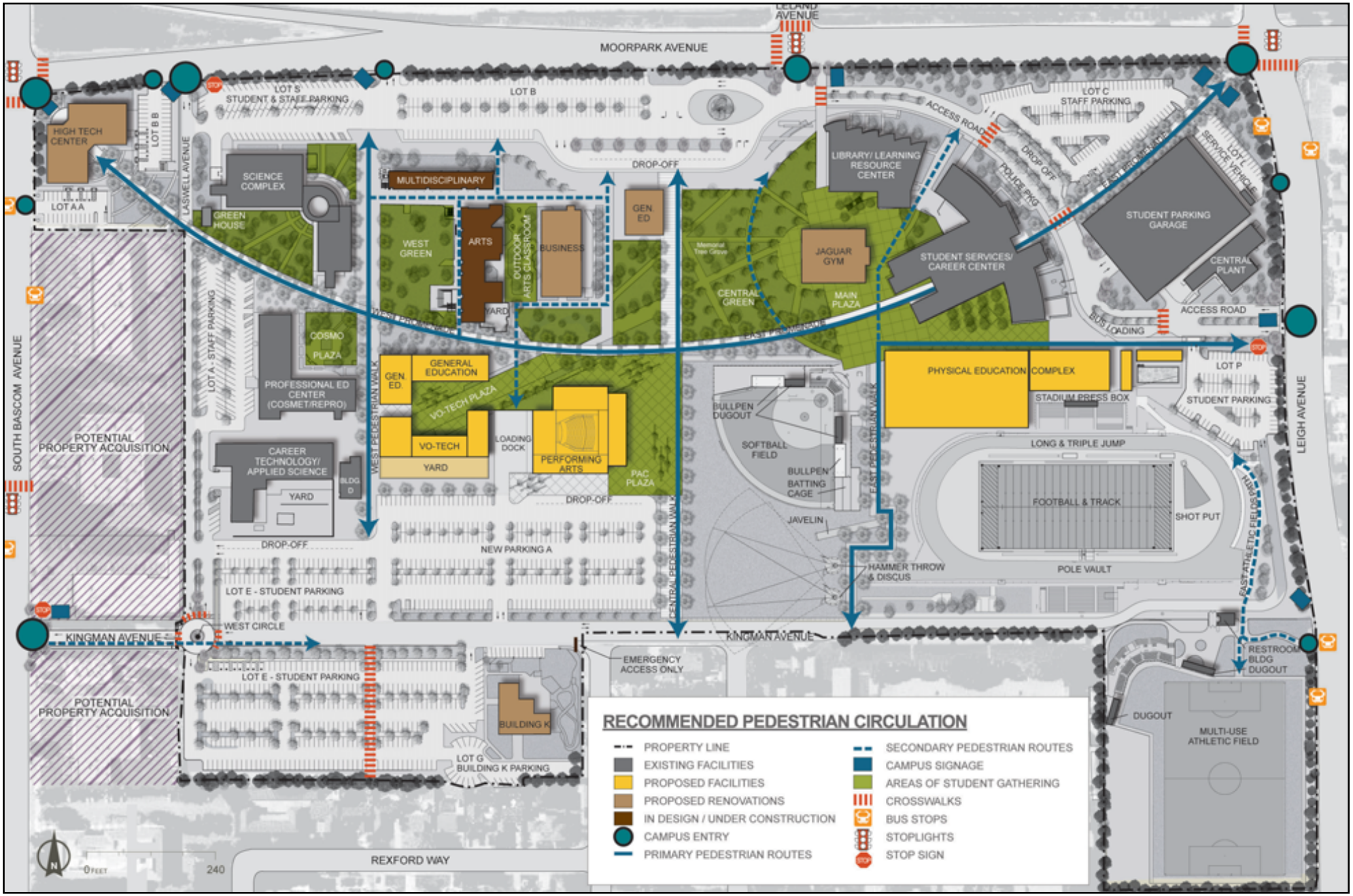
A widened and more prominent entry and drop-off is proposed to improve circulation and access to the campus from Moorpark Avenue. The project includes the reconfiguration of Parking Lot B to include a widened entry from Moorpark Avenue and a drop-off in front of the General Education Building. In addition, the project includes the construction of a new road connecting Parking Lot S to Parking Lot B. This will create an internal circulation loop on the north side of the campus and eliminate the need to exit the campus property to access the west side of the campus.



SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-13**

Recommended Vehicular Circulation Plan



SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-14**

Recommended Pedestrian Circulation Plan

SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **3.0-15**

Recommended Landscape Improvements

Internal Road Connections

The new internal road connection between Parking Lot S and Parking Lot B will provide a much-needed on-campus vehicular drive that facilitates movement from each side of the campus without exiting to Moorpark Avenue. The connection will allow campus visitors to circulate through the campus and access all parking areas. This road is also intended to limit the congestion surrounding the campus, particularly in adjacent neighborhoods.

Student Services Center Drop-Off

The existing drop-off in front of the Student Services Center is currently used by the Campus Police for emergency vehicles. The 2025 Updated FMP recommends improving this area to provide additional parking. In addition, the 2025 Updated FMP recommends that a drop-off be created on the opposite side of the street to accommodate those entering the access road from Leigh Avenue.

Surface Parking Lots

The 2025 Updated FMP recommends a number of reconfigured parking lots. Parking improvements may include sustainable measures such as the use of permeable paving, tree-covered or photovoltaic 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 and native planting. Other design 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 proposed for such improvements in the 2025 Updated FMP include Lot B, Lot E, Lot S, Lot C, and Lot P. Additional parking is proposed in the new Parking Lot A.

Recommended Pedestrian Circulation Plan and Other Outdoor Facilities

Pedestrian Promenade

The 2025 Updated FMP recommends the completion of the Pedestrian Promenade that was developed as part of the 1999 Educational and Facilities Master Plan. This will take place following the demolition of the existing Auxiliary Gym Building. The Promenade would be the primary pedestrian route through the campus, connecting with all secondary pedestrian pathways, and assisting in wayfinding and student orientation throughout the campus. In addition, the Promenade would define the "outdoor rooms" that will be developed as part of the 2025 Updated FMP.

Pedestrian Spines

The primary pedestrian circulation for the campus is defined by the curved Promenade and two primary north-south spines – the West Pedestrian Walk and the East Pedestrian Walk. These spines will provide pedestrian connections to the core of the campus, bordering major open spaces, and will be used to create specialty gardens and outdoor plazas along them that act as informal gathering spaces. Additionally, the east-west pedestrian walkways through Parking Lot E and the East Athletics Fields Path will provide connections from parking to the athletic fields.

The 2025 Updated FMP recommends that (1) vehicular traffic (other than emergency and minimal service) be removed from the interior campus and spines; and (2) the pedestrian experience through the campus be improved through the use of landscape elements such as specialty paving, seating, structured tree locations, planting, signage, and lighting.

Main Plaza

The Main Plaza will be located between the Student Services/Career Center, the Jaguar Gym, and the PE Complex. This large plaza space will accommodate moderate levels of mixed uses, including large-scale events, student presentations, public demonstrations, and festivals. The plaza will contain large-scale decorative paving consistent with the campus architecture and hardscape identity. Plans include the addition of seatwalls and benches to create spaces for group use. Additionally, trees are recommended for shade and spatial definition, and there is a potential to include a focal point such as a fountain element.

Central Green

The Central Green is the principal quad and will serve as an outdoor gathering space and focal point for varied campus activities. The design will provide seating for both active and passive activities. The plantings will be minimal with small areas of grass and low level (under 24-inch) landscaping.

Some recommendations for the Central Green include reinforcing the pedestrian circulation throughout the campus; providing visual interest and outdoor gathering areas for students, staff, and visitors; incorporating seatwalls or benches at the perimeter; planting with large-scale trees (35 feet or higher) for shade and spatial definition; and including design elements reflective of the history of the campus.

West Green

The West Green is located close to the new Multidisciplinary Classroom and Arts Complex (MDA) and the Promenade to the south. The outdoor space of the West Green will be redesigned to accommodate

increased mixed uses. Design elements may incorporate grassed berms, a sculpture garden, and a variety of seating. The design may incorporate rainwater collection basins surrounded by raised concrete seating, collection channels, native planting, and overflow of the rainwater into bioswales. The hardscape areas may be constructed of pervious paving surrounded by small areas of benches clustered under existing trees for shading.

Outdoor Arts Classroom

The Outdoor Arts Classroom will be located near the new Multidisciplinary Classroom and Arts Complex (MDA) and the Promenade to the south. The area between the MDA and Business buildings is intended to be used as an Outdoor Arts Classroom that connects to the Arts Plaza. Design elements may include a new native planting buffer and new deciduous trees adjacent to the Business building and the addition of raised seat walls and a small outdoor stage to support teaching, performance, and small group gathering.

Performing Arts Center Plaza

The Performing Arts Plaza will provide an outdoor gathering space to support a variety of formal and informal gatherings. The plaza will host before and after theater events and tie into the main campus quad activities.

Conceptual design elements for the Performing Arts Plaza include incorporating art display areas; providing a variety of seating; using decorative paving; and providing edge elements to define the boundaries of the space.

Recommended Landscape Improvements

Evergreen Landscape Buffer

As originally proposed in the 1999 Master Plan, an evergreen landscape buffer planting edge will be incorporated along all campus boundaries that directly interface with adjacent properties. The buffer will consist of a dense planting of evergreen trees intended to screen the campus from adjacent activities, properties, vehicular corridors, and to provide a defined campus edge.

Courtyards

The 2025 Updated FMP includes a number of small courtyards consisting of pedestrian-scale outdoor spaces that would accommodate minimum levels of users located immediately adjacent to academic buildings. Small courtyards would typically be used for seating and passive use gathering at the entry

and exit routes to buildings. They will be landscaped to emphasize the building entry points and to reflect the individual 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, SJCC 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.

3.8 PROJECT APPROVALS

As defined by the California Environmental Quality Act (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. 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 SJCC 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;
- San José Municipal Water District; and
- California Transportation Department for proximity to I-280.

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 San Jose City College (SJCC) campus under the 2025 Updated Facilities Master Plan (FMP). Each topical subsection describes the environmental setting of the project as it relates to that specific environmental topic; the impacts that could result from implementation of the project; and mitigation measures that would avoid, reduce, or compensate for the significant impacts of the 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
- Greenhouse Gas
- Land Use and Planning
- Noise
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Potential impacts of the proposed project on Agricultural and Forestry Resources, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Mineral Resources, and Population and Housing are addressed in the Initial Study prepared for the 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 adverse impacts. The definition of terms used in this EIR is 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 SJCC 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 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 topical section.

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 select 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
Approved		
H06-027	N/S of Stevens Creek Boulevard b/t Winchester Boulevard and Monroe Street	49 ksf Commercial
NSJ	North San Jose	12.5 msf Research & Development
		6,000 du Residential
PDC00-08-068	Fruitdale Avenue & Southwest Expressway	500 du Single-Family Attached Residential
		40 ksf Retail
		250 ksf Office
PDC02-046	Delmas Avenue & San Fernando Street	325 du Residential
		1.04 msf Commercial and Retail
PDC02-102	San Carlos Street & Buena Vista Avenue	100 du Senior
		32 du Single-Family Attached Residential
		4,000 sf Retail
PDC89-09-121	La Barbera Drive & Southwest Expressway	95 units Single-Family Attached Residential
PDC97-06-036	Stevens Creek Boulevard & Winchester Boulevard	1600 du Residential
		695 ksf Commercial
Pending		
PDC07-017	N/W corner San Carlos Street & Lincoln Avenue	47 du Single-Family Attached Residential
PDC07-043	North end of South Baywood Avenue	104 du Single-Family Attached Residential
PDC07-083	S/E corner Southwest Expressway & Leigh Avenue	64 du Multi-Family Residential.
PDC07-096	S/W corner San Carlos Street & Meridian Avenue	218 du Single-Family Attached Residential
PDC08-061	S/W corner San Carlos Street & Sunol Street	825 du Multi-Family Residential
		50 ksf Commercial
PT06-078	N/W corner San Carlos Street & Meridian Avenue	84 du Single-Family Attached Residential
PT07-036	N/E corner Park Avenue & Sunol Street	122 du mixed-use Condos
--	South Monroe Street and Tisch Way	104 du townhomes
		90 ksf office

Source: San Jose City College Facilities Master Plan Transportation Impact Analysis, 2012
sf – square feet; ksf – thousand square feet; msf – million square feet; du – dwelling units

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 other foreseeable 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; and
- 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 San José City College (SJCC) campus and the surrounding area and analyzes the potential for implementation of the 2025 Updated Facilities Master Plan (FMP) 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 or 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 SJCC campus and the areas from which the campus is visible within a 0.25-mile radius. The term "campus" encompasses the entire 54.5-acre campus. See **Section 3.0, Project Description**, for further details on the project site and surroundings.

4.1.2.2 Visual Character of San José City College Campus

Topography and Vegetation

The SJCC campus is situated in the Santa Clara Valley at an elevation of 135 to 145 feet above sea level, approximately 10 miles from the southerly end of San Francisco Bay. The topography of the campus and surrounding area is flat, and there is no natural surface water on the campus or in the surrounding area. Vegetation on the campus consists of small landscaped areas outside the campus buildings, grass in the sports fields on the east side of the campus, and other landscaping throughout the campus.

Trees are located throughout the campus, including in areas along Kingman Avenue, at the corner of Moorpark Avenue and Leigh Avenue, bordering campus parking lots, along pedestrian paths, and near a number of campus buildings. According to a tree survey conducted in 2009, a total of 698 trees are located on the campus, representing 63 species. The most frequently occurring species on the campus include coast redwood (169), sweetgum (55), silver dollar gum (39), Chinese pistache (34), Canary Island

pine (32), London plane (25), coast live oak (25), cork oak (21), mayten (20), and Southern magnolia (17). These 10 most frequently occurring species comprised 437 trees, or 63 percent of those surveyed. A majority of the trees on the campus were planted for landscaping and are not indigenous to the site. While there may be a few coast live oaks that have arisen naturally on campus, there are no large areas of native vegetation. Overall, 60 percent of the trees surveyed were determined to be in the good or excellent condition. Of the remaining trees, 174 trees, or 25 percent were found to be in fair condition while 105 trees, or 15 percent, were found to be in poor condition. Dead trees found during the survey included one coast redwood and three Japanese maples (HortScience 2009).

Structures

Figure 3.0-3, San Jose City College Campus, (in **Chapter 3.0**) shows the existing buildings and other facilities on the campus. Existing campus buildings are mainly concentrated in the central, western, and northern parts of the campus. Sports fields, such as the softball field and football and track stadium, are mainly located in the central and eastern portions of the campus. The multi-use athletic field is located in the southeastern portion of the campus, adjacent to Leigh Avenue. Older campus buildings are generally one to two stories high. The Theater building, Library, and Student Center, located in the northern portion of the campus, are the equivalent of three to four stories (30 to 40 feet) high, and the Technology Center at the northwest corner of the campus is five 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, metal, and glass. The white Theater building and brown parabolic roof of the Men's Gym are visible from many parts of the campus and the surrounding streets.

As shown in **Figure 3.0-2, Surrounding Land Uses**, (in **Chapter 3.0**), the surrounding buildings are also mostly one to two stories tall and range in size and use from small single-family homes to multi-unit apartment buildings and large commercial buildings. North of the campus, across Interstate 280 (I-280), are one- to two-story single-family homes. South of the campus is one- to two-story single- and multifamily residential housing. To the east of the campus across Leigh Avenue are the Immanuel Lutheran Church, Crossroads Bible Church, San José Fire Station No. 4, multifamily residential buildings, and single-family residences. One- to two-story commercial buildings are located west of the campus along the east side of South Bascom Avenue. Across South Bascom Avenue to the west are the Santa Clara Valley Medical Center and Valley Health Center, which are seven and three stories tall respectively and are visible from the campus beyond the adjacent buildings.

Land uses in the campus area have been developed fairly densely, with no large open areas; for that reason, views in the campus area are generally blocked by development. I-280, which is directly north of the campus, is up to 30 feet below grade along the campus frontage and the roadway itself is generally

not visible from the campus. Only partial views of the High Technology Center and Library on the SJCC campus are visible from I-280.

4.1.2.2 Existing Campus Views

The campus provides existing views of buildings and sports facilities. As shown in **Figure 4.1-1, Viewpoint Locations**, several views from vantage points around the edge of the campus and within the campus were selected to depict the existing visual character of the campus. **Figures 4.1-2** through **4.1-4, Existing Campus Views**, provide photographs of the campus from these vantage points.

Viewpoint 1

Viewpoint 1, Figure 4.1-2 provides a view of the northeastern entry to the campus from the intersection of Moorpark and Leigh Avenues, looking southwest across the intersection. This view is from the vantage point of a vehicle and/or pedestrian traveling southbound across the intersection. The entry gate, pedestrian path and a portion of the student parking garage are visible in the foreground. Mature trees are also prominently visible in this view.

Viewpoint 2

Viewpoint 2, Figure 4.1-2 provides a view of the multi-use athletic field from the apartment complex located to the south of the SJCC campus. This view is from the vantage point of a resident standing on the second story balcony. The athletic field and residences located along Lehigh Drive are visible in the foreground.

Viewpoint 3

Viewpoint 3, Figure 4.1-3 provides a view of a parking lot and the 100 Wing Building, looking northwest from Mansfield Drive. This view is from the vantage point of a vehicle and/or pedestrian traveling northbound on Mansfield Drive and residents located in the adjacent neighborhood. Pavement, landscaping, fencing, and a light pole are visible in this view.

Viewpoint 4

Viewpoint 4, Figure 4.1-3 provides a view of Parking Lot E looking northeast from the intersection of Kingman Avenue and Laswell Avenue. The view is from the vantage point of a vehicle and/or pedestrian traveling eastbound on Kingman Avenue. Parked vehicles, light poles, and landscaping comprise this view. The Career Tech/Applied Science building is also visible in the background across the parking lot in this view.

Viewpoint 5

Viewpoint 5, Figure 4.1-4 provides a view down Laswell Avenue, looking south from Moorpark Avenue. The view is from the vantage point of a vehicle and/or pedestrian traveling eastbound on Moorpark Avenue. The street with street trees and streetlights are prevalent in this view. Campus signage and parking is also visible in this view.

Viewpoint 6

Viewpoint 6, Figure 4.1-4 provides a view of the campus library, looking south from the intersection of Leland and Moorpark Avenues. This view is from the vantage point of a vehicle and/or pedestrian traveling south on Leland Avenue. The library building, landscaping, and traffic signal are visible in this view.

Viewpoint 7

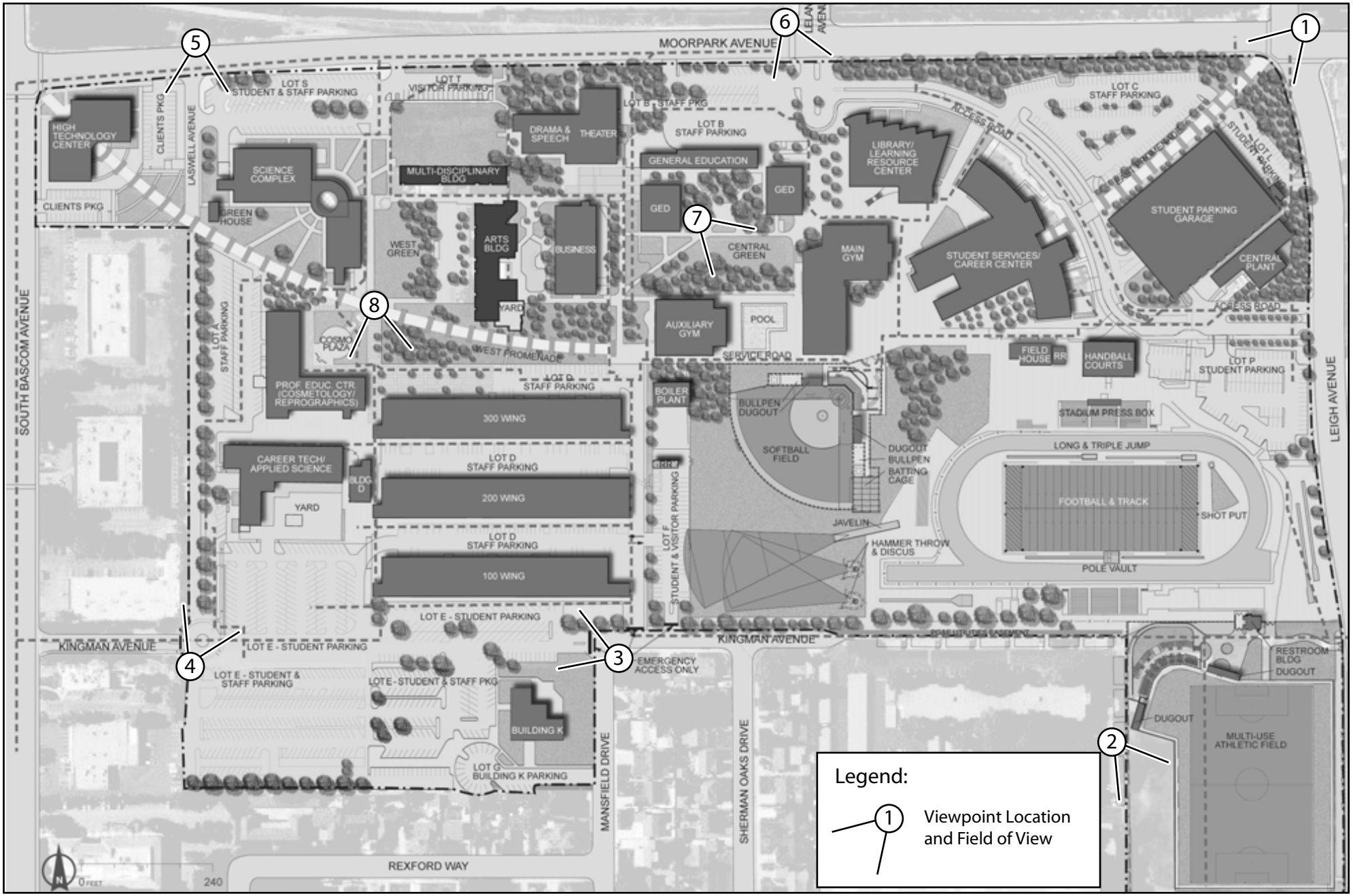
Viewpoint 7, Figure 4.1-5 provides a view of the central green in the north central portion of the campus, looking southeast from the GED building. The view is from the vantage point of pedestrians walking south past the GED building. Light poles, grass lawns, and mature trees are visible in this view. The main gym is located in the background.

Viewpoint 8

Viewpoint 8, Figure 4.1-5 provides a view of the south central portion of the campus, looking south along a pathway next to the Cosmo Plaza from the west promenade. This view is from the vantage point of a pedestrian walking traveling south on the pathway. The brick pathway, mature trees, grass lawns, and street furniture are prevalent in this view. The Professional Education Center (Cosmetology/Reprographics) and 300 Wing building are located in the background.

4.1.2.3 Existing Lighting

For purposes of this analysis, "light" refers to light emissions, or the degree of brightness, generated by a given source. Artificial lighting may be generated from point sources (i.e., focused points of origin representing unshielded light sources) or from indirectly illuminated sources of reflected light. 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.



SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **4.1-1**

Viewpoint Locations

461-03•08/12

Viewpoint 1

Viewpoint 2

SOURCE: Impact Sciences, Inc. – May 2012

FIGURE **4.1-2**

Existing Campus Views

Viewpoint 3

Viewpoint 4

SOURCE: Impact Sciences, Inc. – May 2012

FIGURE **4.1-3**

Existing Campus Views

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

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 residential units 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 nature of 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 can be disturbed by bright lights.

Existing nighttime lighting at SJCC is located throughout the campus, along pedestrian walkways, in parking lots, and outside of the campus buildings. The football field is lit on game nights, and the small tennis court in the middle of the campus and the swimming pool are lit at night. The tennis courts and soccer field at the southern end of the campus are not lit at night. Most of the outdoor lights on the campus consist of high-pressure sodium vapor lights. Some lights, such as the lights over the football/track field, are metal halide lights (SJECCD 2010). The multi-use athletic field is not lit at night.

4.1.2.4 Existing Glare

Glare 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 or perceived by a sensitive receptor and/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 large buildings clad with broad expanses of glazing (for example, high-rise glass-exterior commercial buildings) or highly polished surfaces or with broad, light-colored areas of paving. Parking lots with large numbers of vehicle windshields can also be substantial sources of 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 that are visible from the surrounding areas. As discussed above, campus buildings are mostly one to two stories in height, with a few three- to five-story buildings. The buildings do not have extensive areas of highly reflective windows, and most buildings are partially screened by trees and vegetation. Parking areas located in the interior of the campus, along the north and west side of the campus, or indoors are only partially visible from surrounding areas, and the parking lots located on the south and east sides of the campus near adjacent residential areas are largely screened by trees.

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

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

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.

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 impact 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. There are no scenic vistas that include the campus as a major part of the view. In addition, the campus and surrounding area are characterized by flat topography and do not contain any ridgelines or other topographic forms that would be affected by campus development or that

provide views of the campus and its surroundings (SJECCD 2008). Ground-level views into the campus from surrounding areas are limited by buildings and trees on the campus, and views of the surrounding areas are also limited by flat topography and extensive urban development. There are thus no scenic vistas in the campus area. 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

The segment of I-280 that is adjacent to the SJCC campus is not a state-designated scenic highway (CSHP 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 City of San José, 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 as a result of 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

Overall buildout of the 2025 Updated FMP would involve the demolition of some existing buildings, construction of new buildings, and the renovation of existing buildings on the campus in an area that is already developed. In addition, new parking lots and improved roadways and pedestrian access would be added along the periphery of the campus. As a result, buildout of the 2025 Updated FMP would alter the existing visual character of the campus and, depending on the nature and scale of the development, these changes have the potential to have adverse effects on visual character and quality.

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. For example, the General Education Building, Vo-Tech Building, and Performing Arts Center would be located on the sites of the 200 and 300 buildings while the proposed Physical Education Complex would be located on the site of the Fieldhouse, Restrooms, and Handball Courts. As a result, the scale of development on campus after buildout of the 2025 Updated FMP would generally be similar to existing conditions.

In addition, the 2025 Updated FMP includes several elements that would improve the visual character of the campus. The plan recommends that an evergreen landscape buffer be incorporated at all campus boundaries that directly interface with adjacent properties in order to screen the campus from adjacent activities, properties, and vehicular corridors and to provide a defined edge. In addition, the plan includes improved and expanded open space areas throughout the campus core. For example, the central green would be expanded and would serve as a large observable classroom for varied campus activities. The west green, located to the west of the Arts building, would also be expanded and would provide opportunities to incorporate grassed berms, a sculpture garden, a variety of seating, and other elements in the Arts precinct. As these features would partially replace areas currently developed with parking lots or older, outmoded buildings, they would have a positive effect on the visual character of the campus.

Finally, the SJECCD is in the process of preparing design review guidelines which will guide development on campus. The guidelines will be complete by the 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.

Implementation of the 2025 Updated FMP would 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 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 these reasons, the potential impacts to 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.

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 create new sources of substantial light or glare which could adversely affect day or nighttime views in the area.**

Level of Significance: Potentially significant

The proposed project would shift some light sources and could increase light in portions of the campus, due to the new campus buildings and parking. These changes could affect daytime and nighttime views. New light sources would be introduced on the west-central part of the campus where the General Education Building, Vo-Tech Building, and Performing Arts Center are proposed. In addition, the proposed Physical Education Complex would increase light sources in the east-central part of the campus. The new light sources on the west-central part of the campus would be approximately 275 feet from existing residential neighborhoods to the south and while the new light sources on the east-central part of the campus would be about 240 feet from existing residential neighborhoods to the east. As a result, light spill over from new light sources on the campus would not occur. However, increased nighttime glare from these new light sources could negatively affect these nearby residential neighborhoods, thus resulting in a potentially significant impact. **Mitigation Measure AES-2a** is proposed to require that all new exterior lighting for future projects on the SJCC campus shall incorporate downward-directed lighting or cutoff-type lighting in order to minimize light spill and nighttime glare.

No new facilities are proposed near the campus edges. As a result, no new sources of lighting would be located along the campus edge. In addition, no new lighting is planned for the multi-use athletic field, although the existing low-level safety lighting around the restrooms and walkways would remain in place. In addition, the 2025 Updated FMP proposes a landscape buffer along the campus's eastern and southern boundary that would help screen existing and new sources of nighttime lighting and daytime glare from adjacent neighborhoods. However, this landscape buffer is not proposed for a section of the campus's southern boundary between approximately Mansfield Drive and Sherman Oaks Drive. A portion of an expanded parking lot (New Parking Lot A) would be located north of this segment where the landscape buffer is not proposed. While landscaping is proposed along the southern edge of New

Parking Lot A, the landscaping is minimal and glare from parked vehicle could still affect the residential neighborhood immediately to the south of New Parking Lot A, thus resulting in a potentially significant impact. **Mitigation Measure AES-2b** is proposed to require that additional landscaping consisting of large trees and ground bushes be installed along the southern portion of New Parking Lot A from the Central Pedestrian walk to Mansfield Drive to minimize glare impacts.

MM AES-2a: All new exterior lighting for future projects on the SJCC campus shall incorporate downward-directed lighting or cutoff-type lighting in order to minimize light spill and nighttime glare.

MM AES-2b: Additional landscaping consisting of large trees and ground bushes shall be installed along the southern edge of New Parking Lot A from the Central Pedestrian walk to Mansfield Drive to minimize glare impacts to the residential neighborhood immediately south of New Parking Lot A.

Significance after Mitigation: Less than significant

4.1.4.4 Cumulative Impacts and Mitigation Measures

The City of San José is predominantly 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 urban setting since most development would consist of changing the visual appearance of those sites from one developed land use type to another, although some local 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, while it is not expected that future projects would cause significant impacts related to light and glare, nearby sensitive receptors could be significantly affected. However, as the proposed project includes mitigation to minimize light and glare impacts to a less than significant level, the contribution of the proposed project to this cumulative impact would be less than cumulatively considerable.

4.1.5 REFERENCES

California Department of Transportation. 2008. "California Scenic Highway Mapping System." www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm. 2008.

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*

HortScience, Inc. 2009. Tree Survey and Inventory San José City College, October

San José/Evergreen Community College District (SJECCD). 2008. Initial Study for San José City College Facilities Master Plan Update 2021.

San José/Evergreen Community College District (SJECCD). 2010. Final Subsequent Environmental Impact Report for the San José City College Facilities Master Plan Update 2011. Prepared by Mass Companies, Inc.

4.2 AIR QUALITY

4.2.1 INTRODUCTION

This section presents existing air quality conditions in the area of the San José City College (SJCC) campus and analyzes the potential air quality impacts associated with implementation of the 2025 Updated 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 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. Air quality emission calculations conducted for the proposed project are contained within **Appendix 4.2** of this environmental impact report (EIR).

No public and 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 City of San José, which is situated in the Santa Clara Valley in the southern portion of the San Francisco Bay 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 northwesterly winds 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 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 gets 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 U.S.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		Most Relevant Health Effects
	State Standard (CAAQS)	Federal Primary Standard (NAAQS)	
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 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 3 miles northeast 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 PM_{10} standard, and federal 24-hour $PM_{2.5}$ 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.

4.2.2.4 Surrounding Land Uses and Sensitive Receptors

Sensitive land uses in the vicinity of the campus include residential neighborhoods and hospitals. The SJCC campus is located in an urban setting, and is surrounded by a variety of land uses. Off-campus sensitive receptors include single-family and multi-family residential uses to the east and south, and single-family residential uses to the north across I-280. Other sensitive receptors in the vicinity of the campus include Immanuel Lutheran Church, Crossroads Bible Church, and Neighborhood Christian Preschool to the east, the Valley Medical Center to the west, and Sherman Oaks Community Charter School to the south.

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 (PM_{10})				
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 ($PM_{2.5}$)				
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.*

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 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 (San Francisco City and County)**.

Table 4.2-3
National Ambient Air Quality Standard Designations
San Francisco Bay Area Air Basin (San Francisco City and County)

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 (CalEPA), 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 [NO_X]), 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 being 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 State Implementation Plan (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 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/hr. 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/hr fired exclusively with natural gas, liquefied petroleum gas, or a combination or boilers with a heat input rating greater than 1 million BTU/hr 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 California Environmental Quality Act (CEQA) 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* recommend thresholds for use in determining whether projects would have significant adverse environmental impacts, identify methodologies for predicting 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 *State 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 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."[2] The Court did not rule on or question the adequacy of the evidentiary basis supporting the significance thresholds that are contained in the 2010 *State 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 2010 *State CEQA 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 *CEQA Air Quality 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 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 SJECCD has however examined the technical studies and evidence supporting the BAAQMD Guidelines and has determined that it will use the methodological approach and thresholds in the Guidelines to evaluate the impacts of the proposed project. The BAAQMD's evaluation criteria for determining air quality impacts provide defined screening thresholds

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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.

for pollutant emissions. These screening thresholds for air quality impacts from the BAAQMD *CEQA Air Quality Guidelines* are presented below.

Construction Emissions

Impacts related to 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
NOx	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
NOx	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 $PM_{2.5}$ 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 $PM_{2.5}$ 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 traffic associated with the proposed project would not cause conditions that would be expected to result in a CO hotspot; therefore, a CO analysis is not 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 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 development 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 daily emissions are described 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 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 provided would be the maximum daily emissions due to an average 12-month period of construction including all construction phases. Site-specific or project-specific data was 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, BAAAQMD 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, identifies 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**	**NOx**	**CO**	**SOx**	**PM10 (PM10 exhaust)**	**PM2.5 (PM2.5 exhaust)**
Average Maximum Daily Emissions	10.38	17.17	17.00	0.01	5.82 (0.90)	1.77 (0.85)
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 above table, 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.

Operational emissions from campus development under the 2025 Updated FMP were also estimated. The mobile source emissions associated with the proposed project 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 of the proposed project was provided by the traffic study prepared for the proposed project (Fehr & Peers 2012). In addition, URBEMIS2007 incorporates trip distances and emission factors specific to counties, air basins, and air district jurisdictions. For the proposed project, parameters specific to Santa Clara County were used to estimate mobile and area source emissions.

The proposed project 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. However, the campus is currently in an 'overbuilt' state according to Title 5 guidelines, meaning that the amount of building space on the campus exceeds the needs of the Educational Master Plan. Consequently, the proposed project will result in an overall reduction in building space, from approximately 427,300 square feet of space to about 353,740 square feet of space in 2025. At the same time, the total enrollment at the campus is expected to increase, from approximately 11,780 students to about 14,450 students by 2025. 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 decline 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 the proposed project was increased based on the percent growth rate in student population.

With respect to stationary sources, it is projected that one diesel-fueled emergency generator will be installed on the campus. This stationary source requires 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 generator were calculated using emission factors from the US EPA's AP-42 database of emission factors. The campus currently has four boilers fueled by natural gas and rated at 5.5 million BTU's each. It is anticipated that there would be no change in the number or type of boilers on the campus, and therefore no net change in emissions from the boilers. Emissions from the boilers were estimated using the same methodology as for the emergency generator, with the exception that they are assumed to operate continuously throughout the year.

Finally, to find the net increase in emissions due to the proposed project, 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 in **Table 4.2-8**, unmitigated operational emissions associated with the day-to-day activities of the proposed project would not exceed any of the operational thresholds of significance. On a net basis (emissions from the proposed project 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, and 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	NOx	CO	SOx	PM10	PM2.5
Summertime Emissions[1]						
Existing Campus						
Area Sources	2.92	4.15	5.02	0.00	0.02	0.02
Mobile Sources	63.50	76.24	833.89	0.83	150.29	28.51
Stationary Sources	1.60	10.69	24.46	0.17	2.21	2.21
Summertime Totals	68.02	91.08	863.37	1.00	152.52	30.72
Proposed Project						
Area Sources	2.44	3.44	4.42	0.00	0.02	0.02
Mobile Sources	36.84	33.40	435.99	1.01	184.25	34.66
Stationary Sources	1.61	10.83	24.49	0.17	2.22	2.22
Summertime Totals	40.89	47.67	464.90	1.18	186.49	36.90
Net (Proposed minus Existing)	**-27.13**	**-43.41**	**-398.47**	**0.18**	**33.97**	**6.18**
BAAQMD Thresholds	54	54	—	—	82	54
Exceeds Threshold?	NO	NO	—	—	NO	NO
Wintertime Emissions[2]						
Existing Campus						
Area Sources	2.80	4.13	3.47	0.00	0.01	0.01
Mobile Sources	75.24	115.69	899.28	0.71	150.29	28.51
Stationary Sources	1.60	10.69	24.46	0.17	2.21	2.21
Wintertime Totals	79.64	130.51	927.21	0.88	152.51	30.72
Proposed Project						
Area Sources	2.32	3.42	2.87	0.00	0.01	0.01
Mobile Sources	41.91	50.88	451.59	0.87	184.25	34.66
Stationary Sources	1.61	10.83	24.49	0.17	2.22	2.22
Wintertime Totals	45.84	65.13	478.95	1.04	186.48	36.89
Net (Proposed minus Existing)	**-33.80**	**-65.38**	**-448.26**	**0.16**	**33.97**	**6.17**
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 proposed project, including residential and hospital land uses. These receptors could potentially face an increased cancer and non-cancer human health risk due to TACs or PM2.5 emissions from the proposed project. 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 proposed project does not include any significant stationary sources of TACs or PM2.5. Although there would be increased vehicle traffic associated with operation of the proposed project, 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. The proposed project includes one emergency generator that would operate on diesel fuel. This source would require a permit to operate from the BAAQMD. The permit conditions limit the allowable operating hours for the generator to typically a few hours per month, with exceptions for use during emergency situations. Also, in order for a permit to be issued, the generator 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 which do not pass this screening analysis are required by the BAAQMD to mitigate 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.

The campus is located adjacent to the I-280 freeway. Any buildings constructed within 1,000 feet of a freeway have a potential to expose building users to high pollutant levels associated with the freeway. The BAAQMD provides a screening tool for risks associated with freeways in the air basin. According to the BAAQMD screening tool, acute and chronic health risks on the campus are both below the hazard index of 1 for all distances from the freeway link closest to the campus. The cancer risk is however above the threshold of 10 in 1 million for distances less than 1,000 feet from the center of the freeway. However, the risks included in the screening tool are for residential receptors, and assume a roadway at grade with the adjacent areas. The section of freeway adjacent to the campus is well below grade, which would have the effect of greatly reducing the quantity of particulate matter moving from the freeway to the campus. Furthermore, cancer rates for residents are based on daily exposure over a 70-year period. Students would be on the campus for only a few hours per day, limited days per week, and for a few years, reducing their exposure considerably. Consequently, it is expected that the project would not expose on-

campus receptors to substantial concentrations of toxic air contaminants. The impact related to toxic air contaminant emissions 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 sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, the BAAQMD *CEQA Air Quality 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, the proposed project would not exceed any of BAAQMD's thresholds of significance, the proposed project 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 (*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 included in the significance threshold. As shown in **Tables 4.2-7 and 4.2-8**, the proposed project would not exceed emission thresholds. Also as noted above, cumulative health impacts from operation of the proposed project would not exceed significance thresholds for cancer risk or noncarcinogenic health risk. Based on this analysis, the proposed project would result in a less than significant cumulative impact.

4.2.5 REFERENCES

Fehr & Peers. January 2012. *San José City College Facilities Master Plan: Draft Transportation Impact Analysis.*

Bay Area Air Quality Management District. 1997. *1997 Clean Air Plan and Triennial Assessment*. December.

Bay Area Air Quality Management District. 2000. *2000 Clean Air Plan and Triennial Assessment*. December.

Bay Area Air Quality Management District. 2001. *Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard*. October.

Bay Area Air Quality Management District. 2006. *Bay Area 2005 Ozone Strategy*. January.

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

Bay Area Air Quality Management District. May 2011. "CEQA Air Quality Guidelines."

Bay Area Air Quality Management District. May 2012. "CEQA Air Quality Guidelines."

California Air Resources Board and Office of Environmental Health Hazard Assessment. 2010. "Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values." http://www.arb.ca.gov/toxics/healthval/healthval.htm.

Office of Environmental Health Hazard Assessment. Air Toxics Hot Spots Program. 2003. *Guidance Manual for Preparation of Health Risk Assessments*. August.

Rimpo and Associates. 2008. "URBEMIS2007 for Windows." http://www.urbemis.com.

United States Environmental Protection Agency. 1995. "Compilation of Air Pollutant Emission Factors (AP 42), Fifth Edition." http://www.epa.gov/ttnchie1/ap42/

United States Environmental Protection Agency. 2010a. "Class I Ozone Depleting Substances." http://www.epa.gov/ozone/science/ods/classone.html

United States Environmental Protection Agency. 2010b. The Accelerated Phase-Out of Class 1 Ozone-Depleting Substances. http://www.epa.gov/ozone/title6/phaseout/accfact.html.

4.3 GREENHOUSE GAS EMISSIONS

4.3.1 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 San José City College (SJCC) campus. The section also provides 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 4.2** of this EIR.

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

- If the 2025 Updated FMP is consistent with the *Envision San José 2040 General Plan*, the San José/Evergreen Community College District (SJECCD) may choose to tier from or incorporate by reference the City of San José's Greenhouse Gas (GHG) Reduction Strategy from the General Plan EIR.

Although the proposed project is consistent with the City's General Plan, SJECCD has chosen not to rely upon or incorporate by reference the GHG analysis prepared by the City as part of the GP EIR and has conducted its own evaluation of the project's greenhouse gas impact which is presented later in this section.

4.3.2 EXISTING CONDITIONS

4.3.2.1 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

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, which has 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.

4.3.2.2 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]).

4.3.2.3 Contributions to Greenhouse Gas Emissions

Global

Worldwide anthropogenic (manmade) 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. Manmade 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 4.3-1, 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 4.3-1**; 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 4.3-1
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 4.3-1**, 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 4.3-2, 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 4.3-2
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**	**4.3%**	**24.32**	**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) (California 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 that 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 4.3-3, Comparison of Global Pre-Industrial and Current GHG Concentrations**).

Table 4.3-3
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	1774
Nitrous Oxide (N_2O)	270	NA	319

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

4.3.3 REGULATORY FRAMEWORK

4.3.3.1 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 the adaptation 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).

4.3.3.2 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.

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

4.3.3.3 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 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 through 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 their 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 have 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 4.3-2**, 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; and
- 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 4.3-4, 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 4.3-4
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 metric tons of CO_2 equivalents ($MTCO_2e$); 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, which 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.

4.3.3.4 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 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 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 *State 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.

4.3.3.5 Applicable Local Plans and Policies

San José/Evergreen Community College District

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. According to California state law, the SJECCD is an independent entity outside the jurisdiction of municipal and county environmental plans. Consequently, the SJECCD is not required to comply with the City's GHG Reduction Strategy.

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 applicable plan is AB 32. The BAAQMD's Clean Air Plan (CAP), which is a multi-pollutant plan that includes GHG and would ordinarily be considered the applicable plan, specifically states that it is not to be considered a GHG reduction plan. Therefore, 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.

4.3.4 IMPACTS AND MITIGATION MEASURES

4.3.4.1 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 *2013 State CEQA Guidelines* include Section 15064.4, which states that, when making a determination with respect to the significance of a project's 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 the impact 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 has put forth significance thresholds for operational GHG emissions in its

CEQA Air Quality Guidelines. There are no significance thresholds for construction emissions of GHG, though 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 with 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 is 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 proposed project's significance with respect to the GHG emissions and 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.

4.3.4.2 Issues Not Discussed Further

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

4.3.4.3 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 are 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 does 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 4.2**.

4.3.4.4 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 approximately 14,450 students, and (2) about 353,740 square feet of campus buildings, in contrast to a total current population of approximately 11,780 students and about 427,300 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.

Campus development under the 2025 Updated FMP would result in the reduction of GHG emissions, both directly and indirectly compared to existing conditions. GHG emissions would be reduced due to the overall reduction of building space, as well as the replacement of older, less efficient buildings with newer more efficient buildings constructed according to the requirements of the California Green Building Standards. 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 the 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 SJECCD 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 3,325 metric tons. These emissions would occur over the 12-year

construction period and the annual emissions would be about 277 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 BAAQMD Greenhouse Gas Model (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 the basis of square footage of building space. 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 attending the college.

Stationary Source Emissions

Stationary sources include area sources (landscaping, hearths and fireplaces), general 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 (2 Year) land-use type.

Campus operations also include boilers and an emergency generator. The campus currently has four boilers running on natural gas at a rating of 5.5 million British thermal units (MMBtu) per hour each, with no new boilers proposed. The campus does not have any emergency generators at present, but would add one diesel-fueled emergency generator under the proposed project. The rating of the generator is not currently known, so it is assumed to be similar to the existing generators at the SJECCD Evergreen Valley College (EVC) campus which are primarily small 25-kW units. GHG emissions from the boilers and generator were calculated using emission factors from the California Climate Action Registry's *General Reporting Protocol* (CCAR 2009).

Total Operational Emissions

Table 4.4-5, Estimated Operational GHG Emissions, shows a summary of total estimated GHG emissions from operation of the existing campus facilities as well as the proposed project and compares the net difference to the BAAQMD significance threshold. The service person (SP) figure for this analysis was assumed to be the additional number of students associated with the proposed project, or about 2,670 persons.

As shown in **Table 4.4-5**, the proposed project's operational emissions would not exceed the threshold of 4.6 $MTCO_2e$/SP and the impact from the project's operation emissions would be less than significant.

Mitigation Measure: No mitigation is required.

Table 4.4-5
Estimated Operational GHG Emissions

GHG Emissions Source	Emissions (Metric Tons CO_2e/year)
Existing Campus	
Mobile Sources (Transportation)	18,690
Area Sources	1
Electricity	1,985
Natural Gas	949
Water & Wastewater	30
Solid Waste	358
Boilers	5,767
Emergency Generators	0
Total Existing Operational GHG Emissions	**27,780**
Proposed Campus	
Mobile Sources (Transportation)	17,666
Area Sources	1
Electricity	1,642
Natural Gas	786
Water & Wastewater	25
Solid Waste	296
Boilers	5,767
Emergency Generator	1
Total Proposed Operational GHG Emissions	**26,184**
Total Net Operational GHG Emissions	**-1,596**
Total Net Operational GHG Emissions per SP	**-0.60**
BAAQMD Threshold	**4.6**
Exceeds Threshold?	NO

Source: Impact Sciences, Inc. Emissions calculations are provided in ***Appendix 4.2****.*

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 adopted their GHG significance thresholds specifically to meet AB 32 requirements within their 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 plan-level GHG emissions, it is in compliance with AB 32.

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 first among the principles developed as part of the planning process. Features included to address this principle include:

- use of natural light and ventilation in new buildings;
- highly efficient HVAC systems;
- landscaping design that features sustainable materials and elements, encourages outdoor activities and meetings, improves connection between sections of the campus for pedestrians, and includes existing mature trees within the new landscape; and
- solar energy generation;

The overall focus on efficiency and flexibility in the 2025 Updated FMP allows the SJCC campus to increase student enrollment even while reducing the square footage of actual building space on the campus, and thus reducing GHG emissions both overall and on a per student basis. The proposed project would 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.

4.3.4.5 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.

4.3.5 REFERENCES

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

California Air Pollution Control Officers Association (CAPCOA). 2008. C*EQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*.

California Air Resources Board (CARB). 2010. *California Greenhouse Gas 2000-2008 Inventory by Scoping Plan Category – Summary.* http://www.arb.ca.gov/cc/inventory/data/data.htm.

California Building Standards Commission. 2009. 2008 California Green Building Standards Code.

California Building Standards Commission. 2010. "CALGreen," http://www.bsc.ca.gov/CALGreen /default.htm.

California Climate Action Registry. 2009. *General Reporting Protocol: Reporting Entity-Wide Greenhouse Gas Emissions Version 3.1*.

California Department of Finance. 2008. "E-5 City/County Population and Housing Estimates, 2008, Revised 2001-2007, with 2000 Benchmark," http://www.dof.ca.gov/research/demographic/reports /estimates/e-5_2001-06/.

California Department of Finance. 2009. *Financial & Economic Data: Gross Domestic Product, California.* http://www.dof.ca.gov/HTML/FS_DATA/LatestEconData/FS_Misc.htm. June 2.

California Energy Commission. 2002. *Diesel Use in California*, Remarks by Commissioner James D. Boyd.

California Energy Commission. 2006a. *Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004.*

California Energy Commission. 2006b. *Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report (CEC-500-2006-118)*. Prepared by Navigant Consulting, Inc.

California Energy Commission. 2007. *Revisions to the 1990–2004 Greenhouse Gas Emissions Inventory Report, Published in December 2006.* http://www.energy.ca.gov/2006publications/CEC-600-2006-013/2007-01-23_GHG_INVENTORY_REVISIONS.PDF.

California Environmental Protection Agency (Cal EPA), Climate Action Team. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*.

California Natural Resources Agency. 2009. *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*.

The Climate Registry. 2010. *Local Government Operations Protocol: For the quantification and reporting of greenhouse gas emission inventories*, Version 1.1.

Energy Information Administration. 2007. "Other Gases: Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride," http://www.eia.doe.gov/oiaf/1605/ggrpt/summary/other_gases.html.

Intergovernmental Panel on Climate Change (IPCC). 1996. *Climate Change 1995: The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the Intergovernmental Panel on Climate Change*.

Intergovernmental Panel on Climate Change (IPCC). 2007. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers.* http://ipcc-wg1.ucar.edu/wg1/docs/WG1AR4_SPM_PlenaryApproved.pdf.

South Coast Air Quality Management District (SCAQMD). 2008. *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*.

State of California, Governor's Office of Planning and Research (OPR). 2008. *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*.

State of California, Governor's Office of Planning and Research (OPR). 2009. *Draft CEQA Guideline Amendments for Greenhouse Gas Emissions*.

US Census Bureau. 2009. "Data Finders." http://www.census.gov/.

US Environmental Protection Agency (US EPA). 1996. AP-42 Compilation of Air Pollutant Emission Factors, Fifth Edition, Volume I, Chapter 3.4. October.

US Environmental Protection Agency (US EPA). 1998. AP-42 Compilation of Air Pollutant Emission Factors, Fifth Edition, Volume I, Chapter 1.4. July.

US Environmental Protection Agency (US EPA). 2000. AP-42 Compilation of Air Pollutant Emission Factors, Fifth Edition, Volume I, Chapter 3.1. April.

US Environmental Protection Agency (US EPA). 2005. *Greenhouse Gas Emissions from a Typical Passenger Vehicle (EPA420-F-05-004)*.

US Environmental Protection Agency (US EPA). 2008a. *Glossary of Climate Change Terms.* http://www.epa.gov/climatechange/glossary.html.

US Environmental Protection Agency (US EPA). 2008b. I*nventory of US Greenhouse Gas Emissions and Sinks 1990–2006*. http://www.epa.gov/climatechange/emissions/usinventoryreport.html.

US Environmental Protection Agency (US EPA). 2009. "Climate Change." http://www.epa.gov /climate change.

US Environmental Protection Agency (US EPA). n.d.(a) "High GWP Gases and Climate Change," http://www.epa.gov/highgwp/scientific.html#sf6.

US Environmental Protection Agency (US EPA). n.d.(b) "Methane: Sources and Emissions," http://www.epa.gov/methane/sources.html.

4.4 LAND USE AND PLANNING

4.4.1 INTRODUCTION

This section describes existing and planned land uses at the San José City College (SJCC) 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.

Public and agency comments related to land use and planning received in response to the Notice of Preparation (NOP) issued for this EIR requested that the EIR address the compatibility of existing and planned land uses on the campus with nearby residential areas and identify the ownership and proposed use, if any, of the abandoned PG&E easement bordering the south side of the campus, as this easement may become an "attractive nuisance" if not policed or maintained. These comments were considered in the analysis presented below.

4.4.2 ENVIRONMENTAL SETTING

4.4.2.1 Study Area

The SJCC campus and areas within a 0.5-mile radius of the campus constitute the study area for the land use and planning analysis. The SJCC campus includes a total of 54.5 acres.

4.4.2.2 Campus Land Use

The approximately 54.5-acre campus site is within the densely urbanized area of the City of San José, located in the eastern portion of the Santa Clara Valley. The campus is fully developed with approximately 25 buildings that were built from the 1950s to the present. The buildings and facilities include academic and administrative buildings; a library; athletic facilities and playfields; paved and landscaped plazas and courtyards; a multi-story parking structure; and surface parking lots. The buildings comprise approximately 427,300 square feet of space and range in height from one to five stories.

The generalized pattern of existing land uses on the SJCC campus is shown in **Figure 3.0-9**. As shown, instructional uses generally occupy the western and northern portions of the campus. Physical education and athletic facilities generally occupy the eastern and south central portions of the campus. Surface parking is mainly located near the eastern, northern, and southern perimeter of the campus.

Instructional and Supporting Uses

As shown on **Figure 3.0-9,** buildings that are categorized as instructional include the High Technology Center, Science Complex, Professional Education Center (Cosmetology/Reprographics), Career Tech/Applied Science Building, Multi-Disciplinary and Art Building, Theater Building, Business Building, 100 Wing, 200 Wing, 300 Wing, and three General Education buildings. Instructional uses are supported by the Library/Learning Resource Center, Student Services/Career Center, and other supporting uses such as the boiler plant and the central plant. Campus administrative functions are located in a portion of the Business Building, a portion of a General Education building, and in the Student Services/Career Center.

Other uses on the campus that contribute to the educational mission of the College include leased space to private parties in the Child Development Center and High Technology Center.

Physical Education and Recreation Facilities

As shown in **Figure 3.0-9,** existing physical education and athletic facilities include the main gym (also called Jaguar Gymnasium), auxiliary gym, field house, handball courts, portions of the 200 and 300 wings, the football and track stadium, the softball field, and a multi-use athletic field. In addition to these facilities, outdoor plazas and courtyards are located throughout the campus.

Parking

The SJCC campus currently provides approximately 2,100 parking spaces for students, faculty, staff, and San José/Evergreen Community College District (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 northern edges of the campus with one parking structure located in the northeast corner of the campus.

4.4.2.3 Existing Adjacent Land Uses

Surrounding land uses are shown in **Figure 3.0-2**. As shown, the campus is bordered by commercial uses and Valley Medical Center to the west, single-family and multi-family residential uses to the east and south, and the I-280 freeway to the north, with single-family residential uses further to the north of I-280.

4.4.3 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 regional agencies. It is Campus 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.

4.4.3.1 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 San Francisco Bay Area. 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 database 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) is the regional Water Quality Control Board that 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 municipal stormwater drainage system.

4.4.3.2 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 Envision San José 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, with the exception of the site of the High Tech Center which is designated as General Commercial (City of San José 2011).

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

The impact of the proposed project would also be considered significant if it would:

- Result in development of land uses that are substantially incompatible with existing adjacent land uses or with planned uses.

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.

- 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 within 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.

4.4.4.3 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 implemented under the 2025 Updated FMP.

4.4.4.4 Project Impacts and Mitigation Measures

Impact LU-1: **Implementation of the 2025 Updated FMP would not conflict with applicable land use 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 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 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 SJCC campus is not subject to local land use regulations. Nevertheless, the SJCC campus has considered the Envision San José 2040 General Plan in developing the 2025 Updated FMP. The Envision San José 2040 General Plan identifies the SJCC campus as a Public/Quasi Public land use. The changes on the campus pursuant to the 2025 Updated FMP would be consistent with this designation.

Bay Area 2010 Clean Air Plan

Air quality and greenhouse gas (GHG) impacts are analyzed in **Sections 4.2 Air Quality** and **4.3 Greenhouse Gas Emissions**. These analyses show that the implementation of the 2025 Updated FMP 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 would not conflict with the 2010 Clean Air Plan.

Santa Clara County Congestion Management Plan

Potential traffic impacts on CMP-designated intersections and freeway intersections in the vicinity of the SJCC campus were analyzed in **Section 4.7, Transportation and Traffic**. According to the analysis, CMP-designated intersections would not operate below the acceptable level of service standard established by the CMP (LOS E) with the addition of traffic generated by campus development pursuant to the 2025 Updated FMP. However, two freeway segments 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 and one segment 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 existing plus project conditions. However, given that only a few segments 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

Implementation of the 2025 Updated FMP 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 land uses or with planned uses adjacent to the campus.**

Level of Significance: Less than significant.

The 2025 Updated FMP does not propose land uses that are substantially incompatible with existing or planned land uses adjacent to the SJCC campus. As described above, existing land uses to the west of the campus are commercial or institutional (Valley Medical Center) and residential land uses to the north are separated from the campus by the intervening freeway. Therefore, any concerns about incompatibility with adjacent off-campus land uses are limited to the areas south and east of the campus where the existing land uses are residential. However, no incompatibility would result from the changes on the campus under the 2025 Updated FMP because the density of development on the campus would decrease under the 2025 Updated FMP compared to existing conditions due to the reduction in building space, and the overall pattern and type of campus development would generally be maintained. New buildings such as the General Education, Vo-tech, Performing Arts buildings, and the Physical Education complex would be clustered in the central portion of the campus in areas previously developed with buildings and campus recreational and sports facilities would remain at their present locations. No new buildings or changes in land uses are proposed in those portions of the campus that are immediately adjacent to the residential neighborhoods to the south and east of the campus. In addition, a landscaped buffer is proposed along the campus's eastern and southern perimeter to screen the campus facilities from the adjacent residential areas. Finally, the 2025 Updated FMP designates the easement bordering the south side of the campus, which is owned by PG&E, for a small roadway and a portion of the landscape buffer.

The use of the easement for a roadway and landscape buffer would be compatible with the adjacent parking lot that is part of the neighboring apartment complex. Therefore, surrounding land uses would continue to exist adjacent to a fully developed campus that would be generally similar to that which currently exist, and this impact is less than significant.

Mitigation Measure: No mitigation is required.

4.4.4.5 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.

4.4.5 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.

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*

4.5 NOISE

4.5.1 INTRODUCTION

This section describes the existing ambient noise environment of the San José City College (SJCC) 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 could be affected by campus development under the 2025 Updated Facilities Master Plan (FMP). The relevant noise standards and guidelines are described. Potential project-related noise sources, including construction activity, are discussed. The changes in estimated noise levels due to the proposed project are compared 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.

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

- The EIR should include more effective construction noise mitigation measures compared to mitigation measures implemented for past construction projects.
- The EIR should include noise mitigation for the stadium.

These issues are addressed in the analysis below.

4.5.2 ENVIRONMENTAL SETTING

4.5.2.1 Study Area

For purposes of evaluating the noise impacts of the proposed project, the study area is defined to include all of the campus, residences, or schools within 1,000 feet of the campus boundary, and major roadways and city streets leading to the campus, including Moorpark Avenue and Leigh Avenue.[1]

4.5.2.2 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

[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.

physical harm, and/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 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(A) 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 4.5 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 4.5-1, 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 outside to inside noise attenuation provided by typical building construction in California is provided in **Table 4.5-1, Outside to Inside Noise Attenuation**.

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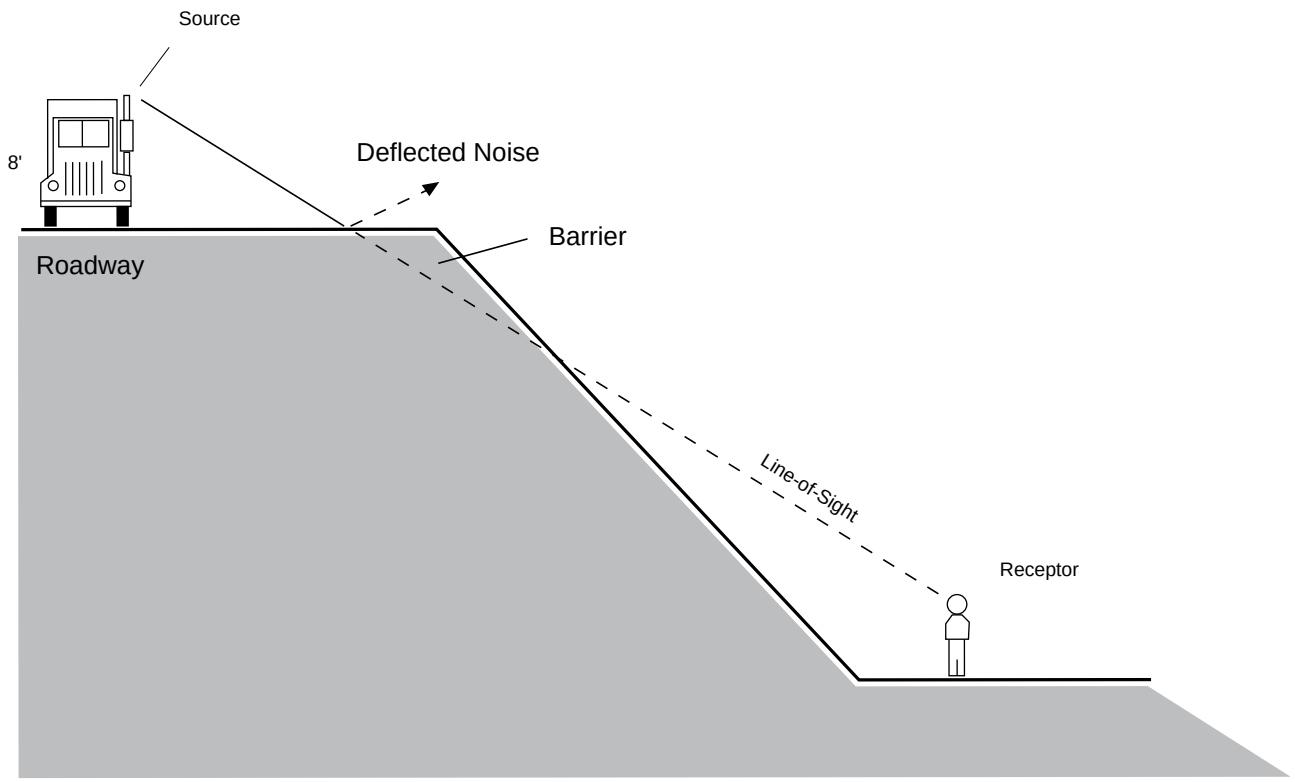
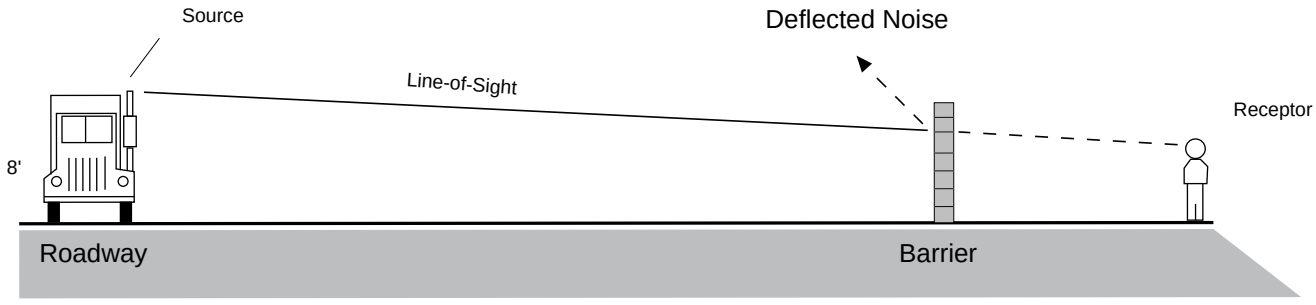
2 Examples of "hard" or reflective sites include asphalt, concrete, and hard and sparsely vegetated soils. Examples of acoustically "soft" or absorptive sites include soft, sand, plowed farmland, grass, crops, heavy ground cover, etc.



"Barrier Effect" Resulting from Differences in Elevation.



"Barrier Effect" Resulting from Typical Soundwall.

SOURCE: Impact Sciences, Inc. – August 2012

FIGURE **4.5-1**

Noise Attenuation by Barriers

Table 4.5-1
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), Maximum Noise Level (Lmax), 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.
- Lmax is the single highest sampled level of sound.
- 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]

[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.

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 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.

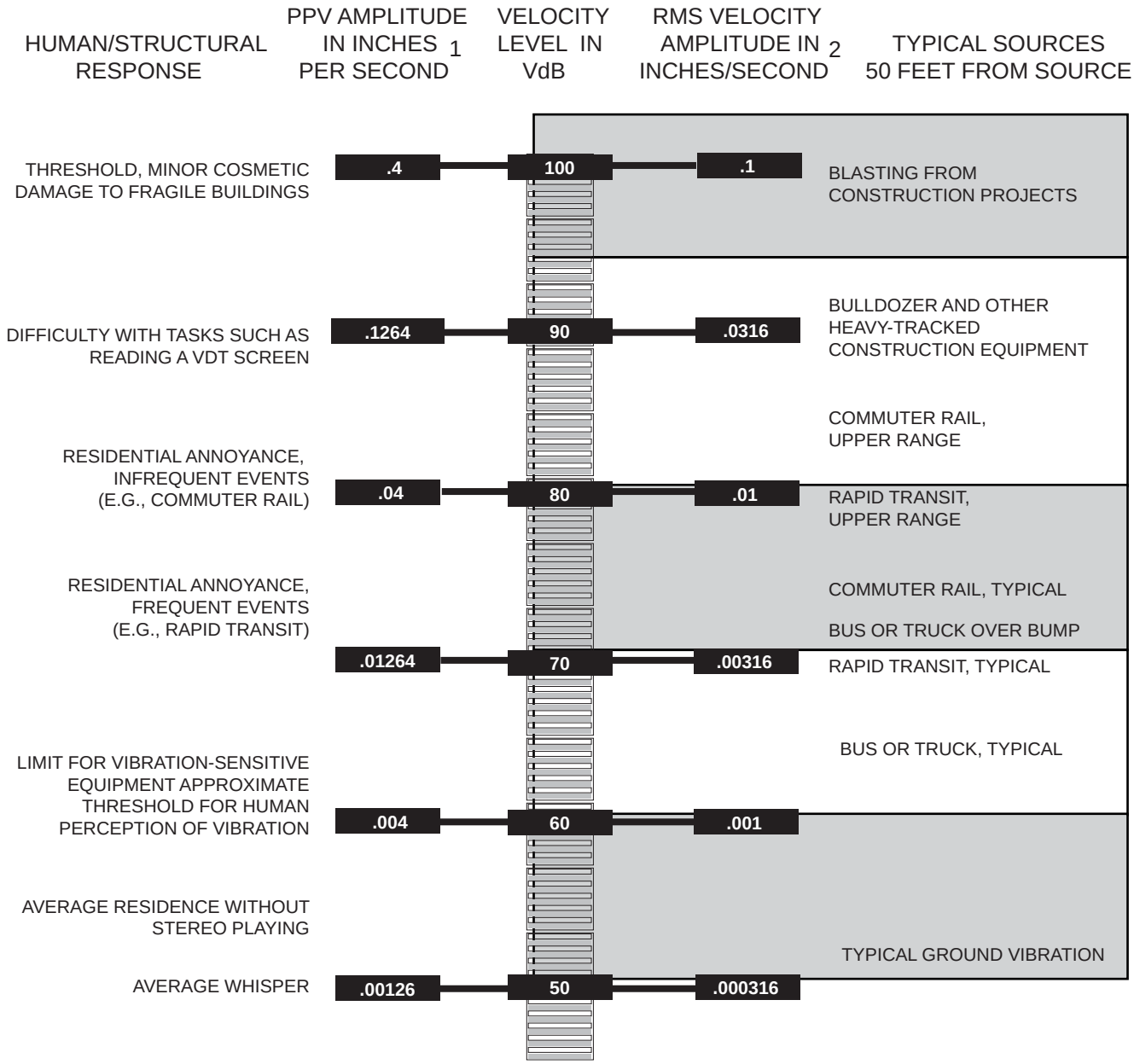
Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is barely perceptible. The range of interest is from approximately 50 VdB, which is typical background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

Figure 4.5-2, Typical Levels of Groundbourne Vibration, identifies the typical groundborne vibration levels in VdB and human response to different levels of vibration.

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

For purposes of this analysis, noise-sensitive receptors include residences, places of worship, schools, hospitals, and academic buildings. Noise-sensitive receptors located close to heavily traveled roadways or other stationary noise sources on the SJCC campus include academic buildings on Moorpark Avenue.

Off-campus sensitive receptors include single-family and multi-family residential uses to the east and south, and single-family residential uses to the north across I-280. Other sensitive receptors in the vicinity of the campus include Immanuel Lutheran Church, Crossroads Bible Church, and Neighborhood Christian Preschool to the east, the Valley Medical Center to the west, and Sherman Oaks Community Charter School to the south.



[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 **4.5-2**

Typical Levels of Groundbourne Vibration

4.5.2.4 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 sirens, pedestrian traffic, and delivery trucks.

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 I-280, Moorpark Avenue, Bascom Avenue, Fruitdale Avenue, and Leigh Avenue. Given that (1) I-280 is separated from the campus by the Moorpark Avenue right-of-way; (2) the I-280 freeway segment immediately adjacent to the campus is depressed by approximately 30 feet; and (3) Bascom Avenue is separated from the campus by commercial uses, the Moorpark Avenue and Leigh Avenue are the two roadways that are considered to be the dominant source of noise on, and in the vicinity of, the campus.

The existing ambient noise levels were estimated for the segments of Moorpark Avenue and Leigh Avenue that are adjacent to the SJCC 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 4.5-2, Existing Roadway Modeled On-Site Noise Levels.** As shown, roadway noise levels range from a low of 63.7 dB(A) CNEL on Leigh Avenue between Moorpark Avenue and Fruitdale Avenue to a high of 68.4 dB(A) CNEL on Moorpark Avenue between Leland Avenue and Leigh Avenue. 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.

Stationary and Area Sources

Stationary and area noise sources include parking lots, mechanical equipment, such as air conditioners, ventilation systems, pool pumps, 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.

Table 4.5-2
Existing Roadway Modeled On-Site Noise Levels

Roadway Segment/Intersection	CNEL at 75 Feet	Distance to Noise Contour [a]		
		70 CNEL	65 CNEL	60 CNEL
Moorpark Ave.				
• Between Bascom Ave, and Leland Ave.	67.9	-- [b]	145	451
• Between Leland Ave. and Leigh Ave.	68.4	-- [b]	162	502
Leigh Ave.				
• Between Moorpark Ave. and Fruitdale Ave.	63.7	-- [b]	-- [b]	175

Source: Impact Sciences. Model results are contained in ***Appendix 4.5****.*

[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.*

Athletic Facilities

Noise levels are also generated periodically by on-site athletic, community activities and fundraising activities, at the existing stadium and athletic facilities in the eastern and southern portions of the campus. The football and track stadium is located in the eastern portion of the campus approximately 100 feet from Leigh Avenue. A total of 25 to 40 events are held in the stadium per year. Noise levels occur from the use of a public address (PA) system, people talking and yelling, occasional school bands, referees' whistles, etc. Based on a study of a comparable stadium in Southern California, background noise levels preceding a football game averaged 55 to 60 dB(A) just outside of the stadium. During the game, noise levels averaged 60 to 65 dB(A) when the PA system was not in use, 65 to 75 dB(A) during the use of PA equipment, and 70 to 75 dB(A) during the playing of amplified music. Instantaneous noise events of up to 80 dB(A) are expected due to the blowing of whistles (SJECCD 2010).

A multi-use athletic field is located in the southeastern corner of the campus adjacent to Leigh Avenue. The field is used for Physical Education classes during the day, late afternoon soccer practice by youth leagues on Monday through Friday, and weekend youth soccer league games. Peak hour noise levels associated with this type of facility range from 44 dB to 53 dB Leq at 100 feet, while 24-hour noise levels associated with this type of facility range from 39 dB to 48 dB DNL at 100 feet (SJECCD 2010).

Construction Activity

Construction traffic and equipment operation at construction sites temporarily elevates noise levels at the project site and in the vicinity of construction activities. Construction noise is typically most noticeable in quieter residential areas that are close 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.

4.5.2.5 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 10, 2012 during the PM peak hours of 4:00 PM to 6:00 PM. These locations are identified on **Figure 4.5-3, Noise Monitoring Locations**. Average noise levels were 70.9 dB(A) Leq at Location 1 (Moorpark Avenue/Lehigh Avenue intersection, near the Immanuel Lutheran Church), 68.1 dB(A) Leq at Location 2 (230 feet north of the Lehigh Avenue/Kingman Avenue intersection), 65.1 dB(A) Leq at Location 3 (Kingman Avenue/Mansfield Drive Intersection, south of Parking Lot E), 63.9 dB(A) Leq at Location 4 (Parking Lot E), 71.0 dB(A) Leq at Location 5 (Central Green), and 68.9 dB(A) Leq at Location 6 (Theater Building).

4.5.2.6 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 4.5-3, Vibration Levels for Construction Equipment**, identifies various vibration velocity levels for the types of construction equipment that is used on the campus.

Table 4.5-3
Vibration Levels for Construction Equipment

	Approximate VdB			
Equipment	**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 that transport materials to and from the construction sites within the campus typically generate groundborne vibration velocity levels of around 63 VdB. These levels could reach 72 VdB where trucks pass over bumps in the road.

4.5.3 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.

4.5.3.1 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.

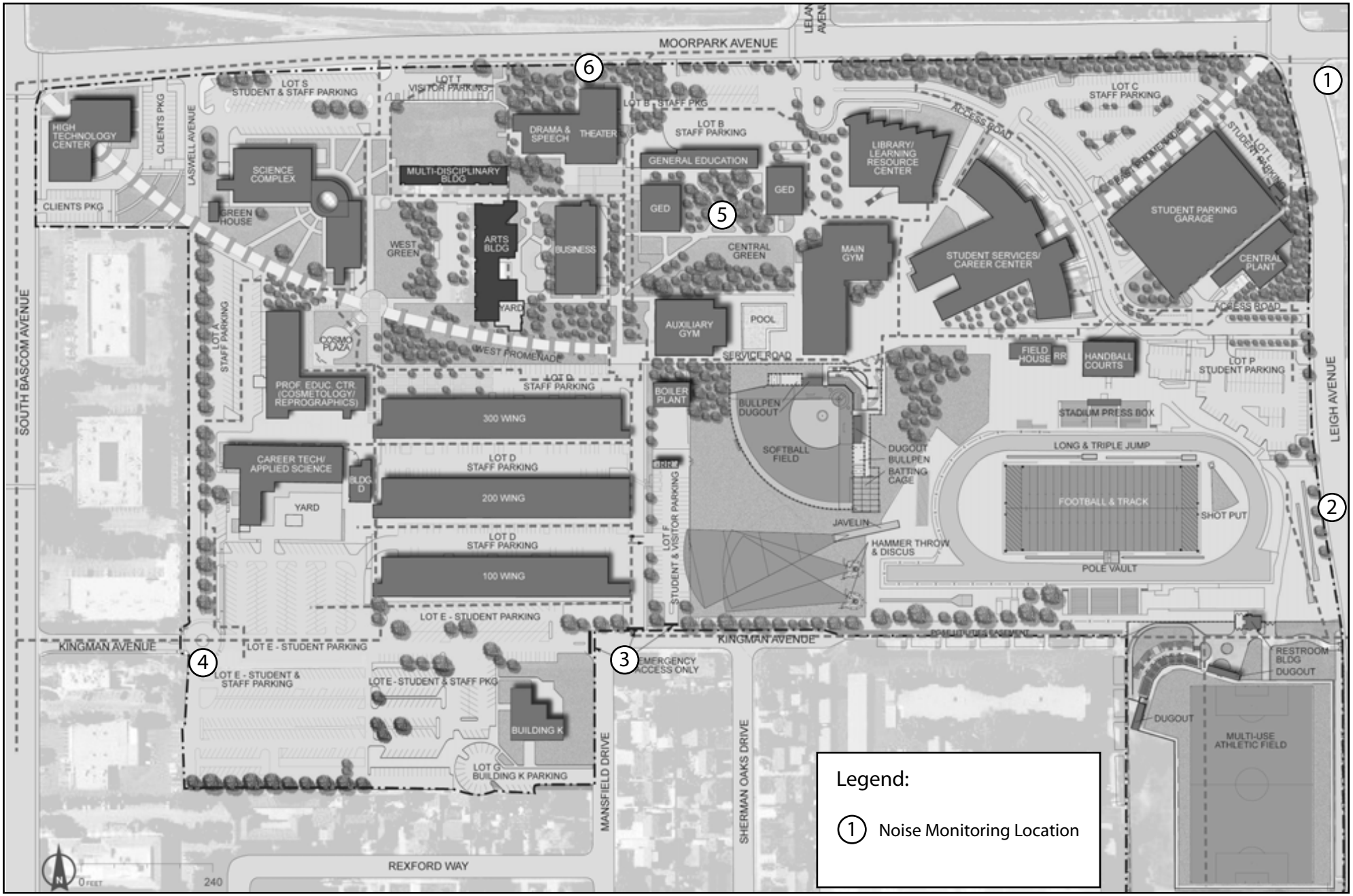
The Department of Housing and Urban Development (HUD) standards define Ldn levels below 65 dB(A) outdoors as acceptable for residential use. Outdoor levels up to 75 dB(A) Ldn may be made acceptable through the use of insulation in buildings.

4.5.3.2 State

Title 24 of the California Code of Regulations codifies Sound Transmission Control requirements, which establish 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 4.5-4, 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

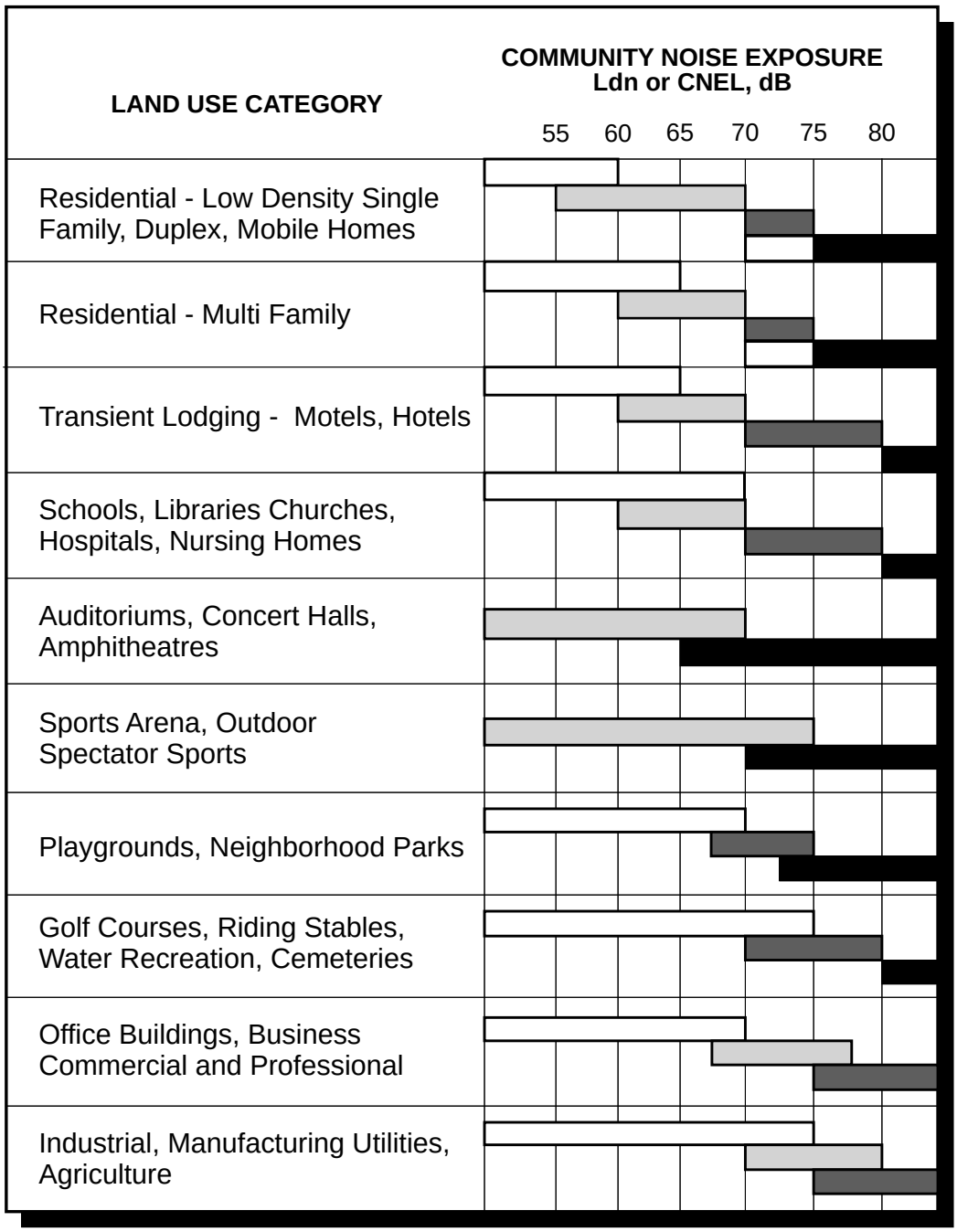


SOURCE: SJCC 2025 Facilities Master Plan – November 2011

FIGURE **4.5-3**

Noise Monitoring Locations

461-03•08/12



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 **4.5-4**

Land Use Compatibility for Community Noise Environments

"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.

4.5.3.3 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 SJCC campus, they are summarized below and used in part as the basis for determining the significance of noise-related impacts.

Envision San José 2040 General Plan

The Envision San José 2040 General Plan 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 4.5-5, City of San José Noise Compatibility Guidelines**, the exterior DNL goal in the General Plan for residential uses is 60 dB(A) DNL (City of San José 2011).

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.

4.5.4 IMPACTS AND MITIGATION MEASURES

4.5.4.1 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;

LAND USE CATEGORY	EXTERIOR NOISE EXPOSURE (DNL IN DECIBELS (DBA)) 55	60	65	70	75	80
1. Residential, Hotels and Motels, Hospitals and Residential Care[1]						
2. Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
3. Schools, Libraries, Museums, Meeting Halls, Churches						
4. Office Buildings, Business Commercial, and Professional Offices						
5. Sports Arena, Outdoor Spectator Sports						
6. Public and Quasi-Public Auditoriums, Concert Halls, Amphitheaters						

[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 **4.5-5**

City of San Jose Land Use Compatibility Guidelines

- 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:

On-Site Thresholds

According to the State Land Use Compatibility Guidelines for Noise (discussed above), exterior noise levels up to 70 dB(A) CNEL are "normally acceptable" for school uses. 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 4.8-5**, 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. As such, the City's noise compatibility guidelines were used to evaluate impacts to off-site noise-sensitive uses, which include single-family and multi-family residences, churches, schools, and a hospital. 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 5 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 less than a 0.7 dB difference (Caltrans 1983).

Changes in noise levels of less than 3 dB(A) are typically not noticed by the human ear. Changes from 3 to 5 dB(A) may be noticed by some individuals who are sensitive to changes in noise. A 5 dB(A) increase is readily noticeable. Based on this information, the following thresholds were used in this EIR to evaluate the significance of the project-related noise increases:

- 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).

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

4.5.4.3 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 landscape 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 2006). This model calculates the average noise levels 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 used in this modeling. Noise modeling assumed a soft ground surface and did not take into account any shielding from barriers, structures, or terrain. 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 trips (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.

4.5.4.4 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. As noted in **Subsection 4.5.2.4**, above, principal vehicular traffic

routes near the campus include I-280, Moorpark Avenue, Bascom Avenue, Fruitdale Avenue, and Leigh Avenue. The section of I-280 adjacent to the campus is separated from the campus by the Moorpark Avenue right-of-way and the freeway road surface is approximately 30 feet below the elevation of the campus and surrounding area. As a result, the campus facilities are not exposed to significant freeway noise. Furthermore, no new buildings are proposed along the south side of Moorpark Avenue under the 2025 Updated FMP and therefore implementation of the 2025 Updated FMP would not expose campus receptors to excessive freeway noise.

In addition, as stated in **Subsection 4.5.2.4**, traffic on Bascom Avenue would not affect campus receptors because that roadway is separated from the campus by commercial buildings that provide shielding from roadway noise. The Moorpark Avenue and Leigh Avenue roadways are the dominant source of noise on and in the vicinity of the campus, and these two roadways were therefore evaluated for changes in noise levels due to increases in project-related traffic. **Table 4.5-4, 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 4.5-4
2025 Plus Project Roadway Modeled On-Site Noise Levels

Roadway Segment	CNEL at 75 Feet	Distance to Noise Contour [a] 70 dB(A) CNEL	65 dB(A) CNEL	60 dB(A) CNEL
Moorpark Ave.				
• Between Bascom Ave, and Leland Ave.	68.7	-- [b]	172	535
• Between Leland Ave. and Leigh Ave.	69.0	-- [b]	187	583
Leigh Ave.				
• Between Moorpark Ave. and Fruitdale Ave.	64.3	-- [b]	-- [b]	198

*Source: Impact Sciences. Model results are contained in **Appendix 4.5**.*

[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 4.5-4**, the 70 dB(A) contour from Moorpark Avenue or Leigh Avenue does not extend onto any part of the campus. Furthermore, nearly all of the existing and new academic buildings such as the General Education, Vo-tech, Performing Arts buildings are located in the interior of the campus at considerable distances from these 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, given the 2010 Sunnyvale West ruling, such an analysis was conducted that evaluated the impact associated with increases in average daily noise levels under existing plus project conditions. As this is an unrealistic scenario for the proposed project, this analysis is below for informational purposes only.

Table 4.5-5, Existing Plus Project Roadway Modeled On-Site Noise Levels, presents the modeled average daily noise levels associated with traffic on Moorpark Avenue and Leigh Avenue under existing plus project conditions.

Table 4.5-5
Existing Plus Project Roadway Modeled On-Site Noise Levels

Roadway Segment	CNEL at 75 Feet	Distance to Noise Contour [a]		
		70 dB(A) CNEL	65 dB(A) CNEL	60 dB(A) CNEL
Moorpark Ave.				
• Between Bascom Ave, and Leland Ave.	68.1	-- [b]	151	470
• Between Leland Ave. and Leigh Ave.	68.7	-- [b]	173	538
Leigh Ave.				
• Between Moorpark Ave. and Fruitdale Ave.	64.1	-- [b]	-- [b]	191

*Source: Impact Sciences. Model results are contained in **Appendix 4.5**.*

[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 4.5-5**, the 70 dB(A) contour from Moorpark Avenue or Leigh Avenue does not extend onto any part of the campus under existing conditions. Furthermore, as under 2025 conditions, nearly all of the existing and new academic buildings such as the General Education, Vo-tech, Performing Arts buildings are located in the interior of the campus at considerable distances from these roadways. Therefore, none of the academic buildings on the 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 values. 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 as a standard practice 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, and none of the academic buildings on the campus would be subject to exterior noise levels exceeding the state standard of 70 dB(A) CNEL for schools.

Based on the above, implementation of the 2025 Updated FMP would not result in the exposure of persons on campus to 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, but the traffic would not cause a substantial permanent increase in noise levels at on- or 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 presented in **Table 4.5-6, Operational Roadway Noise Levels – 2025 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 (including the traffic associated with the proposed project) would, in the majority of locations, increase noise levels by less than 1 decibel, which is inaudible or imperceptible to most people. At two of the modeled locations, the increases would be on the order of 1.8 and 2.1 decibels, which are also well below 3 decibels, the threshold at which noise changes become perceptible to most people and the threshold used in this EIR to evaluate the significance of the noise impact at locations where the noise levels are above 60 dB(A) DNL. In addition, campus development would not by itself generate enough traffic to cause increases in noise levels above the City's 3 dB(A) or greater standards.

Table 4.5-6
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
Bascom Ave., north of San Carlos St.	67.0	67.3	0.3	0.0	No	No
Bascom Ave., between San Carlos St. and Parkmoor Ave.	69.1	69.7	0.6	0.1	No	No
Bascom Ave., between Parkmoor Ave. and Moorpark Ave.	69.9	70.6	0.7	0.1	No	No
Bascom Ave., between Moorpark Ave. and Renova Dr.	69.7	70.3	0.6	0.0	No	No
Bascom Ave., between Renova Dr. and SJCC Driveway	69.6	70.0	0.4	0.0	No	No
Bascom Ave., between SJCC Driveway and Fruitdale Ave.	69.6	70.0	0.4	0.1	No	No
Bascom Ave., south of Fruitdale Ave.	67.3	67.7	0.4	0.0	No	No
Leland Ave., north of Parkmoor Ave.	52.4	52.4	0.0	0.0	No	No
Leland Ave., between Parkmoor Ave. and Moorpark Ave.	56.4	57.2	0.8	0.1	No	No
Sherman Oaks Dr., north of Fruitdale Ave.	45.7	45.7	0.0	0.0	No	No
Leigh Ave., between San Carlos St. and Scott St.	57.3	58.0	0.7	0.1	No	No
Leigh Ave., between Scott St. and Parkmoor Ave.	58.1	58.4	0.3	0.1	No	No
Leigh Ave., between Parkmoor Ave. and Moorpark Ave.	63.6	64.1	0.5	0.3	No	No
Leigh Ave., between Moorpark Ave. and Fruitdale Ave.	63.7	64.3	0.6	0.4	No	No
Leigh Ave., south of Fruitdale Ave.	60.1	60.3	0.2	0.0	No	No
San Carlos St., west of Bascom Ave.	63.7	64.3	0.6	0.0	No	No
San Carlos St., between Bascom Ave. and Leigh Ave.	66.0	66.7	0.7	0.0	No	No
San Carlos St., east of Leigh Ave.	63.4	64.2	0.8	0.0	No	No
Scott St., west of Leigh Ave.	53.5	53.6	0.1	0.0	No	No
Scott St., east of Leigh Ave.	52.0	52.2	0.2	0.0	No	No
Parkmoor Ave., west of Bascom Ave.	52.5	52.5	0.0	0.0	No	No
Parkmoor Ave., between Bascom Ave. and Leland Ave.	65.2	65.9	0.7	0.1	No	No
Parkmoor Ave., between Leland Ave. and Leigh Ave.	64.8	65.4	0.6	0.2	No	No
Moorpark Ave., west of Bascom Ave.	62.6	63.4	0.8	0.0	No	No
Moorpark Ave., between Bascom Ave. and Leland Ave.	67.9	68.7	0.8	0.2	No	No

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
Moorpark Ave., between Leland Ave. and Leigh Ave.	68.4	69.0	0.6	0.3	No	No
Moorpark Ave., east of Leigh Ave.	67.7	68.3	0.6	0.1	No	No
Renova Dr., west of Bascom Ave.	53.6	55.7	2.1	0.0	No	No
SJCC Driveway., east of Bascom Ave.	54.3	54.8	0.5	0.5	No	No
Enborg Ln., west of Bascom Ave.	56.3	57.1	0.8	0.0	No	No
Fruitdale Ave., between Bascom Ave. and Sherman Oaks Dr.	64.6	64.8	0.2	0.1	No	No
Fruitdale Ave., between Sherman Oaks Dr. and Leigh Ave.	64.8	65.0	0.2	0.1	No	No
Fruitdale Ave., between Leigh Ave. and SW Expwy.	63.2	63.4	0.2	0.1	No	No
Fruitdale Ave., east of SW Expwy.	60.3	62.1	1.8	0.0	No	No

Source: Impact Sciences. Model results are contained in ***Appendix 4.2****.*

As explained under **Impact NOI-1**, the analysis of environmental impacts in this EIR is focused on 2025 conditions because that year is assumed to be the year by which the campus would be fully build out under the 2025 Updated FMP. 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 4.5-7, 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.

Because the roadway noise levels at all on- and off-campus locations would increase by less than 3 dB(A), campus development under the 2025 Updated FMP would not cause a substantial permanent increase in ambient noise levels on- or off-campus due to increased local traffic volumes under both existing and 2025 conditions. This impact is considered less than significant.

Mitigation Measure: No mitigation is required.

Table 4.5-7
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
Bascom Ave., north of San Carlos St.	67.0	67.0	0.0	No
Bascom Ave., between San Carlos St. and Parkmoor Ave.	69.1	69.1	0.0	No
Bascom Ave., between Parkmoor Ave. and Moorpark Ave.	69.9	70.0	0.1	No
Bascom Ave., between Moorpark Ave. and Renova Dr.	69.7	69.7	0.0	No
Bascom Ave., between Renova Dr. and SJCC Drway	69.6	69.7	0.1	No
Bascom Ave., between SJCC Drwy. and Fruitdale Ave.	69.6	69.7	0.1	No
Bascom Ave., south of Fruitdale Ave.	67.3	67.3	0.0	No
Leland Ave., north of Parkmore Ave.	52.4	52.4	0.0	No
Leland Ave., between Parkmore Ave. and Moorpark Ave.	56.4	56.5	0.1	No
Sherman Oaks Dr., north of Fruitdale Ave.	45.7	45.7	0.0	No
Leigh Ave., between San Carlos St. and Scott St.	57.3	57.4	0.1	No
Leigh Ave., between Scott St. and Parkmoor Ave.	58.1	58.2	0.1	No
Leigh Ave., between Parkmoor Ave. and Moorpark Ave.	63.6	63.9	0.3	No
Leigh Ave., between Moorpark Ave. and Fruitdale Ave.	63.7	64.1	0.4	No
Leigh Ave., south of Fruitdale Ave.	60.1	60.1	0.0	No
San Carlos St., west of Bascom Ave.	63.7	63.8	0.1	No
San Carlos St., between Bascom Ave. and Leigh Ave.	66.0	66.0	0.0	No
San Carlos St., east of Leigh Ave.	63.4	63.4	0.0	No
Scott St., west of Leigh Ave.	53.5	53.5	0.0	No
Scott St., east of Leigh Ave.	52.0	52.0	0.0	No
Parkmoor Ave., west of Bascom Ave.	52.5	52.5	0.0	No
Parkmoor Ave., between Bascom Ave. and Leland Ave.	65.2	65.3	0.1	No
Parkmoor Ave., between Leland Ave. and Leigh Ave.	64.8	64.9	0.1	No
Moorpark Ave., west of Bascom Ave.	62.6	62.6	0.0	No
Moorpark Ave., between Bascom Ave. and Leland Ave.	67.9	68.1	0.2	No
Moorpark Ave., between Leland Ave. and Leigh Ave.	68.4	68.7	0.3	No
Moorpark Ave., east of Leigh Ave.	67.7	67.8	0.1	No
Renova Dr., west of Bascom Ave.	53.6	53.6	0.0	No
SJCC Drwy., east of Bascom Ave.	54.3	54.8	0.5	No
Enborg Ln., west of Bascom Ave.	56.3	56.3	0.0	No
Fruitdale Ave., between Bascom Ave. and Sherman Oaks Dr.	64.6	64.6	0.0	No
Fruitdale Ave., between Sherman Oaks Dr. and Leigh Ave.	64.8	64.9	0.1	No
Fruitdale Ave., between Leigh Ave. and SW Expwy.	63.2	63.3	0.1	No
Fruitdale Ave., east of SW Expwy.	60.3	60.3	0.0	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 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 General Education building, Vo-Tech building and Performing Arts Center would be located in the west central portion of the campus, while a new Physical Education Complex consisting of a main gymnasium, a fitness center, and an aquatics facility would be located in the east central portion of the campus. A new parking lot (New Parking Lot A) would also be located in the southwest portion of the campus south of the proposed Performing Arts Center.

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 300 feet to the south across Kingman Avenue and about 250 feet to the east across Lehigh Avenue. 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 uses.

Concerning the new parking lot, typical parking lot noise includes car doors closing, engines starting, and acceleration. Other occasional noises include tire squeal noise, loud stereos, and car alarms. Off-site sensitive uses that would be most affected by the new parking lot would be residential uses south of Kingman Avenue between Sherman Oaks Drive and Mansfield Drive. These residences are located approximately 50 feet from the edge of the proposed parking lot. Under the 2025 Updated FMP, the area covered by the 100 Wing, Parking Lots D and E, and a portion of Parking Lot F would be consolidated to provide space for the new parking lot. Residential uses south of Kingman Avenue between Sherman Oaks Drive and Mansfield Drive are already exposed to noise generated by Parking Lots E and F and the noise generated by the new parking lot would be of a similar type and frequency. Therefore, the change in ambient noise would not be substantial. In addition, **Mitigation Measure MM AES-2b** (discussed in **Section 4.1, Aesthetics**) would provide a landscape buffer between New Parking Lot A and nearby properties that would further attenuate noise generated on the lot.

The 2025 Updated FMP proposes no changes to the football stadium on the campus. Therefore, the operation of the facility would continue as described above in **Subsection 4.5.2.4**, and the noise levels generated at the stadium would remain the same as they are at the present time when the stadium is in use. Implementation of the 2025 Updated FMP could potentially increase the use of the multi-use athletic field during the weekdays. The types of noise generated on the field would be the same, 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 residences across the street from the field on Lehigh Drive due to an increase in noise on the field 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 field would not be substantial. Activity occurring on the multi-use athletic field during the weekends would not change under the 2025 Updated FMP as the number of community users would not change. Finally, with the exception of the aquatics facility, all of the uses associated with the new Physical Education Complex would occur indoors. The proposed aquatics facility would be located approximately 250 feet from residences on the east side of Leigh Avenue and its use by the campus population is unlikely to generate noise levels that would substantially increase noise levels at the residences on Leigh Avenue due to the nature of the use, the intervening distance, and the presence of a busy roadway between these residences and the campus.

Project implementation will cause a relocation of some loading docks or trash enclosures, service truck traffic routes or trash collection points. The number of service trucks for the General Education, Vo-Tech, Performing Arts buildings, and Physical Education complex will be minimal. These buildings will not have loading docks for large delivery trucks. Trash bins for these buildings will be within the campus interior and shielded by surrounding buildings. Trash pick-up noise during the raising, lowering and compaction process lasts less than 2 minutes. Reported peak noise levels during this process are 85 dB(A) (Lmax) at 50 feet from the operation. For 1 minute of peak noise and 1 minute of truck idle at 70 dB(A), the hourly average noise level for this operation is 67 dB(A) Leq, or 53 dB(A) CNEL/DNL (SJECCD 2010). Even at 50 feet from the trash enclosure, noise from trash collection would not exceed the City of San Jose exterior noise standard for residential and institutional uses of 60 dB(A) DNL.

For the reasons listed above, stationary and area noise sources 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, although, due to the campus's location with respect to I-280, construction trucks traveling to and from the campus site would not travel past a large number of sensitive receptors and are unlikely to substantially elevate traffic noise levels along local surface 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 4.5-8, 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.

Table 4.5-8
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.

Noise generated by construction is anticipated to be the greatest during demolition and site 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 the receptor, and shielding by buildings or terrain often results in much lower construction noise levels at distant receptors.

On-site noise-sensitive uses include academic buildings, including both existing buildings and new buildings such as the General Education, Vo-tech, Performing Arts buildings that would be located close to areas where demolition or 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 the campus to elevated noise levels. This represents a potentially significant impact.

The closest off-campus noise-sensitive receptors to the campus include single-family and multi-family residences located to the east and south of the campus. Additional sensitive receptors within the vicinity of the campus include Immanuel Lutheran Church, Crossroads Bible Church, and Neighborhood Christian Preschool to the east, the Valley Medical Center to the west, and the Sherman Oaks Community Charter School to the south. Although residences are located north of I-280, approximately 600 feet from the campus northern boundary, it is expected that existing traffic noise along Moorpark Avenue and I-280 would mask and intervening structures would attenuate the noise generated during the construction of campus facilities. The Valley Medical Center to the west is across Bascom Avenue, about 400 feet from the campus western boundary. Given this setback and the presence of intervening commercial buildings between the campus and Bascom Avenue, it is expected that construction noise generated during development of proposed facilities in the western part of the campus would be masked by traffic and attenuated by 5 to 10 dB(A) by distance and intervening structures.

With respect to the campus's eastern and southern boundaries, existing residences are located adjacent to the southern border of the campus and the Immanuel Lutheran Church, Crossroads Bible Church,

Neighborhood Christian School, and residences are located along the eastern border of the campus on the opposite side of Leigh Avenue. The Sherman Oaks Community Charter School is located approximately 500 feet to the south of the campus at the southwest intersection of Fruitdale Avenue and Leigh Avenue. With the exception of this school, which is too distant to be affected, construction noise generated during the demolition of existing buildings in the southern and eastern portions of the campus and the construction of new buildings in the central portions of the campus, as well as parking lots and roadway improvements in the southern portion of the campus, could result in temporary construction noise impacts to these nearby sensitive uses. 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 residential uses and churches.

Construction activities (reconfiguration of Parking Lot E, demolition of the 100 Wing, construction of Parking Lot A, and paving of roadway along the Kingman Avenue alignment) near the southern boundary of the campus would be located approximately 50 to 100 feet from existing residential uses, while construction activities (demolition of the field house and handball courts and construction of the Physical Education Complex) near the eastern boundary of the campus would be located about 240 feet from existing residential uses. At these distances, residences south of the campus would experience noise levels of up to 90 dB(A) during grading activities, while residences to the east of the campus would experience noise levels of up to 77 dB(A). In addition, construction requiring pile driving could occur approximately 300 feet from residences along the southern boundary, while construction requiring pile driving could occur about 200 feet from existing residential uses along the eastern boundary of the campus. At these distances, residences south of the campus would experience noise levels of up to 92 dB(A) during pile driving, while residences to the east of the campus would experience noise levels of up to 95 dB(A). The Immanuel Lutheran Church, Crossroads Bible Church, and Neighborhood Christian School are located more than 500 feet from planned construction near the eastern boundary of the campus and would experience noise levels up to 69 dB(A) during grading activities and 95 dB(A) during building construction activities (i.e., pile driving). 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 to the east and south of the SJCC campus. If construction were to occur simultaneously on both the west central and east central portions of the campus, noise from both locations would negatively affect sensitive receptors to the south. This represents a potentially significant impact. However, the noise would be temporary and would only impact single-family and multi-family uses that are located immediately adjacent to the southern edge of the campus. Noise generated by construction activity simultaneously occurring on both the west central

and east central portions of campus would not negatively affect sensitive receptors to the east, as construction in the west central portion of the campus (the General Education building, Vo-Tech building, and Performing Arts Center) would be located at least 1,200 feet from these uses.

The Campus would implement several mitigation measures that would minimize construction noise impacts to on-campus locations and off-site sensitive receptors. **Mitigation Measure MM NOI-4a** is proposed to limit construction to the daytime period. **Mitigation Measure MM NOI-4b** is proposed to further reduce significant noise impacts from construction activities. These measures are more comprehensive than measures currently implemented by the campus to minimize construction noise to on-campus locations and off-site sensitive receptors.

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.

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 that 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 a week before 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 the campus to excessive groundborne vibrations, 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 operate on the campus during demolition and construction were previously identified in **Table 4.5-3**. Demolition and construction activities would primarily affect occupants of existing buildings within the campus. Construction sites could sometimes be as close as 25 feet to these buildings 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 4.5-3**, 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 the 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 not involving pile driving occurs 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, as described above, single-family and multi-family residential uses are located to the east and south of the campus, and single-family residential uses are located to the north

across I-280. Other sensitive receptors in the vicinity of the campus include Immanuel Lutheran Church, Crossroads Bible Church, and Neighborhood Christian Preschool to the east, the Valley Medical Center to the west, and the Sherman Oaks Community Charter School to the south. With the exception of the single-family and multi-family residential uses to the south, all of these uses are located far enough away from the campus as to not be negatively affected by demolition and construction activity on campus including pile driving. Single-family and multi-family residential uses to the south are located about 50 feet from the nearest potential construction site. The nearest construction activity involving pile driving would be at 300 feet away from these residential uses. As a result, these residential uses would not be negatively affected by construction activities on the campus involving pile driving. Based on the information presented in **Table 4.5-3**, vibration levels from on-campus demolition and construction activities would be 81 VdB or less at sensitive uses located along the southern boundary of the project site, which is slightly above the threshold of 80 VdB for residential uses. However, the vibrations would be of limited duration and would be experienced only at the first row of homes immediately south of the campus. Furthermore, in compliance with **Mitigation Measure MM NOI-4a**, construction activities on the campus would be restricted to 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. 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.

Heavy trucks would 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 truck traffic 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 reduce construction vibration impacts to on-campus locations. **Mitigation Measure MM NOI-5** is proposed to limit construction close to classroom buildings to weekends or during periods when instruction is not occurring on the campus when feasible.

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.

4.5.4.4 Cumulative Impacts and Mitigation Measures

To determine 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 below the City's 3 dB(A) or greater standard. The cumulative traffic noise impact was determined to be less than significant.

With respect to cumulative construction noise and vibration impacts, those would occur if projects proposed by others were to be under construction at the same time as projects on the SJCC campus and if these concurrent projects would be close to the same sensitive receptor. The area around the campus is relatively built out and at this time there are no other projects proposed that would be under construction the same time as the projects on the campus. No cumulative impact would occur.

Similarly, in order for the on-site stationary and area 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 and area noise sources, the noise sources would need to be close to the same sensitive receptor or receptors. At this time, there are no other projects proposed that would be in the vicinity of the same sensitive receptors as the projects on the campus. No cumulative impact would occur.

4.5.5 REFERENCES

Barry, T. M. and J. A. Reagan. 1978. *FHWA Highway Traffic Noise Prediction Model*. US Department of Transportation, Federal Highway Administration, Office of Research, Office of Environmental Policy. (NTIS, FHWA-RD-77-108). Washington, D.C.

California Department of Health, 1976; revised 1987. *Guidelines for the Preparation and Content of Noise Elements of the General Plan.*

California Department of Transportation (Caltrans), 1983. *Airport Land Use Planning Book.* July.

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

City of San José. *San José Municipal Code, Title 20*

Fehr & Peers. 2012. San José City College Facilities Master Plan: Draft Transportation Impact Analysis. January

San José/Evergreen Community College District (SJECCD). 2010. Final Subsequent Environmental Impact Report for the San José City College Facilities Master Plan Update 2011. Prepared by Mass Companies, Inc.

Transportation Research Board, National Research Council. 1971. Highway Noise: A Design Guide for Highway Engineers, National Cooperative Highway Research Program Report 117.

US Department of Transportation, Federal Highway Administration. 1980a. *Highway Noise Fundamentals*, Springfield, Virginia.

US Department of Transportation, Federal Highway Administration. 1980b. *Highway Noise Mitigation.* Springfield, Virginia.

US Department of Transportation, Federal Highway Administration. 2006. *FHWA Highway Construction Noise Handbook.* Washington, DC.

US Department of Transportation, Federal Railroad Administration. 2005. *High-Speed Ground Transportation Noise and Vibration Impact Assessment.*

US Environmental Protection Agency, Office of Noise Abatement and Control. 1974. *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.*

4.6 PUBLIC SERVICES

4.6.1 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 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.

Public and agency comments related to recreational facilities received in response to the Notice of Preparation (NOP) issued for this EIR requested that the EIR should discuss whether recreation facilities are included in the FMP and potential impacts to recreation.

The potential physical impacts of the recreational facilities 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, 4.3 Greenhouse Gas Emissions, 4.4, Land Use and Planning,** and **4.5, Noise**.

4.6.2 ENVIRONMENTAL SETTING

4.6.2.1 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 SJCC 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 54.5-acre campus.

4.6.2.2 Fire Protection

The SJFD provides fire protection services to the City of San José, including the SJCC 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 2012).

SJFD Station No. 4 is the primary response unit for the campus, and responds to all campus fire- and rescue-related emergencies. Station No. 4 is located across the street from the eastern edge of the campus at 710 Leigh Avenue. The station has one engine company (equipped with a fire hose and staffed with four persons) and one truck company (equipped with rescue equipment and staffed with five persons).

The secondary responder for calls from the campus is Station No. 10 at 511 South Monroe Street, west of Highway 17. Station No. 6, south of the campus at 1386 Cherry Avenue, is the tertiary responder.

In fiscal year 2007-2008, the SJFD responded to approximately 52,400 calls for service within its service area. Of that 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. 4 had about 2,450 calls for service in fiscal year 2007-2008. Of that total, 84 percent were medical calls, 7 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).

4.6.2.3 Police Services

Police services are provided to the SJCC campus by the SJECCD Police Department. The SJECCD Police Department provides police services to both the SJCC campus and the Evergreen Valley College (EVC) campus through on-site campus police stations. A Memorandum of Understanding 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 SJCC campus is patrolled by a single patrol officer during the following hours: - 7:00 AM to 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 in progress (Aguirre 2012a).

The existing SJCC campus police station is located in the Student Center in the northeastern portion of the campus. The station is open Monday through Saturday from 7:00 AM to 3:00 PM. It is staffed by a radio dispatcher and other police personnel. A call box located outside the campus police station connects directly to the dispatcher at the EVC campus police station. The radio dispatcher at the EVC campus police answers calls for both campuses between 3:00 PM and 11:00 PM, Monday through Saturday and from 7:00 AM to 3:00 PM on Sundays (Aguirre 2012a).

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 2012a).

The SJECCD Police Department does not have a formal response time goal or utilize other criteria to determine service impacts associated with new development. Response times at the SJCC 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 20-30 minutes of the incident being reported (Aguirre 2012a).

4.6.3 REGULATORY SETTING

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.

4.6.4 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 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,
  - parks, and
  - schools.
- 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; or

- include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

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.

- 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, facility, and staff associated with the 2025 Updated FMP would likely be living in the surrounding communities or 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. The closest neighborhood parks are located approximately 1 mile from the campus. As a result, it is unlikely that students, faculty, and staff would use these facilities. In addition, existing recreation facilities located on the campus and future recreation facilities identified in the 2025 Updated FMP would be available to meet the recreational needs of the campus population. Therefore, 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 1 mile from the campus.

Given the campus library and other resources on the campus, it is unlikely that students, faculty, and staff would utilize this off-campus facility. For these reasons, the impact on 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 distance of neighborhood parks from the campus, the presence of existing recreational facilities on the campus, and the construction of future 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.

Other than the demolition of the existing pool, the 2025 FMP proposes no changes to the on-campus sports facilities including the softball field, football/track field, and multi-use field. The plan includes a variety of improvements to open space areas on the campus including improved plazas and renovations to the campus gym as well as the construction of a new Physical Education Complex. The potential physical impacts of demolishing the existing pool and constructing the recreational 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, 4.3, Greenhouse Gas Emissions, 4.4, Land Use and Planning,** and **4.5, Noise** of this Draft EIR.

4.6.4.3 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 to be significant if a project would require new or expanded service facilities that would result in significant environmental impacts.

4.6.4.4 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 SJCC campus currently receives fire protection and emergency medical services from the SJFD. Implementation of the 2025 Updated FMP would result in the addition of up to approximately 2,670 students to the campus. The incremental increase in the campus population would likely result in additional calls for service, with the potential for 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 SJCC campus would be less than significant.

Mitigation Measure: No mitigation is required.

Impact PUB-2: **Implementation of the 2025 Updated FMP would not require the construction of new or physically altered law enforcement facilities, which could cause significant environmental impacts.**

Level of Significance: Less than significant

Law enforcement services on the SJCC campus are primarily provided by the SJECCD Police Department and the SJPD provides additional service to the campus under an existing Memorandum of Understanding (MOU). As noted above, implementation of the 2025 Updated FMP would result in up to approximately 2,670 additional students on campus. The incremental increase in the campus population may result in additional calls for service, potentially increasing response times. To maintain adequate response times, additional personnel and equipment may be required. However, according to the SJECCD Police Department, the need for new police facilities on the SJCC campus to house additional equipment and personnel is not anticipated at this time (Aguirre 2012b). No new facilities are needed, and therefore there would be no significant environmental impacts.

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 SJCC 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 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, it is expected that the SJECCD Police Department and SJPD would be able to provide adequate law enforcement services from existing facilities. However, if an expansion of facilities is required, the expansion is unlikely to result in significant environmental impacts. The impact related to law enforcement would be less than significant.

Mitigation Measure: No mitigation is required.

4.6.4.4 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 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.

4.6.5 REFERENCES

Aguirre, Ray. 2012a. Chief of Police, San José-Evergreen Community College District Police Department. Personal communication via electronic mail with Paul Stephenson, Impact Sciences, April 25.

Aguirre, Ray. 2012b. Chief of Police, San José-Evergreen Community College District Police Department. Personal communication via electronic mail with Paul Stephenson, Impact Sciences, August 24.

City of San José. 2011. Environmental Impact Report for the Envision San José 2040 General Plan. Prepared by David J. Powers & Associates.

Jacobson, Curtis. 2012. Fire Marshal, Bureau of Fire Prevention. Personal communication via telephone with Paul Stephenson, Impact Sciences, January 15.

San José Fire Department. 2012a. "Fast Facts." http://www.sjfd.org/FastFacts/fastfacts.asp. Accessed May 1, 2012.

San José Fire Department. 2012b. "SJFD Response by Station: Fiscal Year 2007 - 2008." http://www.sjfd.org/Stats/0708Station.asp. Accessed May 1, 2012.

4.7 TRANSPORTATION AND TRAFFIC

4.7.1 INTRODUCTION

This section of the Draft EIR describes the transportation and circulation conditions in the area surrounding the San José Community College (SJCC) campus, and identifies transportation impacts associated with the development of the SJCC 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 traffic study are included in **Appendix 4.7.**

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 Interstate 280 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.

- Any needed housing, jobs, and neighborhood services should be located near major mass transit centers, with connecting streets configured to facilitate walking and biking.

- The SJCC campus should develop Travel Demand Management (TDM) policies to encourage usage of nearby public transit lines and reduce vehicle trips on the State Highway System.

- Secondary impacts on pedestrians and bicyclists resulting from any traffic impact mitigation measures should be analyzed.

- 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.

- The EIR and TIA should address pedestrian and bicycle accommodations in the analysis of transportation/circulation impacts of the 2025 Updated FMP. The analysis should address internal circulation, pedestrian conditions on adjacent streets, and pedestrian access to local transit.

- Impacts to City of San José transportation facilities should be evaluated according to the City's transportation impact policy and guidelines.

- The EIR should note whether the intersection of Moorpark Avenue and Leland Avenue still programed to be expanded to a full intersection.

- The EIR should disclose the effect of the metering lights activated on Interstate 280 on traffic counts conducted for the traffic analysis.

A majority of these comments were considered in the analysis presented below. With regard to the expanding the intersection of Moorpark Avenue and Leland Avenue to a full intersection, the City does not have any future plans to expand the intersection at this time. Concerning secondary impacts on pedestrians and bicyclists resulting from traffic impact mitigation measures, as discussed in the analysis presented below, no traffic impact mitigation measures are required or are feasible. At this time, the 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.

4.7.2 ENVIRONMENTAL SETTING

Figure 4.7-1, Project Location, Study Intersections, and Freeway Study Segments, presents the project location, surrounding roadway system, study intersections, and freeway study segments. The SJCC campus is located in central San José, California. The campus is immediately south of Interstate 280 (I-280) and is bounded by Moorpark Avenue to the north, Kingman Avenue to the south, Leigh Avenue to the east, and Laswell Avenue and South Bascom Avenue to the west.

4.7.2.1 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. These guidelines as similar to Caltrans' guidelines for the preparation of traffic impact studies. 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 intersections by the proposed project:

1. Bascom Avenue/San Carlos Street
2. Leigh Avenue/San Carlos Street
3. Leigh Avenue/Scott Street
4. Bascom Avenue/Parkmoor Avenue
5. Leland Avenue/Parkmoor Avenue
6. Leigh Avenue/Parkmoor Avenue

NOT TO SCALE

SOURCE: Fehr & Peers - October 2011

FIGURE **4.7-1**

Project Location, Study Intersections, and Freeway Study Segments

7. Bascom Avenue/Moorpark Avenue[1]
8. Leland Avenue/Moorpark Avenue
9. Leigh Avenue/Moorpark Avenue
10. Bascom Avenue/Renova Drive
11. Bascom Avenue/Kingman Avenue (San José City College driveway)
12. Bascom Avenue/Fruitdale Avenue*
13. Sherman Oaks Drive/Fruitdale Avenue
14. Leigh Avenue/Fruitdale Avenue
15. Southwest Expressway/Fruitdale Avenue

Freeway Segments

The analysis also evaluated the operations of the following key freeway segments:

1. SR 17, between Hamilton Avenue and I-280
2. I-280, between Winchester Boulevard and I-880
3. I-280, between I-880 and Meridian Avenue
4. I-280, between Meridian Avenue and Bird Avenue
5. I-880, between I-280 and West San Carlos Street/Stevens Creek Boulevard
6. I-880, between West San Carlos Street/Stevens Creek Boulevard and Bascom Avenue

4.7.2.2 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 are defined from LOS A, with the best operating conditions, to LOS F, with the worst operating conditions. LOS E represents "at-capacity" operations. Operations are designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions.

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1 Designated CMP Intersection

The City of San José has established a minimum acceptable operating level of LOS D for all intersections including Congestion Management Program (CMP) designated intersections. The 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 California Department of Transportation (Caltrans) analyzes a signalized intersection's operation based on average control vehicular delay 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 a LOS designation as shown in **Table 4.7-1, Signalized Intersection Level of Service Definitions Using Average Control Vehicular Delay**.

Table 4.7-1
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+	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 12.0
B		12.1 to 18.0
B-		18.1 to 20.0
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
C		23.1 to 32.0
C-		32.1 to 35.0
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
D		39.1 to 51.0
D-		51.1 to 55.0
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
E		60.1 to 75.0
E-		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.

Unsignalized Intersections

Operations of the unsignalized study intersections are evaluated using the method contained in Chapter 17 of the 2000 HCM and calculated using TRAFFIX 8.0 analysis software. LOS ratings for stop-sign controlled intersections are based on the average control delay expressed in seconds per vehicle. At two-way or side street stop-controlled intersections, control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, control delay is computed as the average of all movements in that lane. For all-way stop-controlled locations, a weighted average delay for the entire intersection is presented. **Table 4.7-2, Unsignalized Intersection Level of Service Definitions** summarizes the relationship between delay and LOS for unsignalized intersections.

Table 4.7-2
Unsignalized Intersection Level of Service Definitions

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Little or no delay	≤ 10.0
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays with intersection capacity exceeded	> 50.0

Source: 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 4.7-3, Freeway Segment Level of Service Definitions**. The Caltrans LOS standard for the freeway segments is LOS E.

Table 4.7-3
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: Highway Capacity Manual, Transportation Research Board, 2000.

4.7.2.3 Existing Roadway Facilities

Regional Access

Interstate 280

Interstate 280 (I-280) is a north-south freeway north of the SJCC campus extending east to downtown San José and northwest to San Francisco. In the vicinity of SJCC campus the freeway runs east-west with four mixed-flow lanes and one carpool lane in each direction. The carpool lane is open to mixed-flow traffic outside of the peak periods. The campus is accessible via ramps at Moorpark Avenue and Parkmoor Avenue, east of Bascom Avenue.

Interstate 880

Interstate 880 (I-880) is a north-south freeway northwest of the SJCC campus extending from the I-280 interchange north to the City of Oakland. The freeway includes three mixed-flow lanes in each direction near the SJCC campus. I-880 continues south of I-280 as State Route 17.

State Route 17

State Route 17 (SR 17) is a north-south freeway west of the SJCC campus extending from the I-280 interchange south to Santa Cruz. The freeway includes three mixed-flow lanes in each direction near the SJCC campus. Additional auxiliary lanes exist between I-280 and Hamilton Avenue. The campus is accessible via a connection at I-280 and ramps at Hamilton Avenue. SR 17 continues north of I-280 as I-880.

Bascom Avenue

Bascom Avenue is a north-south, six-lane arterial roadway bordering the western edge of the SJCC campus. It extends north to Santa Clara and south to Campbell and Los Gatos. Bascom Avenue is designated as Washington Street and Lafayette Street in Santa Clara and Los Gatos Boulevard in Los Gatos.

Moorpark Avenue

Moorpark Avenue is an east-west arterial roadway bordering the northern edge of the SJCC campus. It extends east to I-280 and west to Cupertino where it becomes Bollinger Avenue. Moorpark Avenue is a one-way roadway and provides three eastbound travel lanes east of Bascom Avenue. West of Bascom Avenue Moorpark Avenue is a two-way roadway and provides two travel lanes in each direction.

Parkmoor Avenue

Parkmoor Avenue is an east-west arterial roadway extending between Lincoln Avenue and I-880. In the vicinity of the SJCC campus, Parkmoor Avenue has two westbound travel lanes east of Bascom Avenue and one travel lane in each direction west of Bascom Avenue.

Southwest Expressway

Southwest Expressway is a northeast-southwest arterial roadway southeast of the SJCC campus. The roadway runs parallel to the Vasona light-rail line. In the vicinity of the SJCC campus, Southwest Expressway has four travel lanes north of Stokes Street and two travel lanes south of Stokes Street. The roadway terminates at I-280 in the north and at Bascom Avenue in the south.

West San Carlos Street

West San Carlos Street is an east-west, four-lane arterial roadway extending east to downtown San José and west to Cupertino. West San Carlos Street is designated as Stevens Creek Boulevard west of I-880.

Local Access

Fruitdale Avenue

Fruitdale Avenue is an east-west, four-lane collector roadway extending from south of the SJCC campus east to San José's Willow Glen neighborhood. The portion of Fruitdale Avenue located west of Bascom Avenue is called Enborg Lane and is a two-lane residential street.

Kingman Avenue

Kingman Avenue is a discontinuous east-west, two-lane local roadway that is divided into two segments. The western segment terminates at Bascom Avenue in the west and serves as a driveway into the SJCC campus. The eastern segment terminates in the east into an apartment complex near Sherman Oaks Drive and in the west at Mansfield Drive. The two segments both serve the western parking lots on the campus.

Laswell Avenue

Laswell Avenue is a north-south, two-lane local roadway that parallels Bascom Avenue and extends between Moorpark Avenue and the southern side of campus. The roadway serves as a driveway into the SJCC campus.

Leigh Avenue

Leigh Avenue is a north-south, two- to four-lane arterial roadway bordering the eastern edge of the SJCC campus. Leigh Avenue provides four lanes south of Parkmoor Avenue and narrows to two lanes north of Parkmoor Avenue.

Leland Avenue

Leland Avenue is a north-south, two-lane local roadway that extends between Moorpark Avenue and San Carlos Street. At the signalized intersection of Leland Avenue and Moorpark Avenue, access to campus is provided only to vehicles on Moorpark Avenue as a right-in, right-out driveway. No through movements may be made to or from Leland Avenue from SJCC campus.

Internal Circulation

Internal circulation on the SJCC campus is facilitated by Kingman Avenue and Laswell Avenue and within campus parking lots. There are no roadways that extend from the west side of the campus to the east side of the campus.

4.7.2.4 Existing Pedestrian and Bicycle Facilities

Pedestrian Facilities

Pedestrian facilities consist of sidewalks, crosswalks, pedestrian signals, and off-street paths. Sidewalks are consistent and continuous in the study area with the exception of Moorpark and Parkmoor Avenues. However, some sidewalks are provided near on-street parking spaces on the north side of Moorpark Avenue. Also, no sidewalks are provided on the south side of Parkmoor Avenue in the study area.

Crosswalks and pedestrian signals are located at all of the signalized intersections within the study area. A pedestrian bridge is located 0.25 mile east of the campus that spans the I-280 freeway connecting Moorpark Avenue and College Drive to Parkmoor Avenue. This bridge connects the neighborhood on the south side of the freeway with a shopping center and a post office on the north side of the freeway.

On-campus pedestrian facilities consist of paths connecting buildings to each other and to parking lots. Typically these campus paths provide for pedestrian connectivity and require bicyclists to walk their bicycles. A major pedestrian paseo arcs from the corner of Moorpark Avenue and Bascom Avenue through the Technology Center, across the center of the campus, through the Student Center, and then to the corner of Moorpark Avenue and Leigh Avenue. This 20-foot-wide pedestrian walkway serves as the central connection to most of the campus. However, the existing pedestrian paseo is discontinuous due to the gyms and pool. All other on-campus pedestrian circulation is provided by the use of pedestrian walkways/paths.

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) – Designated roadways for bicycle use by signs only; may or may not include additional pavement width for cyclists.

Figure 4.7-2, Existing Pedestrian and Bicycle Facilities presents existing pedestrian and bicycle facilities in the study area.

A Class I bicycle path is located along Los Gatos Creek. Access to the trail is provided on the east side of Bascom Avenue and on both sides of Leigh Avenue. Class II bicycle lanes are located in both directions of Bascom Avenue south of Fruitdale Avenue, which is approximately 1,000 feet south of the Kingman Avenue entrance to the campus. Bicycle lanes are also provided on Southwest Expressway south of Fruitdale Avenue.

The City of San José Bicycle Plan identifies future bike lanes on Moorpark Avenue from beyond Winchester Boulevard to College Drive at the pedestrian bridge. Other bike lanes are proposed on Bascom Avenue from the existing bike lanes south of Fruitdale Avenue northward to the City of Santa Clara, on Parkmoor Avenue from Meridian Avenue to Bascom Avenue, on Fruitdale Avenue from Bascom Avenue to beyond Meridian Avenue, and on Leigh Avenue from beyond Southwest Expressway

to beyond San Carlos Street. Class III bike routes are also proposed for Kingman Avenue from Leigh Avenue to College Drive, Scott Street from Leigh Avenue to Willard Avenue, College Drive from Kingman Avenue to Moorpark Avenue, and Enborg Lane from Bascom Avenue to Thornton Way.

No 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 variety of locations on the SJCC campus via bike racks. Most of these locations are located near recently constructed high-use buildings such as the Technology Center and Student Center.

4.7.2.5 Existing Transit Service

Santa Clara Valley Transportation Authority (VTA) provides fixed-route bus service on 72 local routes in Santa Clara County, serving the City of San José. VTA also operates light rail service in Santa Clara County. **Figure 4.7-3, Existing Transit Service** shows the existing transit facilities in the study area.

VTA bus stops for routes 25, 61, 62, and 65 provide transit service adjacent to SJCC campus. The campus is easily accessible to transit at its northwest and northeast corners that are served by Routes 61, 62, and 65. While Route 25 does not serve the campus directly, stop locations on Fruitdale Avenue and Bascom Avenue south of the school are within 1,500 feet walking distance from the campus.

Route 25

Route 25 provides service between east San José at the Alum Rock Transit Center and the City of Cupertino near De Anza College. Service is provided weekdays between 5:10 AM and 12:35 AM on 10 to 20-minute headways during the peak commute hours and 30 to 60-minute headways during other times of the day. Weekend service is provided on both Saturday and Sunday between 5:40 AM and 12:00 AM on 15 to 60-minute headways.

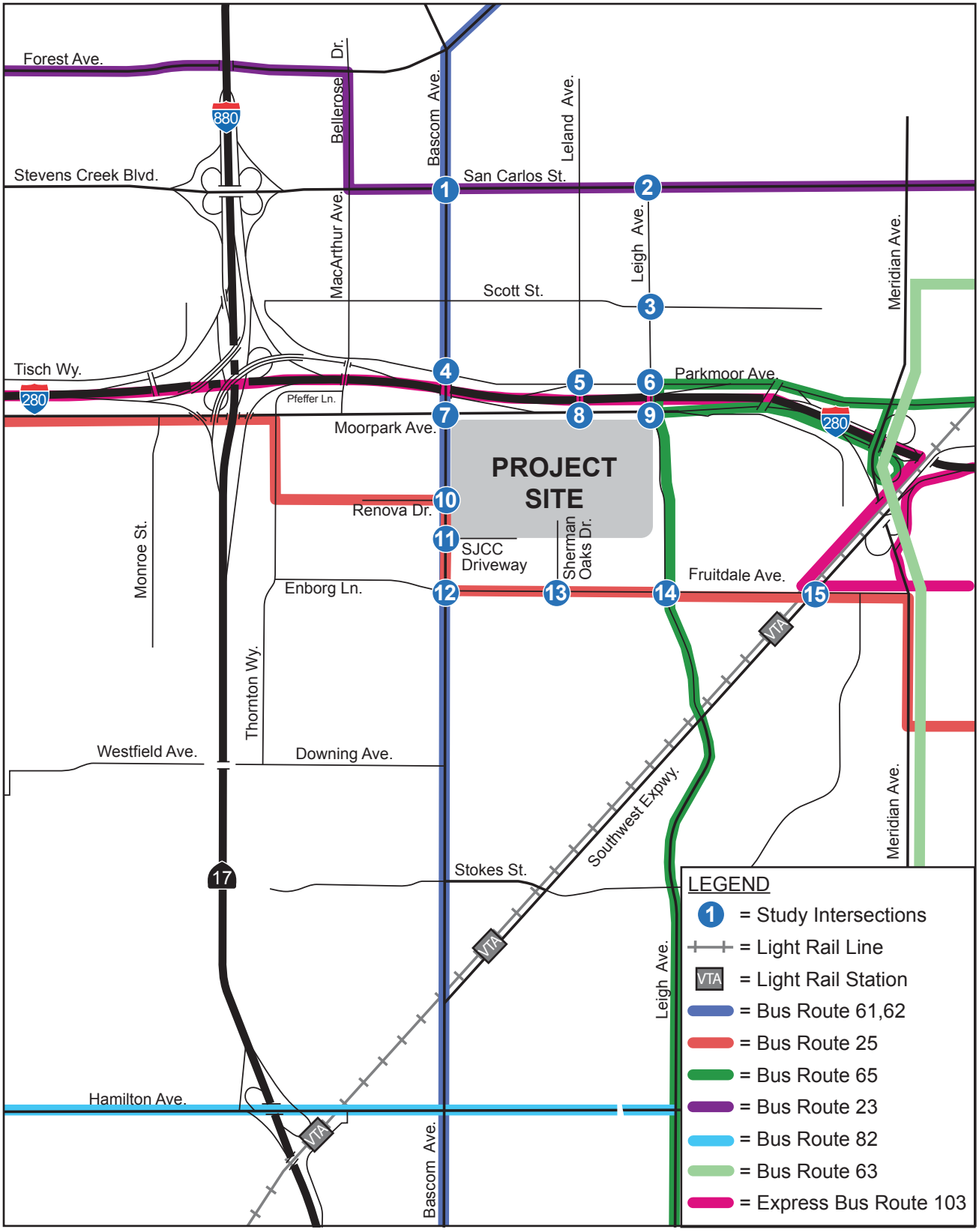
Routes 61 and 62

Routes 61 and 62 provide service between east San José near Piedmont Hills High School to south San José near Good Samaritan Hospital. Both routes use the same streets from the route terminus in east San José to the intersection of Bascom Avenue and Union Avenue in south San José. Route 61 continues to south San José near Good Samaritan Hospital via Bascom Avenue whereas Route 62 continues via Union Avenue. Service is provided weekdays between 5:50 AM and 11:00 PM on 30 to 60-minute headways for both routes. Weekend service is provided on both Saturday and Sunday between 6:15 AM and 10:15 PM on 60 to 90-minute headways for Route 61 and 30 to 60-minute headways for Route 62.

SOURCE: Fehr & Peers - October 2011

FIGURE **4.7-2**

Existing Pedestrian and Bicycle Facilities



NOT TO SCALE

SOURCE: Fehr & Peers - October 2011

FIGURE **4.7-3**

Existing Transit Service

461-003•02/12

Routes 65

Route 65 is a community bus route and it provides service between south San José near Princeton Plaza and the northern edge of downtown San José. Service is provided weekdays between 6:25 AM and 7:20 PM on 60-minute headways. There is no weekend service.

Other bus routes provide service within the study area but do not have stops adjacent to the campus, such as Express Routes 182 and the Highway 17 Express which operate along I-280. Route 103 also operates along Moorpark Avenue in the eastbound direction but does not have stops near San José City College. The nearest Route 103 stop to the campus is located at the Southwest Expressway/Fruitdale Avenue intersection, which is over a 0.5 mile from a campus entrance. The Fruitdale light rail transit station is also located at this intersection. Route 23 serves the San Carlos Street corridor.

4.7.2.6 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 and 9:00 AM and between 4:00 and 6:00 PM. Intersection turning movement counts were conducted in September 2011 when classes at SJCC campus were in session.[2]

Figure 4.7-4, 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 also presents 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 4.7-4, Existing Intersection Levels of Service,** based on the turning movement volumes, lane configurations and traffic control shown on **Figure 4.7-4**. All study intersections currently operate at acceptable levels of service according to the standards set forth by the City of San José and VTA.

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2 The metering lights on the Interstate 280 on ramps in the vicinity of the SJCC campus (southbound from Menker Avenue to Meridian Avenue and northbound from Meridian Avenue to Leland Avenue) were not activated when the intersection turning movement counts were conducted in September 2011.

Table 4.7-4
Existing Intersection Levels of Service

Intersection	Traffic Control	Peak Hour	Delay[1] (Seconds)	LOS[2]
1. Bascom Avenue/San Carlos Street	Signal	AM	42.0	D
		PM	50.7	D
2. Leigh Avenue/San Carlos Street	Signal	AM	23.2	C
		PM	24.8	C
3. Leigh Avenue/Scott Street	4-Way Stop	AM	13.5	B
		PM	11.8	B
4. Bascom Avenue/Parkmoor Avenue	Signal	AM	33.6	C-
		PM	31.1	C
5. Leland Avenue/Parkmoor Avenue[3]	Signal	AM	19.4	B-
		PM	21.1	C+
6. Leigh Avenue/Parkmoor Avenue	Signal	AM	31.1	C
		PM	21.9	C+
7. Bascom Avenue/Moorpark Avenue*	Signal	AM	38.9	D+
		PM	42.8	D
8. Leland Avenue/Moorpark Avenue	Signal	AM	8.6	A
		PM	5.0	A
9. Leigh Avenue/Moorpark Avenue[4]	Signal	AM	26.5	C
		PM	20.1	C+
10. Bascom Avenue/Renova Drive	Signal	AM	11.3	B+
		PM	12.6	B
11. Bascom Avenue/Kingman Avenue	Side-Street Stop	AM	20.0	C
		PM	20.3	C
12. Bascom Avenue/Fruitdale Avenue*	Signal	AM	46.1	D
		PM	46.4	D
13. Sherman Oaks Drive/Fruitdale Avenue	Side-Street Stop	AM	28.2	D
		PM	16.8	C
14. Leigh Avenue/Fruitdale Avenue	Signal	AM	33.6	C-
		PM	30.5	C
15. Southwest Expressway/Fruitdale Avenue	Signal	AM	24.8	C
		PM	28.6	C

Source: Fehr & Peers, January 2012

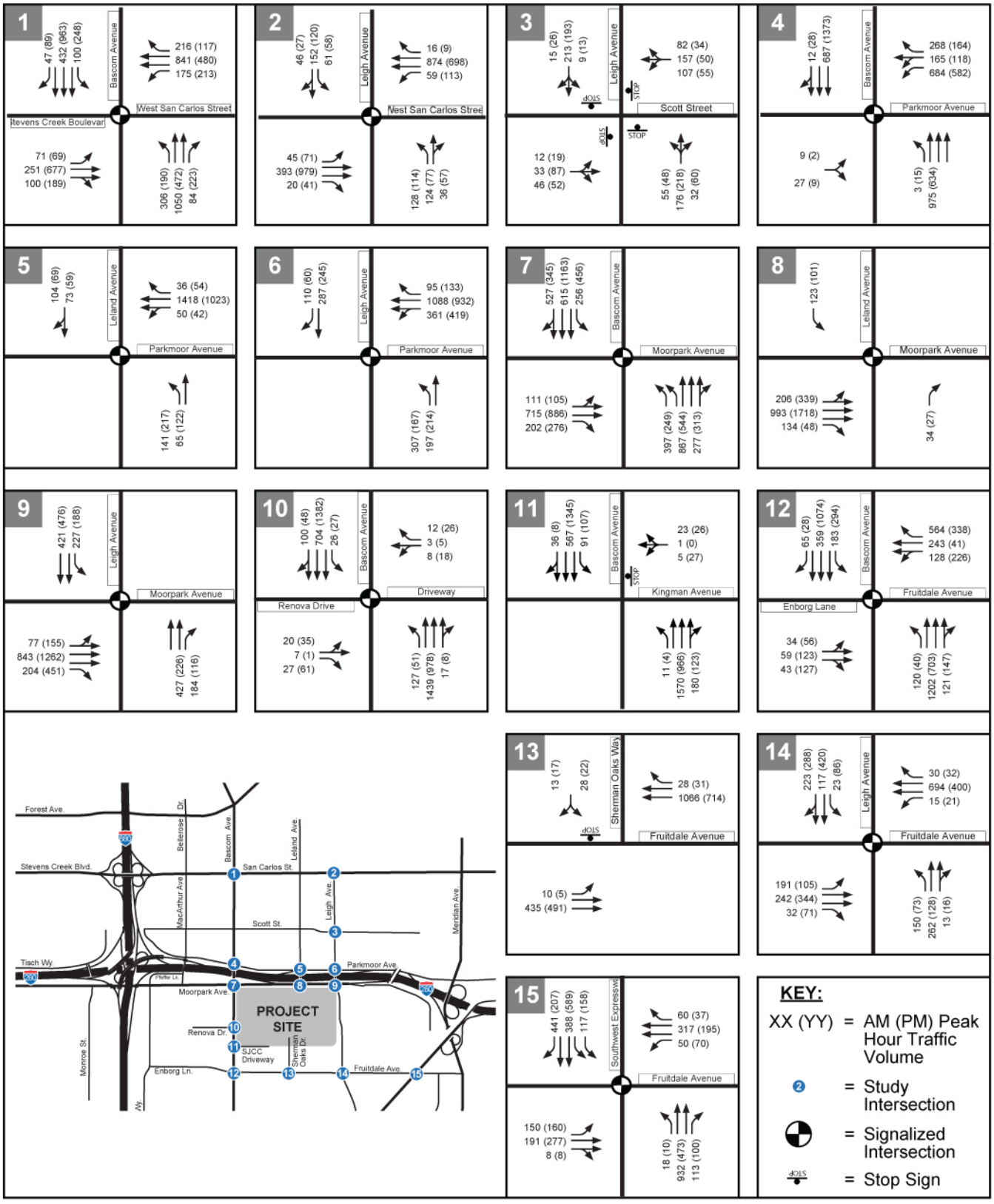
1 *Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the 2000 HCM, with adjusted saturation flow rates to reflect Santa Clara County Conditions. Total control delay for the worst movement is presented for side-street stop-controlled 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.*

3 *The northbound Interstate 280 metering lights from Meridian Avenue to Leland Avenue are planned to be activated in December 2012. If the on-ramp metering induced queue extends beyond the capacity of the ramp, the existing LOS for the intersection of Leland and Parkmoor Avenues could be worsened.*

4 *The southbound Interstate 280 metering lights from Menker Avenue to Meridian Avenue were activated in May 2012. If the on-ramp metering induced queue extends beyond the capacity of the ramp, the existing LOS for the intersection of Leland and Moorpark Avenues could be worsened.*

* *CMP Intersection*



SOURCE: Fehr & Peers - October 2011

FIGURE **4.7-4**

Existing Lane Geometries, Traffic Controls, and Peak Hour Intersection Volumes

4.7.2.7 Existing Freeway Segment Levels of Service

Freeway segment densities reported in VTA's 2010 Monitoring and Conformance Report were used to calculate levels of service for study area freeway segments during the AM and PM peak hours. The results of the LOS analysis for Existing Conditions are presented in **Table 4.7-5, Existing Freeway Intersection Levels of Service**.

Table 4.7-5
Existing Freeway Intersection Levels of Service

Freeway	From	To	Number of Lanes		Peak Hour	Density[1]		Level of Service	
			Mixed	HOV		Mixed	HOV	Mixed	HOV
SR 17 Northbound	Hamilton Avenue	I-280	3	0	AM	69	N/A	F	N/A
					PM	29	N/A	D	N/A
SR 17 Southbound	I-280	Hamilton Avenue	3	0	AM	27	N/A	D	N/A
					PM	35	N/A	D	N/A
I-280 Eastbound	Winchester Boulevard	I-880	3	1	AM	27	9	D	A
					PM	30	29	D	D
	I-880	Meridian Avenue	4	1	AM	27	10	D	A
					PM	65	24	F	C
	Meridian Avenue	Bird Avenue	4	0	AM	42	N/A	D	N/A
					PM	68	N/A	F	N/A
I-280 Westbound	Bird Avenue	Meridian Avenue	4	0	AM	95	N/A	F	N/A
					PM	42	N/A	D	N/A
	Meridian Avenue	I-880	4	1	AM	124	57	F	E
					PM	28	9	D	A
	I-880	Winchester Boulevard	3	1	AM	101	58	F	E
					PM	53	12	E	B
I-880 Northbound	I-280	Stevens Creek Boulevard	3	0	AM	92	N/A	F	N/A
					PM	17	N/A	B	N/A
	Stevens Creek Boulevard	Bascom Avenue	3	0	AM	60	N/A	F	N/A
					PM	27	N/A	D	N/A
I-880 Southbound	Bascom Avenue	Stevens Creek Boulevard	3	0	AM	69	N/A	F	N/A
					PM	63	N/A	F	N/A
	Stevens Creek Boulevard	I-280	3	0	AM	24	N/A	C	N/A
					PM	28	N/A	D	N/A

Source: Fehr & Peers, January 2012

[1] *Measured in passenger cars per mile per lane.*

The following segments of mixed-flow lanes are operating at unacceptable levels (LOS F) according to VTA and Caltrans standards:

- Northbound SR-17, Hamilton Avenue to I-280 (AM peak)
- Eastbound I-280, I-880 to Meridian Avenue (PM peak)
- Eastbound I-280, Meridian Avenue to Bird Avenue (PM peak)
- Westbound I-280, Bird Avenue to Meridian Avenue (AM Peak)
- Westbound I-280, Meridian Avenue to I-880 (AM peak)
- Westbound I-280, I-880 to Winchester Boulevard (AM peak)
- Northbound I-880, I-280 to Stevens Creek Boulevard (AM peak)
- Northbound I-880, Stevens Creek Boulevard to Bascom Avenue (AM peak)
- Southbound I-880, Bascom Avenue to Stevens Creek Boulevard (both peak hours)

The following segments of high-occupancy lanes are operating at unacceptable levels (LOS F):

- Westbound I-280, Meridian Avenue to I-880 (AM peak)
- Westbound I-280, I-880 to Winchester Boulevard (AM peak)

4.7.3 REGULATORY SETTING

4.7.3.1 Envision San José 2040 General Plan

The proposed project would be located on land owned 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 traffic conflicts to the extent feasible. As discussed above, the minimum overall roadway performance during peak travel periods is LOS D (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.

4.7.4 IMPACTS AND MITIGATION MEASURES

4.7.4.1 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.
- 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 Criteria

City of San José

The impacts of the proposed project were evaluated by comparing the results of the level of service calculations under 2025 plus Project Conditions to the results under 2025 No Project Conditions. 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.

Significant impacts at unsignalized 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, and the peak-hour signal warrant from the Manual on Uniform Traffic Control Devices (MUTCD) is met.

- Unacceptable operations (LOS E or F) are exacerbated by adding any traffic, and the MUTCD peak-hour signal warrant is met.

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 Criteria

Significant impacts to freeway segments would 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.

4.7.4.2 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.

- 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.

4.7.4.3 Methodology

Trip Generation

The amount of traffic generated by the additional students was estimated by applying rates derived from driveway counts of the existing campus conducted in September 2007. The rates were derived from the student enrollment at the time of the survey, which was approximately 11,780 students. Trip generation rates per student were calculated for the AM and PM peak hours, as shown in **Table 4.7-6, Project Trip Generation Rates and Estimates**. The additional 2,670 students (for an approximate total of 14,450 students) that were included in this analysis to obtain a "worst-case scenario" are estimated to generate 3,710 net new daily trips, 294 new AM peak-hour trips (234 inbound and 60 outbound) and 355 new PM peak-hour trips (232 inbound and 123 outbound).

Table 4.7-6
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								
San José City College Additional Students	Additional 2,670 Students	3,712	234	60	294	232	123	355
Total		**3,712**	**234**	**60**	**294**	**232**	**123**	**355**

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 (five trip generation surveys) and may not reflect a similar environment of 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 4.7-5, Project Trip Distribution**. The trip distribution is generally consistent with the analysis presented in the previous San José City College Facilities Master Plan EIR, May 2000.

Trip Assignment

Trips generated by the proposed project were assigned to the roadway system based on the directions of approach and departure discussed above. **Figure 4.7-6, Project Trip Assignment** shows the AM and PM peak-hour project trips assigned to each turning movement at the study intersections.

4.7.4.4 Project Impacts and Mitigation Measures

Impact TRANS-1: Implementation of the 2025 Updated FMP would not 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: Less than 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 as full implementation of the proposed project and occupancy of all proposed facilities is anticipated by 2025. Traffic volumes for 2025 conditions were estimated by adding traffic generated by approved and pending developments to existing traffic volumes. San José City 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 was included. **Figure 4.7-7, 2025 No Project Lane Geometries, Traffic Controls, and Peak-Hour Intersection Volumes** illustrates the traffic volumes at the study intersections under 2025 No Project Conditions. The trips generated by the proposed project were added to the 2025 No Project Condition volumes to establish 2025 plus Project Conditions and are shown on **Figure 4.7-8, 2025 Plus Project Lane Geometries, Traffic Controls, and Peak-Hour Intersection Volumes**.

No approved and funded transportation network improvements were assumed to be constructed prior to project completion; therefore, the existing roadway network was used for the 2025 analysis.

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 4.7-7, 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 4.7-7
2025 No Project and 2025 Plus Project Intersection Levels of Service

		2025 No Project		2025 Plus Project			
Intersection	Peak Hour	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Change in Critical V/C[3]	Change in Critical Delay[4]
1. Bascom Avenue/	AM	44.0	D	44.1	D	+0.001	+0.0
San Carlos Street	PM	55.6	E+	55.6	E+	+0.014	+0.4
2. Leigh Avenue/	AM	22.3	C+	22.4	C+	+0.000	+0.0
San Carlos Street	PM	24.8	C	25.2	C	+0.008	+0.7
3. Leigh Avenue/	AM	14.0	B	14.2	B	N/A	N/A
Scott Street	PM	13.4	B	13.6	B	N/A	N/A
4. Bascom Avenue/	AM	34.7	C-	35.0	C-	+0.018	+0.3
Parkmoor Avenue	PM	32.6	C-	33.4	C-	+0.018	+0.7
5. Leland Avenue/	AM	22.8	C+	23.0	C+	+0.019	+0.2
Parkmoor Avenue	PM	23.7	C	23.7	C	+0.025	-0.1
6. Leigh Avenue/	AM	34.3	C-	38.0	D+	+0.048	+4.3
Parkmoor Avenue	PM	23.5	C	25.5	C	+0.060	+2.5
7. Bascom Avenue/	AM	39.3	D	40.5	D	+0.003	+0.2
Moorpark Avenue*	PM	46.4	D	48.5	D	+0.041	+5.2
8. Leland Avenue/	AM	8.1	A	8.2	A	+0.012	+0.2
Moorpark Avenue	PM	4.8	A	5.0	A	+0.014	+0.2
9. Leigh Avenue/	AM	26.5	C	26.2	C	+0.011	-0.2
Moorpark Avenue	PM	20.3	C+	20.3	C+	+0.020	-0.3
10. Bascom Avenue/	AM	13.1	B	13.0	B	+0.002	+0.0
Renova Drive	PM	18.5	B-	18.4	B-	+0.002	-0.1
11. Bascom Avenue/	AM	20.4	C	26.7	D	N/A	N/A
Kingman Avenue	PM	22,1	C	26.4	D	N/A	N/A
12. Bascom Avenue/	AM	47.7	D	48.7	D	+0.019	+1.4
Fruitdale Avenue*	PM	48.8	D	49.5	D	+0.022	+1.0
13. Sherman Oaks Drive/	AM	30.3	D	31.5	D	N/A	N/A
Fruitdale Avenue	PM	18.0	C	18.5	C	N/A	N/A
14. Leigh Avenue/	AM	33.8	C-	33.9	C-	+0.010	+0.3
Fruitdale Avenue	PM	30.9	C	31.2	C	+0.004	+0.0
15. Southwest Expressway/	AM	27.4	C	27.5	C	+0.001	+0.0
Fruitdale Avenue	PM	30.1	C	30.3	C	+0.004	+0.0

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.*

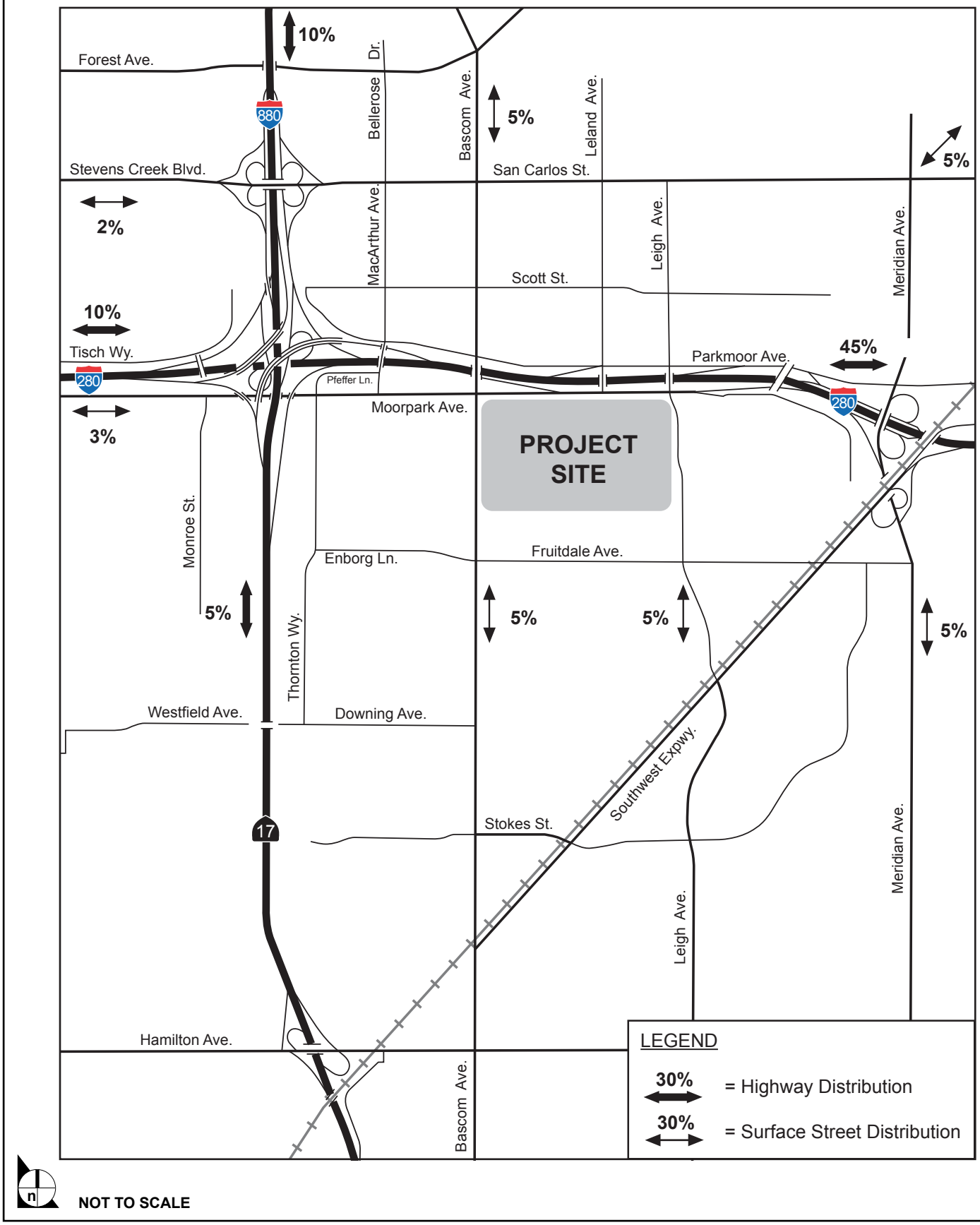
[3] *Change in the critical volume-to-capacity ratio (V/C) between Cumulative and Cumulative plus Project Conditions.*

[4] *Change in critical movement delay between Cumulative and Cumulative plus Project Conditions.*

* *CMP intersection.*

NA = not applicable

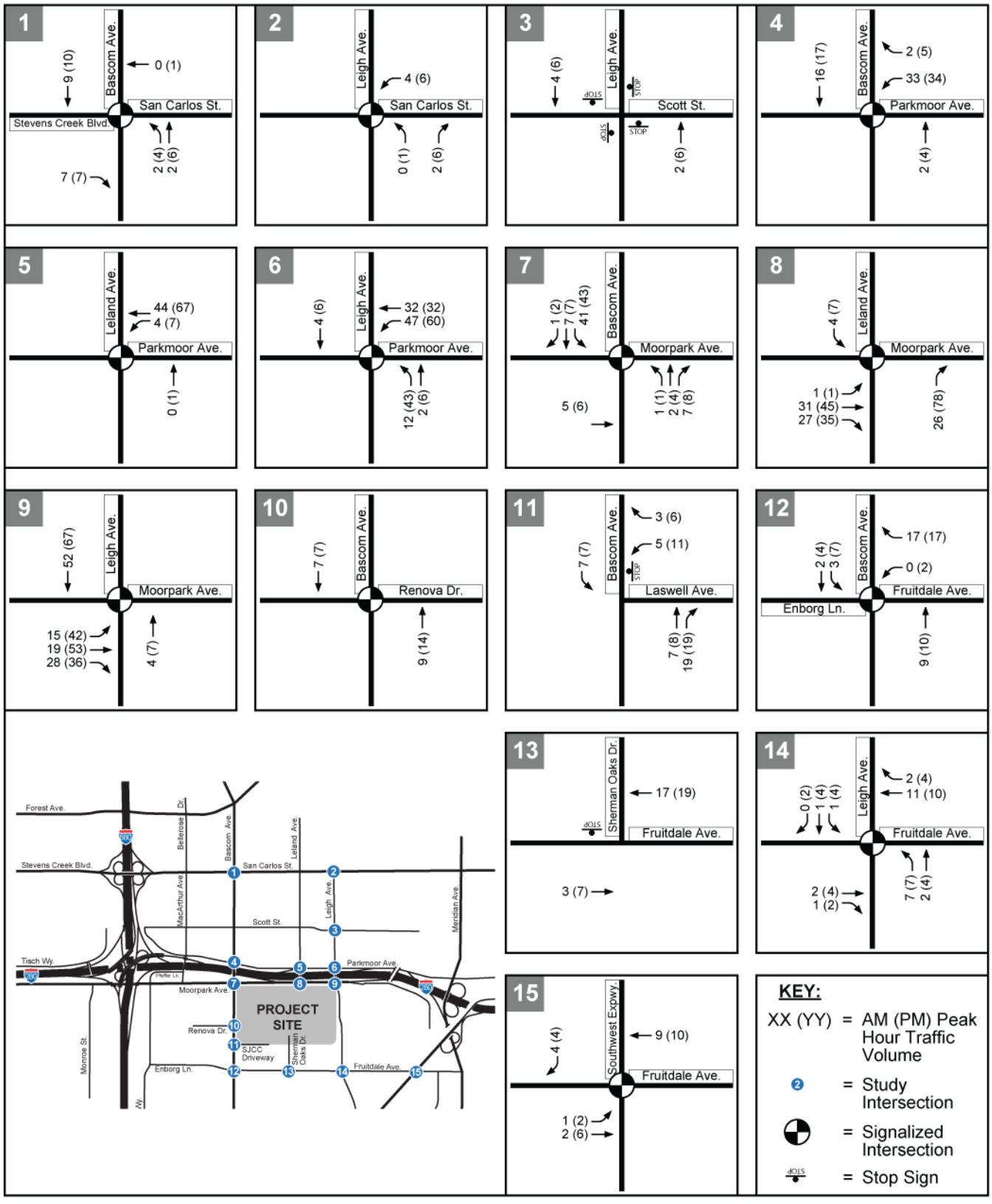
***Bold** type indicates a project impact as defined by City standards.*



SOURCE: Fehr & Peers - October 2011

FIGURE **4.7-5**

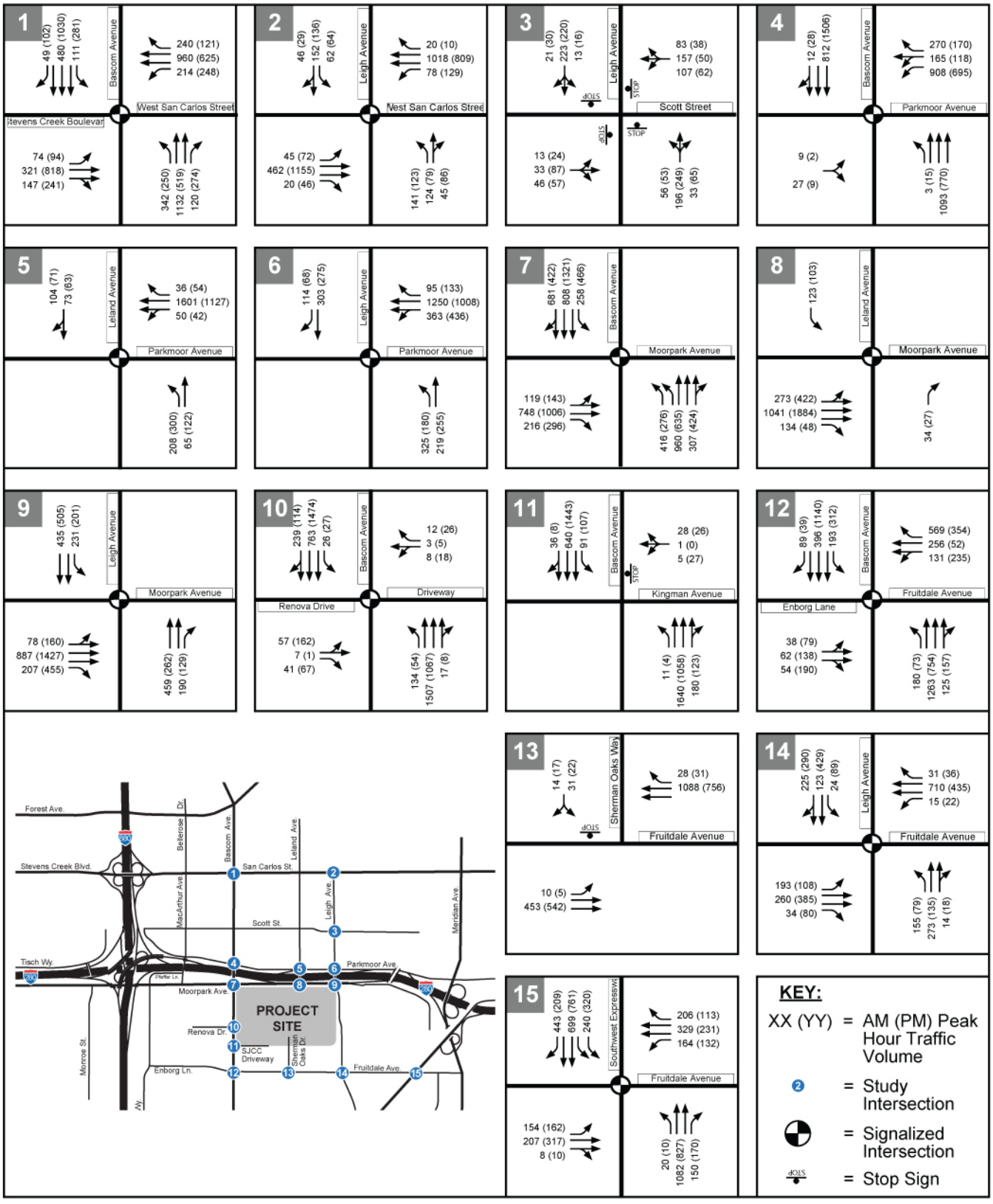
Project Trip Distribution



SOURCE: Fehr & Peers - October 2011

FIGURE **4.7-6**

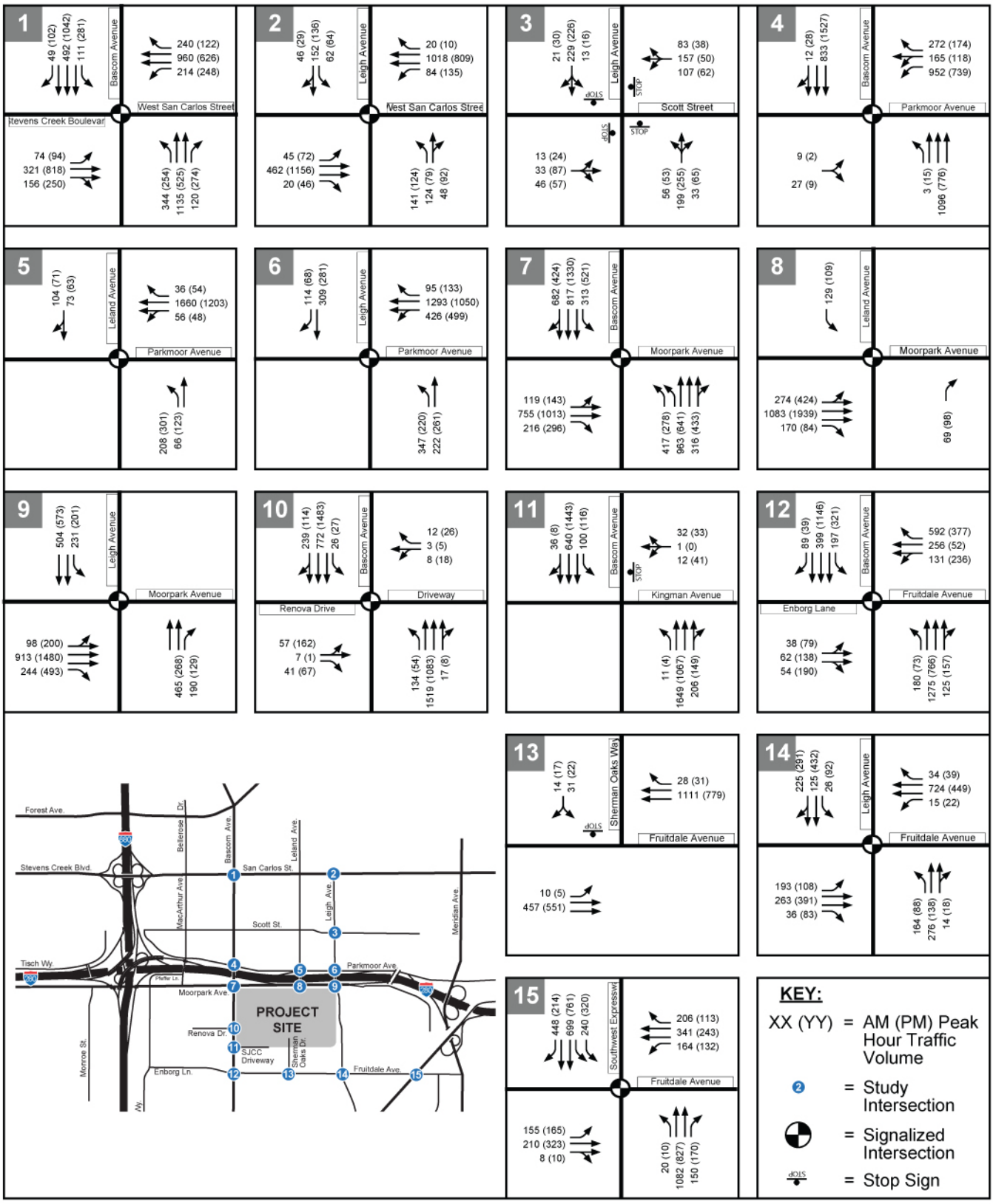
Project Trip Assignment



SOURCE: Fehr & Peers - October 2011

FIGURE **4.7-7**

2025 No Project Lane Geometries, Traffic Controls, and Peak-Hour Intersection Volumes



SOURCE: Fehr & Peers - October 2011

FIGURE **4.7-8**

2025 Plus Project Lane Geometries, Traffic Controls, and Peak-Hour Intersection Volumes

All study intersections will continue to operate at acceptable levels except the Bascom Avenue/San Carlos Avenue intersection, which would operates at LOS E during the PM peak hour under both 2025 No Project Conditions and 2025 plus Project Conditions. However, the addition of project traffic would not increase the critical movement V/C ratio by more than 1 percent or delay by more than four seconds at this intersection. Therefore, implementation of the proposed project would not result in the exceedance of any of the City of San José and VTA significance thresholds for intersection impacts, and the proposed project would not conflict with the City's policy establishing measures of effectiveness for the performance of the circulation system or the VTA's congestion management program. The impact of the proposed project on study intersections would be less than significant.

Mitigation Measure: No mitigation is required.

Impact TRANS-2: Implementation of the 2025 Updated FMP would not conflict with City of San José standards for signalized and unsignalized 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 is for purposes of this EIR 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, such 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 4.7-9, 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 4.7-8, Existing and Existing Plus Project Intersection Levels of Service**.

Table 4.7-8
Existing and Existing Plus Project Intersection Levels of Service

		Existing		Existing Plus Project			
Intersection	Peak Hour	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Change in Critical V/C[3]	Change in Critical Delay[4]
1. Bascom Avenue/	AM	42.0	D	42.1	D	+0.001	+0.0
San Carlos Street	PM	50.7	D	50.8	D	+0.007	+0.3
2. Leigh Avenue/	AM	23.2	C	23.3	C	+0.000	+0.0
San Carlos Street	PM	24.8	C	25.1	C	+0.004	0.4
3. Leigh Avenue/	AM	13.5	B	13.6	B	N/A	N/A
Scott Street	PM	11.8	B	12.0	B	N/A	N/A
4. Bascom Avenue/	AM	33.6	C-	33.3	C-	-0.0310	+1.0
Parkmoor Avenue	PM	31.1	C	31.9	C	+0.018	+0.7
5. Leland Avenue/	AM	19.4	B-	19.4	B-	+0.019	-0.1
Parkmoor Avenue	PM	21.1	C+	20.8	C+	+0.025	-0.4
6. Leigh Avenue/	AM	31.1	C	33.3	C-	+0.048	+2.5
Parkmoor Avenue	PM	21.9	C+	23.6	C	+0.060	+2.1
7. Bascom Avenue/	AM	38.9	D+	40	D	+0.003	+0.1
Moorpark Avenue*	PM	42.8	D	43.6	D	+0.041	+2.3
8. Leland Avenue/	AM	8.6	A	8.7	A	+0.012	+0.2
Moorpark Avenue	PM	5.0	A	5.2	A	+0.014	+0.2
9. Leigh Avenue/	AM	26.5	C	26.2	C	+0.011	-0.2
Moorpark Avenue	PM	20.1	C+	19.9	B-	+0.024	-0.5
10. Bascom Avenue/	AM	11.3	B+	11.2	B+	+0.002	+0.0
Renova Drive	PM	12.6	B	12.5	B	+0.002	+0.0
11. Bascom Avenue/	AM	20.0	C	25.7	C	N/A	N/A
Kingman Avenue	PM	20.3	C	23.7	C	N/A	N/A
12. Bascom Avenue/	AM	46.1	D	46.9	D	+0.019	+1.2
Fruitdale Avenue*	PM	46.4	D	47	D	+0.022	+0.8
13. Sherman Oaks Drive/	AM	28.2	D	29.2	D	N/A	N/A
Fruitdale Avenue	PM	16.8	C	17.3	C	N/A	N/A
14. Leigh Avenue/	AM	33.6	C-	33.8	C-	+0.010	+0.2
Fruitdale Avenue	PM	30.5	C	30.8	C	+0.011	+0.5
15. Southwest Expressway/	AM	24.8	C	25	C	+0.004	+0.2
Fruitdale Avenue	PM	28.6	C	28.8	C	+0.006	+0.4

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.*

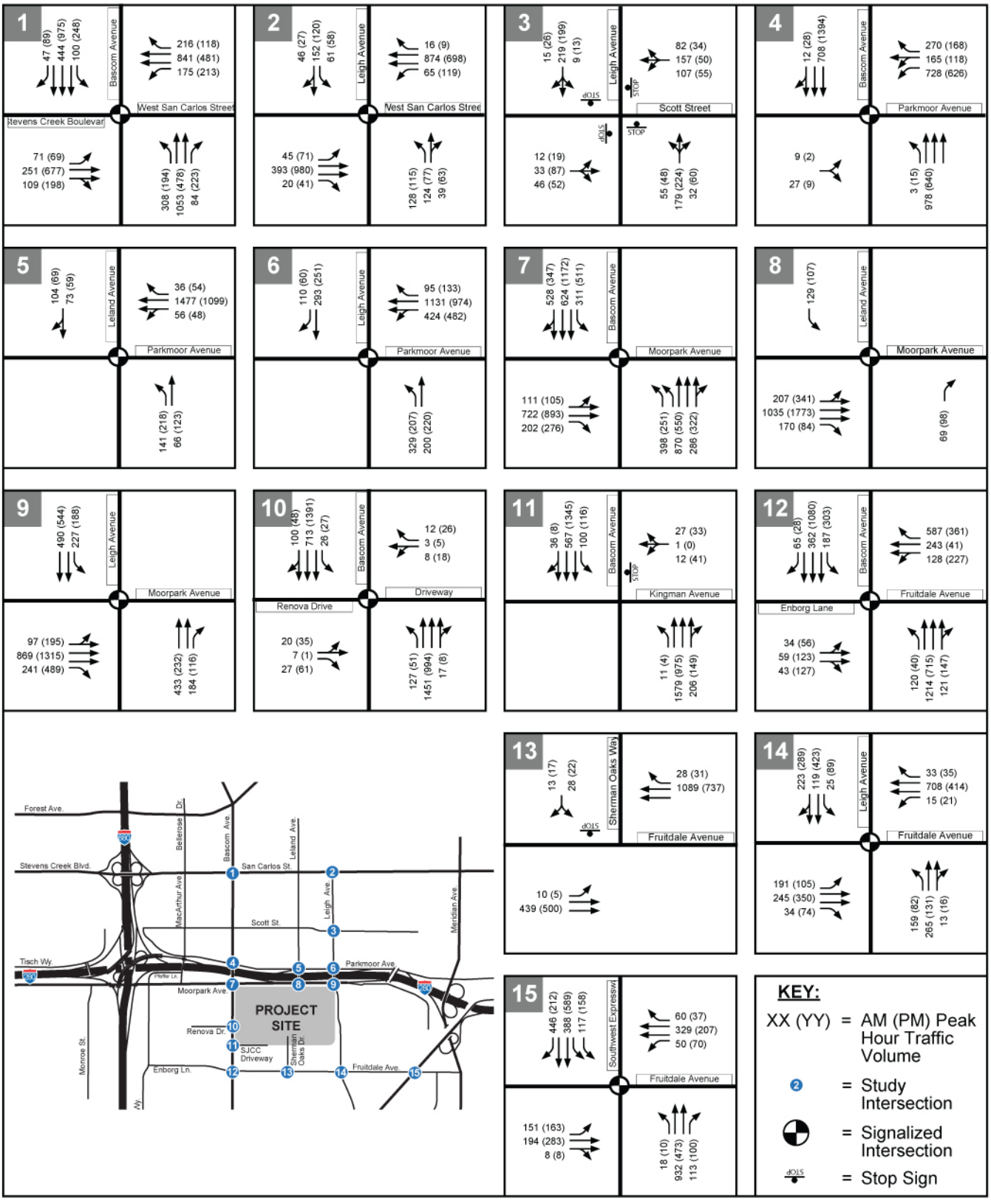
[3] *Change in the critical volume-to-capacity ratio (V/C) between Existing and Existing plus Project Conditions.*

[4] *Change in critical movement delay between Existing and Existing plus Project Conditions.*

* *CMP intersection.*

NA = not applicable

***Bold** type indicates a project impact as defined by City standards.*



SOURCE: Fehr & Peers - October 2011

FIGURE **4.7-9**

Existing Plus Project Lane Geometries, Traffic Controls, and Peak Hour Intersection Volumes

As indicated in **Table 4.7-8**, all intersections would continue to operate acceptably under existing plus project conditions. As a result, implementation of the proposed project would not conflict with City of San José and VTA standards under existing plus project conditions, and the impact on study intersections would be less than significant.

Mitigation Measure: No mitigation is required.

Impact TRANS-3: Implementation of the 2025 Updated FMP would conflict with CMP standards for freeway segments under 2025 plus project conditions.

Level of Significance: Potentially 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 4.7-9, Existing Plus Project Freeway Segment Levels of Service**, the 2025 Updated FMP would add traffic that is more than 1 percent of the capacity of two nearby freeway segments of I-280, including one segment that is operating at an unacceptable LOS under existing conditions. Assuming no change in the capacity along segments of I-280 in the study area by 2025, traffic added by the 2025 Updated FMP would represent more than 1 percent of the capacity of these segments. Assuming that LOS during the AM and PM peak hours would be unacceptable under 2025 No Project conditions and based on the impact criteria listed above, implementation of the 2025 Updated FMP would have a significant impact on the two study freeway segments during the AM and PM peak hours. The proposed project would have a less than significant impact on all other study freeway segments under the same scenario.

The mitigation of freeway impacts is considered beyond the scope of an individual project, due to the inability of any individual project or City to acquire right-of-way for freeway widening. Freeway improvements also would require approval by Caltrans, which neither the SJECCD nor the City can guarantee. Therefore, the impact on freeway segments under 2025 plus project conditions is considered significant and unavoidable.

Mitigation Measure: No feasible mitigation is available.

Significance after Mitigation: Significant and unavoidable

Table 4.7-9
Existing Plus Project Freeway Segment Levels of Service

				Mixed Flow				HOV			
Freeway	From	To	Peak Hour	Trips	Density[1]	LOS[2]	% Percentage of Capacity[3]	Trips	Density[1]	LOS[2]	% Percentage of Capacity[3]
SR 17 Northbound	Hamilton Avenue	I-280	AM	12	61	F	0.15%	N/A	N/A	N/A	N/A
			PM	12	26	C	0.15%	N/A	N/A	N/A	N/A
SR 17 Southbound	I-280	Hamilton Avenue	AM	3	27	D	0.04%	N/A	N/A	N/A	N/A
			PM	9	35	D	0.13%	N/A	N/A	N/A	N/A
I-280 Eastbound	Winchester Boulevard	I-880	AM	21	27	D	0.30%	2	9	A	0.14%
			PM	20	30	D	0.28%	3	29	D	0.21%
	I-880	Meridian Avenue	AM	48	20	C	0.52%	6	10	A	0.37%
			PM	45	49	E	0.49%	8	24	C	0.48%
	Meridian Avenue	Bird Avenue	AM	27	42	D	0.29%	N/A	N/A	N/A	N/A
			PM	55	69	F	0.60%	N/A	N/A	N/A	N/A
I-280 Westbound	Bird Avenue	Meridian Avenue	AM	105	97	F	**1.14%**	N/A	N/A	N/A	N/A
			PM	104	43	D	1.13%	N/A	N/A	N/A	N/A
	Meridian Avenue	I-880	AM	85	117	F	0.99%	15	58	E	0.91%
			PM	90	26	D	1.06%	9	9	A	0.55%
	I-880	Winchester Boulevard	AM	8	101	F	0.11%	1	58	F	0.08%
			PM	11	53	E	0.15%	1	12	B	0.09%
I-880 Northbound	I-280	Stevens Creek Boulevard	AM	5	92	F	0.07%	N/A	N/A	N/A	N/A
			PM	10	17	B	0.14%	N/A	N/A	N/A	N/A
	Stevens Creek Boulevard	Bascom Avenue	AM	6	60	F	0.09%	N/A	N/A	N/A	N/A
			PM	12	27	D	0.17%	N/A	N/A	N/A	N/A

				Mixed Flow				HOV			
Freeway	**From**	**To**	**Peak Hour**	**Trips**	**Density[1]**	**LOS[2]**	**% Percentage of Capacity[3]**	**Trips**	**Density[1]**	**LOS[2]**	**% Percentage of Capacity[3]**
I-880 Southbound	Bascom Avenue	Stevens Creek Boulevard	AM	23	69	F	0.33%	N/A	N/A	N/A	N/A
			PM	23	63	F	0.33%	N/A	N/A	N/A	N/A
	Stevens Creek Boulevard	I-280	AM	19	24	C	0.28%	N/A	N/A	N/A	N/A
			PM	19	28	D	0.28%	N/A	N/A	N/A	N/A

Source: Fehr & Peers, January 2012

[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.*

***Bold** type indicates a project impact.*

Impact TRANS-4: Implementation of the 2025 Updated FMP would conflict with CMP standards for freeway segments under existing plus project conditions.

Level of Significance: Potentially significant.

Impact TRANS-3 above presents the effects of campus traffic at full development under the 2025 Updated FMP, which is for purposes of this EIR assumed to occur by 2025. As discussed above, an existing plus project trips analysis is an unrealistic analysis. Nonetheless, such an analysis was conducted that evaluated the project's traffic impacts on freeway segments under existing plus project conditions.

CMP guidelines require that freeway segments to which a proposed development is projected to add trips equal to or greater than 1 percent of the freeway segment's capacity must be evaluated. **Table 4.7-9, Existing Plus Project Freeway Segment Levels of Service** presents the densities of each freeway segment and the estimated number of trips added to each segment by the proposed project. The proposed project would add more than 1 percent of capacity to one study freeway segment.

Based on the impact criteria listed above, the proposed project would have a significant impact on westbound (northbound) I-280 from Bird Avenue to Meridian Avenue during the AM peak period under existing plus project conditions. The proposed project would have a less than significant impact on all other study freeway segments under the same scenario.

As discussed above under **Impact TRANS-3**, the mitigation of freeway impacts is considered beyond the scope of an individual project, due to the inability of any individual project or City to acquire right-of-way for freeway widening. Freeway improvements also would require approval by Caltrans, which neither the SJECCD nor the City can guarantee. Therefore, the impact on freeway segments under existing plus project conditions is considered significant and unavoidable.

Mitigation Measure: No feasible mitigation is available.

Significance after Mitigation: Significant and unavoidable.

Impact TRANS-5: 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 SJCC campus. It is anticipated that any new roadway segments and driveways proposed on the SJCC 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-6: 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 SJCC campus, thus requiring 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, the accessibility for emergency vehicles is more than adequate. Emergency vehicles can access the campus via roadways such as I-280 and Moorpark Avenue from each of the cardinal directions. Once emergency vehicles have traveled to the project site, the internal roadway network is adequate to allow these vehicles to reach their designated locations. 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-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.

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 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. Concerning

public transit, new development along existing and planned transit facilities is required to 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 SJCC campus and sidewalks and pedestrian bridges link the campus to adjacent neighborhoods. 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 internal circulation as well as direct connections to adjacent pedestrian and bicycle routes. Finally, the SJCC campus is served by four bus routes, and several stops are located adjacent to the campus. The increase in students on the campus that would be facilitated by 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.

4.7.4.5 Cumulative Impacts and Mitigation Measures

Subsection 4.7.4.4, 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 SJCC 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 less than significant at all intersections and significant on two freeway segments. No feasible mitigation measures are available to address the proposed project's contribution to the significant cumulative freeway segment impact. Therefore, **Impact TRANS-1** is found to less than significant and **Impact TRANS-3** is found to be significant and unavoidable for two segments.

4.7.5 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.

4.8 UTILITIES AND SERVICE SYSTEMS

4.8.1 INTRODUCTION

This section describes existing utility systems serving the San José City College (SJCC) campus, and evaluates the effects on these systems from campus development under the 2025 Updated Facilities Master Plan (FMP). This section analyzes potentially significant 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.

4.8.2 ENVIRONMENTAL SETTING

4.8.2.1 Study Area

To evaluate the impacts of campus development under the 2025 Updated FMP, the study area is defined as the SJCC 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 54.5-acre campus.

4.8.2.2 Water Supply

The San José Water Company (SJWC) provides potable water and fire protection water to its customers, which includes the SJCC campus. SJWC has three sources of potable supply: groundwater, imported treated surface water supplied by the Santa Clara Water District (SCVWD), and local surface water. Under normal operations, the SJCC campus receives all of its water from local groundwater sources. However, under some scenarios, treated water and to a lesser degree local surface water could be used to supply water to the campus (Dunbar 2012).

If the SJCC campus were to be served with water from the SCVWD, the water would be treated at the one of the three SCVWD water treatment plants (WTP): Santa Teresa, Penitencia, or Rinconada. The Santa Teresa WTP is the largest of the three plants and can treat and deliver up to 100 million gallons per day (gpd). The Rinconda and Penitencia WTPs can treat and deliver up to 80 million gpd and 40 million gpd, respectively. If the SJCC campus were to be served by local surface water, it would first be treated at either the Montevina Filter Plant or the Saratoga Treatment Plant. Both plants combined can treat and deliver 35 million gpd (LAFCO 2011).

The current water demand of the entire campus is estimated at approximately 270,940 gpd[1] (about 303 acre-feet per year) based on a demand factor obtained from another college campus. However, this estimate does not take into account water conservation measures used on the campus such as low-flow toilets and urinals and self-closing faucets in all restrooms.

SJWC provides water to the campus through underground pipes in the surrounding streets. The pipelines (2 to 10 inches in diameter) connect to on-campus water pipes at Moorpark Avenue, Mansfield Drive, Kingman Avenue, and Leigh Avenue (SJECCD 2000).

4.8.2.3 Wastewater

The City of San José provides wastewater treatment services to the SJCC campus. The 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 from the San José/Santa Clara WPCP (City of San José 2011a).

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 wastewater generation on the campus is estimated at approximately 0.24 mgd[2]. Wastewater generated on the campus is collected into 4- to 6-inch pipes and flows into the City's 4- to 6-inch pipes at Moorpark Avenue, Mansfield Drive, and Leigh Avenue (SJECCD 2000).

4.8.2.3 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

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1 Based on a water demand factor of 23 gpd/student (11,780 students [existing] X 23 gpd/student = 270,940 gpd). Demand rate obtained from Occidental College Specific Plan EIR (SCH No. 2006081153).

2 Based on 90 percent of campus water demand (270,940 gpd [existing] X 90 percent = 243,846 gpd).

include Guadalupe Mines, Kirby Canyon, Newby Island, and Zanker Road. In addition, the Zanker Road site 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 2011a). It is estimated that the campus generates approximately 9,424 pounds of solid waste per day[3] based on a demand factor obtained from another college campus. However, this estimate does not take into account on going recycling programs on the campus such as source separating paper products.

4.8.2.4 Other Utilities

Electricity

Pacific Gas and Electric (PG&E) provides electricity to the SJCC 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 electric include fossil fuels (natural gas/fuel oil), hydroelectric, nuclear, and solar. It is estimated that existing electricity demand of the campus is approximately 4.9 kilowatt-hours per year[4] based a demand factor obtained from another college campus. PG&E provides electricity to the SJCC campus via a newer 12 kV system and an older 4160-volt system. The newer 12-kV system enters through a single point at the Central Plant, and is distributed through a system of underground vaults to most of the newer buildings on the campus. The older 4160-volt system feeds buildings 100 Wing through 300 Wing. This system is scheduled for removal in 2013, with the affected buildings tied-in to the newer 12-kV system (Jewell 2012).

Natural Gas

Pacific Gas and Electric (PG&E) also provides natural gas to the SJCC 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

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3 Based on a solid waste generation rate of 0.8 pounds/day/student (11,780 students [existing] X 0.8 pounds/day/student = 9,424 pounds). Demand rate obtained from Occidental College Specific Plan EIR (SCH No. 2006081153).

4 Based on an electrical demand rate of 11.55 kilowatt/square feet/year (427,300 gross square feet [existing] X 11.55 kWh/sf/year = 4,935,315 kilowatt-hours per year). Demand rate obtained from 2011 Facilities Master Plans for Saddleback College & Irvine Valley College EIR (SCH No. 2011071005).

campus that existing natural gas demand of the campus is approximately 854,600 cubic feet per month.[5] Natural gas is fed from a PG&E main into the campus Central Plant. The gas then is distributed throughout the campus via main and branch lines (Jewell 2012).

4.8.3 REGULATORY SETTING

4.8.3.1 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 supplying 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 with water resource planning to meet their existing and anticipated future demands. UWMPs must be updated every five years in years ending in zero and five.

The SJWC adopted the 2010 UWMP in April of 2011 and it was subsequently submitted to the state Department of Water Resources. The 2010 UWMP includes projected water supplies required to meet future demands through 2035.

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

[5] 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).

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 for larger projects over a 20-year timeframe at the local level. The water 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 assessment are then included in the water supply impact analysis of the EIR.

As the 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.

4.8.3.2 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 José 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.

4.8.4 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 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.

- Fail to comply with applicable federal, state, and local statutes and regulations related to solid waste.

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.

- Require or result in the construction or expansion of storm water drainage facilities, which could cause significant environmental effects.

Implementation of the 2025 Updated FMP would increase impervious surfaces on the campus, which could increase the volume of stormwater drainage conveyed to existing stormwater facilities. However, this increase in runoff would be small and would not substantially exceed the capacity of existing or planned stormwater drainage systems. Therefore, implementation of the 2025 Updated FMP would not require or result in the construction of new storm water drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, this impact is considered less than significant.

4.8.4.3 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.

4.8.4.4 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

Water Supply

The SJCC campus currently receives its water supply from the SJWC. Current daily water consumption on the SJCC campus is estimated at approximately 270,940 gpd. At buildout of the campus under the 2025 Updated FMP, it is estimated that the overall campus water demand would increase to approximately 332,350 gpd,[6] an increase of about 61,410 gpd or 23 percent over existing conditions.

According to the SJWC, growth on the SJCC campus was accounted for in the Water Company's 2010 UWMP (Dunbar 2012). According to the 2010 UWMP, the SJWC would have adequate supply to meet projected demand, including demand on the SJCC campus, through 2035 during normal, single dry, and multiple dry years (SJWC 2011). In addition, the SJCC 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.

Water Delivery Infrastructure

The maximum water demand for the proposed project of approximately 332,350 gpd equates to a maximum flow rate of about 231 gallons per minute (gpm). Based on this flow rate, no major upgrades are required to the City's water mains that serve the campus. For the same reason, no major improvements to existing distribution pipelines within the campus would needed, although minor upgrades may be required to connect new structures to the campus' system. The environmental effects of minor improvements to the campus potable water distribution system are addressed throughout this EIR, including but not limited to **Sections 4.2, Air Quality, 4.3, Greenhouse Gas Emissions, 4.4, Land Use and Planning,** and **4.5, 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 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

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6 Based on a water demand factor of 23 gpd/students (14,450 students [future] X 23 gpd/students = 332,350 gpd).

As discussed above, in the event that the SJCC campus received water from the SCVWD, the water would be treated at the Santa Teresa, Penitencia, or Rinconada WTPs. In the event the SJCC campus received local surface water, it would first be treated at either the Montevina Filter Plant or the Saratoga Treatment Plant. Implementation of the 2025 Updated FMP would result in a net increase in water demand of approximately 61,410 gpd. As discussed above, growth on the SJCC campus was accounted for in the SJWC'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 SJCC 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 0.24 mgd. It is estimated that implementation of the 2025 Updated FMP would increase the volume of wastewater generated on the SJCC campus to approximately 0.30 mgd[7], 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 in excess capacity. As implementation of the 2025 Updated FMP would result in a net increase in wastewater generation of approximately 0.06 mgd, the proposed project would not 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 for new construction or expansion of 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 208 gpm. No major improvements to the City's sewer mains that serve the campus are

7 Based on 90 percent of campus water demand (332,350 gpd [future] X 90 percent = 299,115 gpd).

needed to handle this flow from the campus. However, it is possible that project-specific improvements to distribution piping or other facilities (e.g., line or pump upgrades) near the SJCC 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, 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 SJCC 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.

The physical environmental effects of minor improvements to the campus sewer conveyance system are addressed throughout this EIR, including but not limited to, **Sections 4.2, Air Quality, 4.3, Greenhouse Gas Emissions, 4.4, Land Use and Planning,** and **4.5, 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 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 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 SJCC campus is and 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 9,424 pounds per day. At buildout of the 2025 Updated FMP, it is estimated that solid waste generation on campus would increase to approximately 11,560 pounds per day[8], an increase of about 2,136 pounds, or 23 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 SJCC campus would continue to implement ongoing recycling programs.

8 Based on a solid waste generation rate of 0.8 pounds/day/student (14,450 students [future] X 0.8 pounds/day/student = 11,560 pounds).

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. The campus would reuse and recycle as much construction waste and debris as possible (Jewell 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-5: 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 4.9 million kilowatt hours per year and 854,600 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 decline to approximately 4.1 million kilowatt hours per year[9] and 707,480 cubic feet per month[10], respectively, as less space would be needed on the campus to accommodate future academic programs. In addition, adherence to Title 24 standards and California Green Building standards would further reduce electrical and natural gas demand. As implementation of the proposed project would result in a net decrease of approximately 0.8 million kilowatt-hours of electricity per year and 147,120 cubic feet of 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 piping connections and extensions for new or renovated buildings.

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, 4.3, Greenhouse Gas Emissions, 4.4, Land Use and Planning,** and **4.5, 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.

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9 Based on an electrical demand rate of 11.55 kilowatt/square feet/year (353,740 gross square feet [future] X 11.55 kWh/sf/year = 4,085,697 kilowatt-hours per year).

10 Based on an natural gas demand rate of 2.0 cubic feet/square feet/month (353,740 gross square feet [future] X 2.0 cf/sf/mo = 707,480 cubic feet per month).

Mitigation Measure: No mitigation is required.

4.8.4.5 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 water supply, water and wastewater treatment, solid waste disposal, and energy demand. However, as indicated above, the amount of water demanded 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 demand new or expanded facilities. Furthermore, development under the 2025 Updated FMP would continue 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 thus reduce the Campus's electrical and natural gas demand. As a result, the project's contribution to the cumulative impact would not be considerable.

4.8.5 REFERENCES

City of San José. 2011a. Environmental Impact Report for the Envision San José 2040 General Plan. Prepared by David J. Powers & Associates.

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

Dunbar, Nicole Fourie. 2012. Water Services Engineering Supervisor, San José Water Company. Email communication with Paul Stephenson, Impact Sciences. January 5.

Jewell, Scott. 2012. Project Executive, Gilbane Building Company. Personal communication via electronic mail with Paul Stephenson, Impact Sciences, September 18.

San José/Evergreen Community College District (SJECCD). 2000. Environmental Impact Report for the San José City College Facilities Master Plan. Prepared by Impact Sciences, Inc.

San José Water Company. 2011. *2010 Urban Water Management Plan.*

Santa Clara County Local Agency Formation Commission (LAFCO). 2011. *Santa Clara Countywide Water Service Review*. Adopted December 7.

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 significant environmental 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 based on current plans and consistent with available infrastructure and community services if the project were not approved.
- 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 San Jose City College (SJCC) campus and the individual projects it includes are to:

- support the current instructional programs and student services and identify instructional programs and support services which need to be modified to meet the needs of the College's service area population;
- keep pace with and anticipate the changing needs of the students and the communities served by the College;
- develop partnerships with business and industry within the service area;
- develop alternative strategies for delivering instruction to students;
- develop a plan that would fully incorporate technology into all aspects of the operation of the courses, programs and services of 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;
- emphasize comprehensive planning and how it should be used as a basis for decision making;
- develop a stronger educational program basis to substantiate future facility needs; and
- update the existing campus and provide modern, attractive facilities appropriate for the instructional programs and support services offered.

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**.

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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).

Alternatives considered in this EIR for detailed evaluation include:

- Reduced Enrollment Capacity
- No Project/Facilities Master Plan Update 2011

5.4 ALTERNATIVES ELIMINATED FROM FURTHER 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 SJCC 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 likely 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 the required 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 Evergreen Valley College Campus

The Evergreen Valley College (EVC) campus is located in eastern San Jose at the intersection of San Felipe Road and Yerba Buena Road. The EVC campus currently has plans for expansion that would allow it to accommodate approximately 14,840 students. The 2025 Updated FMP for the EVC campus includes replacement and construction of classroom facilities, additional physical education facilities, and expansion of parking in lots. However, that campus at buildout under its 2025 Updated FMP cannot accommodate the additional students that would be "shifted" from the SJCC campus as capacity even after implementation of the 2025 Updated FMP on the EVC campus would be limited. Furthermore, it is not known how many of the students from SJCC would attend EVC, considering that it is approximately 9 miles east of the SJCC campus. For these reasons, this alternative was determined to be infeasible and was not carried forth in the EIR for detailed evaluation.

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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).

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 SJCC campus. Enrollment on campus would either be capped at approximately 11,780 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 in the 2025 Educational Master Plan for the SJCC campus nor would it meet the projected need for new facilities to meet growing education demands. 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:

- Reduced Enrollment Capacity
- No Project/Facilities Master Plan Update 2011

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 2,670 students over the current enrollment level of about 11,780 students, reaching approximately 14,450 students by 2025. Under the Reduced Enrollment Capacity Alternative, enrollment capacity would only increase by approximately 1,335 students over the current enrollment level, to about 13,115 students by 2025. Less building space would be needed to serve the student population under this alternative compared to the proposed project. Under the 2025 Updated FMP a total of approximately 353,740 square feet of building space would be provided to accommodate the projected student population by 2025, which is a decrease of about 73,560 square feet compared to existing conditions. Under the Reduced Enrollment Capacity Alternative, approximately 321,060 square feet[4] of building space would be provided to meet the projected student population by 2025, which is a decrease of about 106,240 square feet compared to existing conditions. Therefore, the overall extent and

[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 321,055 square feet based on a student population of 13,115 under the alternative.

duration of construction activity under this alternative would be lower than required for the proposed project. The landscape buffer proposed under the 2025 Updated FMP as well as internal roadway improvements and plazas would still be constructed under this 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. In addition, the landscape buffer around the campus would be constructed, thus resulting in a similar visual impact along the campus edge compared to the proposed project. Although less building space would be built on the campus, the Reduced Enrollment Capacity Alternative would result in generally similar light and glare impacts. This alternative would be required to adhere to the same mitigation as the proposed project, and thus light and glare impacts would be reduced to a less than significant level. Therefore, 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 (321,060 square feet) would be built on the campus compared to the amount of building space (353,740 square feet) under 2025 Updated FMP.

Buildout of the campus under the 2025 Updated FMP would add mobile, stationary, and area sources to the campus site that would result in criteria pollutants emissions. However, the total emissions of reactive organic gases (ROG), oxides of nitrogen (NOx), and carbon monoxide (CO) would be lower than under existing conditions, while total emissions for respirable particulate matter (PM10), and fine particulate matter (PM2.5) would slightly increase over existing conditions, and operational emissions associated with the day to day activities of the campus under 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 1,856 trips) compared to the 2025 Updated FMP (an additional 3,712 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.

Greenhouse Gas Emissions

Construction associated with the 2025 Updated FMP would generate greenhouse gas (GHG) emissions, either directly or indirectly. However, as shown by the analysis in **Section 4.3, 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 (321,060 square feet) would be built on the campus compared to the amount of building space (353,740 square feet) under 2025 Updated FMP.

The operation of campus facilities built pursuant to the 2025 Updated FMP would generate GHG emissions, either directly or indirectly. However, as shown by the analysis in **Section 4.3**, the emissions would be lower with implementation of the 2025 Updated FMP compared to current levels and the impact would be less than significant. 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 GHG impacts under this alternative would be reduced compared to the 2025 Updated FMP. The impact would be less than significant.

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 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 but would not result in a significant traffic noise impact. Growth under the Reduced Enrollment Capacity Alternative would also contribute to increased traffic

noise levels, but would reduce this impact compared to the proposed project by limiting campus growth to an enrollment capacity of approximately 13,115 students instead of about 14,450 students. The reduction in student trip generation due to the 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 under this alternative.

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 and institutional uses) would be significant and unavoidable. Construction noise impacts under this alternative would be similar as construction would take also take place close to academic buildings on the campus and within similar distances of residences to the south and east of the campus. Therefore, this alternative would not reduce vibration and noise impacts during construction 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 additional 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 additional 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 would result in less than significant impacts on intersection operations at study area intersections. As there would be fewer additional trips generated due to a lower student population, growth under the Reduced Enrollment Capacity Alternative would also not significantly affect intersection operations, and the impact to study area intersections would also be less than significant.

Growth in the region would result in significant impacts along freeway segments in the study area. Implementation of the 2025 Updated FMP would conflict with Congestion Management Program (CMP) standards for freeway segments, and this impact is significant and unavoidable. Although fewer additional trips would be generated under the Reduced Enrollment Capacity Alternative due to a lower student population, the impact along study area freeway segments would still be significant and unavoidable. However, as a result of fewer additional trips, traffic impacts under this alternative would be reduced compared to the 2025 Updated FMP.

Utilities – Water

The proposed project would increase water demand on campus by approximately 61,410 gallons per day (gpd) to accommodate an increase of about 2,670 students. However, as discussed in **Section 4.8, Utilities and Service Systems**, since the San Jose Water Company's (SJWC) Urban Water Management Plan (UWMP) accounts for future growth on the campus, the impact resulting from the increase in demand under the 2025 Updated FMP is considered less than significant. Enrollment under the Reduced Enrollment Capacity Alternative would increase the student population on campus by approximately 1,335 students, and thus increase water demand by about 30,705 gallons per day (gpd).[5] As the amount of water demanded under the Reduced Enrollment Capacity Alternative would be less than the amount demanded under the proposed project, 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.

Utilities – Wastewater

The proposed project would increase wastewater generation on the campus by approximately 0.06 million gallons per day (mgd) to accommodate an increase of about 2,670 students. As discussed in **Section 4.8, 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

5 Based on a water demand factor of 23 gpd/students (1,335 students X 23 gpd/students = 30,705 gpd).

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 be less than significant. Enrollment under the Reduced Enrollment Capacity Alternative would increase the student population on campus by approximately 1,335 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 impact to treatment capacity under this alternative would also be less than significant. As a result of reduced wastewater generation, the impact related to wastewater generation under this alternative would be reduced compared to the 2025 Updated FMP.

Utilities – Solid Waste

The proposed project would increase solid waste generation on campus by approximately 2,136 pounds per day as a result of the projected increase of about 2,670 students. As discussed in **Section 4.8, 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 1,335 students, and thus increase solid waste generation by about 1,068 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 impact to disposal capacity under this alternative would also be less than significant. As a result of reduced waste generation, impacts related to solid waste generation under this alternative would be reduced compared to the 2025 Updated FMP.

Utilities – Electricity and Natural Gas

The proposed project would decrease electrical and natural gas consumption on the campus by approximately 0.8 million kilowatt-hours per year and 147,120 cubic feet of natural gas per month, respectively, due to a decrease of about 73,560 square feet of building space on the campus. As discussed in **Section 4.8, Utilities and Service Systems**, for this reason, the proposed project would result in a less than significant impact related to electricity and natural gas demand. Building space on campus under the Reduced Enrollment Capacity Alternative would decrease by approximately 106,240 square feet, and thus decrease electrical and natural gas consumption on the campus by approximately 1.2 million

6 Based on 90 percent of campus water demand (30,705 gpd X 90 percent = 27,635 gpd).

7 Based on a solid waste generation rate of 0.8 pounds/day/student (1,335 students X 0.8 pounds/day/student = 1,068 pounds).

kilowatt hours per year[8] and 212,480 cubic feet per month[9], respectively. As the amount of electricity and natural gas consumed under the Reduced Enrollment Capacity Alternative would be less than the amount consumed under the proposed project, the impact to electrical and natural gas supply under this alternative would also be less than significant. As a result of reduced electrical and natural gas consumption, impacts related to electrical and natural gas supply under this alternative would be reduced compared to the 2025 Updated FMP.

Conclusion and Relationship to Project Objectives

The Reduced Enrollment Capacity Alternative would reduce impacts related to aesthetics, air quality, GHG, operational noise, public services, traffic, and utilities. Impacts related to land use and construction vibration and noise 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 to assure that the plan is flexible enough in design to accommodate changes in instructional methodology technology, and delivery systems; and
- Update the existing campus and provide modern, attractive facilities appropriate for the instructional programs and support services offered.

5.5.3 Alternative 2: No Project/Facilities Master Plan Update 2011

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. Instead, the campus would implement the Facilities Master Plan Update 2011 (FMP Update 2011), which was adopted

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8 Based on an electrical demand rate of 11.55 kilowatt/square feet/year (106,240 gross square feet X 11.55 kWh/sf/year = 1,227,072 kilowatt-hours per year)

9 Based on an natural gas demand rate of 2.0 cubic feet/square feet/month (106,240 gross square feet X 2.0 cf/sf/mo = 212,480 cubic feet per month).

10 Ibid, Section 15125.6(e).

in 2010. **Table 5.0-1** lists the facilities planned for construction and demolition under the FMP Update 2011. Existing buildings on the campus total approximately 427,300 square feet. Implementation of the FMP Update 2011 would result in a net reduction of approximately 23,420 square feet of building space on the SJCC campus below existing conditions for a total of about 403,880 square feet of building space on campus. In comparison, implementation of the 2025 Updated FMP would result in a net reduction of about 73,560 square feet of building space on the SJCC campus as approximately 195,560 square feet of existing building space would be demolished under the 2025 Updated FMP compared to about 96,420 square feet of building space under the FMP Update 2011. Overall, the 2025 Updated FMP would result in a total of about 353,740 square feet of building space on campus at buildout. Based on current and future campus facilities, enrollment capacity would be approximately 12,000 students under this alternative, an increase of about 220 students over existing conditions. The landscape buffer as well as internal roadway improvements and plazas proposed under the 2025 Updated FMP would not be constructed under this alternative.

Table 5.0-1
Remaining Facilities under the San Jose City College Facilities Master Plan Update 2011
(Square feet)

Facility	New Construction	Demolition	Net Total
Gym and Physical Education	35,000	--	
Parking Garage No. 2	N/A	--	
Corporate Yard/Maintenance and Operations	18,000	--	
Vocational Tech	20,000	--	
100 Wing	--	-31,603	
200 Wing	--	-32,643	
300 Wing	--	-32,172	
Total	**73,000**	**-96,418**	**-23,418**

Aesthetics

Physical development of the campus under the No Project Alternative would be greater than envisioned by the 2025 Updated FMP, as this alternative would only result in a net decrease of approximately 23,420 square feet of building space on the campus compared to existing conditions as opposed to about 73,560 square feet under the proposed project. However, the change to the visual character of the campus is anticipated to be comparable to that of the proposed project, and 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. However, the landscape buffer around the campus would not be

constructed, thus resulting in a greater visual impact compared to the proposed project. Although more building space would remain on the campus under the No Project Alternative, the alternative would result in generally similar light and glare impacts. The No Project Alternative would be required to adhere to the same mitigation as the proposed project, and light and glare impacts would be reduced to a less than significant level. Overall, aesthetic impacts under this alternative would be greater 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 activities under the No Project Alternative would also result in increased criteria pollutant emissions but the emissions under this alternative would be higher as slightly more building space would be built on campus compared to the amount of construction under 2025 Updated FMP. However, these greater emissions would still not exceed construction thresholds of significance.

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, the total emissions of ROG, NOx, and CO would be lower than under existing conditions while total emissions for PM10 and PM2.5 would slightly increase over existing conditions. However, regardless of the increases, 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 No Project Alternative would also contribute to increased criteria pollutant emissions from traffic, but would result in lower emissions from traffic due to fewer additional trips (306 trips) compared to the proposed project (3,712 trips). Criteria pollutant emissions from stationary and area sources under the No Project Alternative would be greater, as more facilities would be located on the campus (403,880 square feet) than under the proposed project (353,740 square feet). However, as fewer emissions from vehicles would offset the increased emissions from stationary and area sources, air quality impacts during operation under this alternative would be reduced compared to the 2025 Updated FMP.

Greenhouse Gas Emissions

Construction associated with the 2025 Updated FMP would generate GHG emissions, either directly or indirectly. However, as shown by the analysis in **Section 4.3,** the construction emissions would be small and would result in a less than significant effect. Construction associated with the No Project Alternative would also generate GHG emissions. However, these emissions would be slightly greater as more

building space (403,880 square feet) would be built on the campus compared to the amount of building space (353,740 square feet) under 2025 Updated FMP.

The operation of campus facilities built pursuant to the 2025 Updated FMP would generate GHG emissions, either directly or indirectly. However, because the total GHG emissions from the campus following the implementation of the 2025 Updated FMP would be less than the emissions at the present time, the impact would be less than significant. The No Project Alternative would result in slightly more development in comparison to the proposed project, as a greater number of new facilities (403,880 square feet) would be located on the campus than under the proposed project (353,740 square feet). However, the daily population on the campus would only increase by approximately 220 students under this alternative, compared to about 2,670 students under the proposed project, thus resulting in fewer additional vehicle trips (306 trips) and lower GHG emissions than would occur than under the proposed project (3,712 trips). The lower GHG emissions from vehicles would offset the increased GHG emissions from stationary and area sources, and the impact would be less than significant. Therefore, GHG impacts under this alternative would be reduced compared to 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 is less than significant. Development under the No Project 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 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 but would not result in a significant noise impact. Enrollment growth and the related increase in vehicle trips under the No Project 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 12,000 students instead of about 14,450 students. The reduction in student trip generation due to the lower enrollment capacity would decrease the overall traffic and the traffic-related noise would result in a less than significant impact, and, the operational noise impacts under this alternative would be reduced compared to the 2025 Updated FMP.

The proposed project's construction vibration impact to on-site sensitive receptors would be significant and unavoidable with mitigation. Construction vibration impact under the No Project Alternative would

be similar as construction would take place within close proximity of academic buildings on the campus, and would also be significant and unavoidable with mitigation.

With respect to the proposed project's construction noise impact on on-site and off-site sensitive receptors, those would be significant and unavoidable. Construction noise impacts under this alternative would be the same, as construction would also take place close to academic buildings on the campus and would be located within similar distances of residences to the south and east of the campus. Therefore, this alternative would have similar vibration and noise impacts during construction as 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 No Project Alternative would also increase the demand for fire protection services, but not to the same extent as the proposed project, as fewer additional students would be on the campus under this alternative, thus resulting in a less than significant effect that is further reduced compared to the 2025 Updated FMP.

Public Services – Police

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 No Project Alternative would also increase the demand for police services, but not to the same extent as the proposed project, as fewer additional students would be on the campus under this alternative, thus resulting in a less than significant effect that is further reduced compared to the 2025 Updated FMP.

Transportation and Traffic

Buildout of the campus under the 2025 Updated FMP would result in less than significant impacts on intersection operations at study area intersections. As there would be fewer additional trips generated due to a lower student population, growth under the No Project Alternative would also not significantly affect intersection operations, and the impact to study area intersections would also be less than significant. However, buildout of the campus under the 2025 Updated FMP would result in significant and unavoidable impacts along freeway segments in the study area. Although fewer additional trips would be generated under the No Project Alternative due to a lower student population, the impacts along study area freeway segments would still be significant and unavoidable. However, traffic impacts under this alternative would be reduced compared to the 2025 Updated FMP.

Utilities – Water

The enrollment increase of approximately 2,670 students associated with the proposed project would increase water demand on the campus by about 61,410 gallons per day (gpd). However, as discussed in **Section 4.8, Utilities and Service Systems**, since the San Jose Water Company's (SJWC) Urban Water Management Plan (UWMP) accounts for future growth on the campus, the impact from the increase in water demand under the 2025 Updated FMP is considered less than significant. Enrollment under the No Project Alternative could increase the student population on campus by approximately 220 students, and thus increase water demand on campus by about 5,060 gpd[11]. However, the amount of additional water demanded would be lower, as fewer additional students would enroll at the campus under this alternative. Therefore, the less than significant impact of the proposed project related to water demand would be further reduced under this alternative.

Utilities – Wastewater

The enrollment increase of approximately 2,670 students associated with the proposed project would increase wastewater generated on the campus by about 0.06 million gallons per day (mgd). As discussed in **Section 4.8, 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, impacts of the proposed project related to wastewater service would be less than significant. Enrollment under the No Project Alternative could increase the student population on campus by approximately 220 students, and thus increase wastewater generation on the campus by about 0.005 mgd.[12] The amount of additional wastewater generated under this alternative would be lower compared to the proposed project, as fewer additional students would enroll at the campus under this alternative. Therefore, the less than significant impact of the proposed project related to wastewater generation would be reduced under this alternative.

Utilities – Solid Waste

The proposed project would increase solid waste generated on the campus by approximately 2,136 pounds per day as a result of the projected increase of about 2,670 students. As discussed in **Section 4.8, 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.

11 Based on a water demand factor of 23 gpd/students (220 students X 23 gpd/students = 5,060 gpd)

12 Based on 90 percent of campus water demand (5,060 gpd X 90 percent = 4,554 gpd).

Enrollment under the No Project Alternative could increase the student population on the campus by approximately 220 students, and thus increase solid waste generated on the campus by about 176 pounds per day[13]. However, the amount of additional solid waste generated under this alternative would be lower compared to the proposed project as fewer additional students would enroll at the campus under this alternative. Therefore, the less than significant impact of the proposed project related to waste generation would be reduced under this alternative.

Utilities – Electricity and Natural Gas

The proposed project would decrease electrical and natural gas consumption on the campus by approximately 0.8 million kilowatt-hours per year and 147,120 cubic feet of natural gas per month, respectively, due to a decrease of about 73,560 square feet of building space on campus. For this reason, the proposed project would result in a less than significant impact related to electricity and natural gas demand. Building space on the campus under the No Project Alternative would decrease by approximately 23,420 square feet, and thus decrease electrical and natural gas consumption on the campus by about 0.3 million kilowatt-hours per year[14] and 46,840 cubic feet per month[15], respectively. As a result, impacts related to electricity and natural gas demand under this alternative would be greater than compared to the 2025 Updated FMP, but would still be less than significant.

Conclusion and Relationship to Project Objectives

The No Project Alternative would reduce impacts related to operational air quality, operational GHG, operational noise, public services, traffic, and utilities (water, wastewater, solid waste). Impacts related to land use and construction vibration and noise would be comparable to those of the proposed project, while impacts related to aesthetics, construction air quality, construction greenhouse gas, and utilities (electricity and natural gas) would be greater than those of the proposed project. By not implementing the 2025 Updated FMP, the No Project Alternative would not achieve the following objectives:

- Support the current instructional programs and student services and identify instructional programs and support services which need to be modified to meet the needs of the College's service area population.

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13 Based on a solid waste generation rate of 0.8 pounds/day/student (220 students X 0.8 pounds/day/student = 176 pounds)

14 Based on an electrical demand rate of 11.55 kilowatt/square feet/year (23,420 gross square feet X 11.55 kWh/sf/year = 270,501 kilowatt-hours per year)

15 Based on an natural gas demand rate of 2.0 cubic feet/square feet/month (23,420 gross square feet X 2.0 cf/sf/mo = 46,840 cubic feet per month).

- Keep pace with and anticipate the changing needs of the students and the communities served by the College.
- Develop partnerships with business and industry within the service area.
- Develop alternative strategies for delivering instruction to students.
- Develop a plan that would fully incorporate technology into all aspects of the operation of the courses, programs and services of 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.
- Emphasize comprehensive planning and how it should be used as a basis for decision making.
- Develop a stronger educational program basis to substantiate future facility needs.
- Update the existing campus and provide modern, attractive facilities appropriate for the instructional programs and support services offered.

5.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The findings of the alternatives impact analysis discussed above are summarized in **Table 5.0-2, Comparison of Alternatives to the 2025 Updated Facilities Master Plan**. Of the alternatives analyzed in this document, the No Project/Facilities Master Plan Update 2011 Alternative is considered the environmentally superior alternative, as it would substantially reduce most impacts related to the proposed project. However, the No Project Alternative would not meet the objectives of the proposed project.

The *State CEQA Guidelines* require that an environmentally superior alternative be identified among the selected alternatives.[16] If the No Project Alternative is determined to be the environmentally superior alternative, an environmentally superior alternative must also be identified among the remaining alternatives.

The environmentally superior alternative would be the Reduced Enrollment Capacity Alternative. This alternative would reduce impacts related to aesthetics, air quality, GHG, operational noise, public services, traffic and utilities. Impacts related to land use and construction noise would be comparable to those of the proposed project.

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16 California Public Resources Code, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15125.6(e)(2).

Table 5.0-2
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	Slightly greater (still less than significant)
AIR QUALITY- CONSTRUCTION EMISSIONS	Less than significant	Reduced Impact	Slightly greater (still less than significant impact)
AIR QUALITY- OPERATIONAL EMISSIONS	Less than significant	Reduced Impact	Substantially reduced Impact
GREENHOUSE GAS EMISSIONS - CONSTRUCTION	Less than significant	Reduced Impact	Slightly greater (still less than significant impact)
GREENHOUSE GAS EMISSIONS – OPERATIONAL	Less than significant	Reduced Impact	Substantially reduced Impact
LAND USE AND PLANNING	Less than significant	Similar	Similar
NOISE – OPERATIONAL	Less than significant	Reduced Impact	Reduced Impact
NOISE – CONSTRUCTION	Significant (Significant and unavoidable)	Similar	Similar
PUBLIC SERVICES - FIRE PROTECTION	Less than significant	Reduced Impact	Substantially reduced Impact
PUBLIC SERVICES – POLICE	Less than significant	Reduced Impact	Substantially reduced Impact
TRANSPORTATION AND TRAFFIC	Significant (Significant and unavoidable)	Reduced Impact (still significant and unavoidable)	Substantially reduced Impact (still significant and unavoidable)
UTILITIES – WATER	Less than significant	Reduced Impact	Substantially reduced Impact
UTILITIES – WASTEWATER	Less than significant	Reduced Impact	Substantially reduced Impact
UTILITIES - SOLID WASTE	Less than significant	Reduced Impact	Substantially reduced Impact
UTILITIES – ELECTRICITY AND NATURAL GAS	Less than significant	Reduced Impact	Slightly greater (still less than significant)

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 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.

6.0 OTHER CEQA CONSIDERATIONS

6.1 INTRODUCTION

Sections 15126 and 15128 of the *2013 California Environmental Quality Act (CEQA) Guidelines* states 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 indicating the reasons why certain possible effects of a project have been determined not to be significant and therefore, are not evaluated in the 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 could 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 vibrations, although it would not expose off-campus receptors to excessive groundborne vibrations.**

Impact TRANS-3: Implementation of the 2025 Updated FMP would conflict with CMP standards for freeway segments under 2025 plus project conditions.

Impact TRANS-4: Implementation of the 2025 Updated FMP would conflict with CMP standards for freeway segments under existing plus project conditions.

6.2 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 SJCC 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 SJCC 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 SJCC campus would 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. It is also possible that 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 SJCC 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 SJCC campus uses, transports, stores, and disposes of small amounts of hazardous wastes, as described in **Appendix 1.0, Notice of Preparation 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, and 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.

6.3 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 vis-à-vis 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 students and faculty on the SJCC campus (the campus itself does not house any students or employees).

6.3.1 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 SJCC campus is currently accessible from Interstate 280, Moorpark Avenue, Leigh Avenue, Fruitdale, Avenue, and Bascom Avenue. 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 SJCC campus is currently served by the San José Water Company. Individual 2025 Updated FMP projects would connect to the water company's existing water lines. As noted in **Section 4.8, 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 4.8, Utilities and Service Systems**, no extension or increase in the size of 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 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 built out and no growth on those lands would be fostered by the project.

6.3.2 Economic Growth

The proposed project is intended to help the campus accommodate approximately 14,450 students by 2025. As a community college, SJCC 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 the projects would however be unlikely to induce the 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.

6.3.3 Precedent-Setting Action

The SJCC 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.

6.3.4 Development of Open Space

The SJCC 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.

6.4 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 or in the sections of the EIR.

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