DRAFT

ENVIRONMENTAL IMPACT REPORT

Foothill College Facilities Master Plan State Clearinghouse # 2007091014

Prepared for:

Foothill De Anza
Community College District
12345 El Monte Road
Los Altos Hills, CA 94022

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August 2008

FOOTHILL COLLEGE FACILITIES MASTER PLAN

DRAFT
ENVIRONMENTAL IMPACT REPORT

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I. INTRODUCTION

A. INTRODUCTION

The subject of this Draft Environmental Impact Report (Draft EIR) is the Foothill College Facilities Master Plan ("proposed Project") (hereinafter Facilities Master Plan). The Facilities Master Plan was prepared to provide a guide for future campus development at Foothill College (College). In addition to analyzing the potential impacts of campus growth under the Facilities Master Plan at a program level, this Draft EIR addresses the Project-specific environmental effects associated with the construction of near-term projects as described in Section III (Project Description).

The lead agency for this Project is the Foothill-De Anza Community College District, located at 12345 El Monte Road, Los Altos Hills, CA 94022-4599. A detailed description of the proposed Project is contained in Section III (Project Description) of this Draft EIR.

Because the proposed Project will require approval of certain discretionary actions by the Foothill-De Anza Community College District (District) and other governmental agencies, the proposed Project is subject to the California Environmental Quality Act (CEQA). Based on the preparation of a detailed Initial Study (refer to Appendix A to this Draft EIR), it was determined that the proposed Project may have a significant effect on the environment and that an EIR should be prepared.

B. PURPOSE OF THE EIR

The College has commissioned this EIR on the Facilities Master Plan for the following purposes:

- To satisfy CEQA requirements
- To inform the general public; the local community; and responsible, trustee, and state and federal agencies of the nature of the Facilities Master Plan, its potentially significant environmental effects, feasible mitigation measures to mitigate those effects, and its reasonable and feasible alternatives
- To enable the District to consider the environmental consequences of approving the Facilities Master Plan and the near-term projects
- To provide a basis for preparation of any future environmental documents
- For consideration by responsible agencies in issuing permits and approvals for the proposed Project

As described in CEQA and the *CEQA Guidelines*, public agencies are charged with the duty to avoid or substantially lessen significant environmental impacts, where feasible. In discharging this duty, a public agency has an obligation to balance the project's significant impacts on the environment with other

conditions, 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 impacts of the proposed Project on the environment and to indicate the manner in which those significant impacts can be avoided or significantly 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 impacts 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 decision on the Facilities Master Plan and the specific projects. Although the EIR does not determine the ultimate decision that will be made regarding implementation of the project, CEQA requires the District to consider the information in the EIR and make findings regarding each significant effect in the EIR.

The District will certify the EIR for the College. Once certified, the EIR will serve as the base environmental document for the Foothill campus and will be used as a basis for decisions on campus growth and development. Other agencies may also use this EIR in their review and approval process.

This Draft EIR was prepared in accordance with Section 15151 of the *CEQA Guidelines* which defines the standards for EIR adequacy:

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

C. PROPOSED PROJECT

The proposed Project involves the renovation and construction of campus facilities on the existing 136-acre Foothill College campus, which is located in Los Altos Hills, approximately thirty-five miles south of San Francisco. Serving more than 18,000 day and evening students, the College is a multicultural institution committed to meeting the evolving educational, economic and cultural needs of an increasingly technology-based global community.

In June 2006 the voters approved a $490.8 million dollar District-wide bond (Measure C) to continue the renovation and replacement of aging facilities as well as upgrade technology on the campus. The 2007 Facilities Master Plan is intended to inform the direction of Measure C. This plan is driven by the demands of future growth, instructional and student support program analyses, and the expectations of a

technologically savvy student community, and will serve the unmet needs of the 1999 Facilities Master Plan. The Master Plan and accompanying illustrations provide a vision of the recommendations for campus development and renovations over the next five-to-ten year period.

With the adoption of the Facilities Master Plan, the College would establish a framework to guide the physical development of the campus over the next ten years. In addition to the renovation and repair of outdated buildings and infrastructure upgrades described above, the Facilities Master Plan consists of the addition of two new buildings: the Physical Sciences and Engineering Center (PSEC) and the Scene Shop. The proposed new buildings are described in Section III (Project Description). The Project proposes the construction of two buildings providing approximately 62,500 square feet of building space, including approximately 41,500 square feet of assignable space.

D. TYPE OF EIR

The Facilities Master Plan is both a conceptual architectural build-out plan of the campus and a statement about the buildings and their function. A plan typically includes building locations, uses, traffic circulation, parking, utilities, drainage, environmental issues, and a discussion about the look and character of the campus. It is not an implementation plan, and its adoption does not constitute a commitment to any specific project, construction schedule, or funding priority. Rather, the Master Plan and accompanying illustrations provide a vision of the recommendations for campus development and renovations over the next five-to-ten year period. Each project undertaken during the planning horizon of the Facilities Master Plan must be approved individually by the College, in compliance with CEQA. This Facilities Master Plan EIR is a First Tier/Program EIR that evaluates the effects of the entire Facilities Maser Plan at a program level.

Section 15168(a) of the *CEQA Guidelines* defines a Program EIR as an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either: 1) geographically; 2) as logical parts in the chain of contemplated actions; 3) in connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or 4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

Section 15168(b) of the *CEQA Guidelines* indicates that use of a Program EIR can provide the following advantages. The Program EIR can:

1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action;

2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis;

3) Avoid duplicative reconsideration of basic policy considerations;

4) Allow the Lead Agency to consider broad policy alternatives and programwide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts; and

5) Allow reduction in paperwork.

As stated earlier, this EIR is also a project EIR that evaluates near-term projects that are proposed for implementation as part of the Facilities Master Plan. As required by CEQA and the *CEQA Guidelines*, the project EIR examines all phases of the near-term projects, including planning, construction, operation, and reasonably foreseeable phases.

With respect to other development projects that may be proposed during the Facilities Master Plan planning horizon, CEQA and the CEQA Guidelines state that subsequent projects should be examined in light of the Program EIR to determine whether additional environmental documentation must be prepared. If no new significant effects would occur, all significant effects have been adequately addressed and no new mitigation measures would be required, the subsequent projects within the scope of the Facilities Master Plan could rely on the environmental analysis provided in the Program EIR, and no additional environmental documentation must be prepared. The subsequent documents may also rely on the Program EIR, as appropriate, for general discussions and for the analysis and cumulative impacts, but would be tiered to allow the subsequent documents to focus on more project- and site-specific impacts. In either case, CEQA findings must be made for subsequent projects.

E. ALTERNATIVES TO THE PROJECT

Three alternatives are evaluated in Section VI. (Alternatives to the Proposed Project): the No Project/No Build, Reduced Intensity, and Alternate Site Plan Configuration alternatives. All alternatives are located on the Project site. Differences between the build alternatives include the number and/or average size of the buildings and changes to internal roadway configurations. The alternatives to be analyzed in comparison to the proposed Project include:

Alternative A: No Project/No Build Alternative

Alternative B: Reduced Intensity

Alternative C: Alternate Site Plan Configuration

F. EIR REVIEW PROCESS

The Initial Study was circulated from September 5, 2007to October 5, 2007 for public review and is included as Appendix A to this Draft EIR. This Initial Study evaluated a slightly different site plan that included (but was not limited to) the following components: Loop Road realignment and the construction of a new science and engineering building on the north slope of the Project site immediately south of

Building 4000. (The new science and engineering building is called the North Slope Complex in the 2007 Facilities Master Plan.)

The District received comments on the Project from local agencies and the public on various environmental areas of concern. In response to those comments, the District has chosen to modify the Project from what was originally proposed and studied in the Initial Study. These revisions include eliminating the proposed realignment of the Loop Road to the outer edge of campus and relocation of the proposed the new science and engineering building, which is now know as the PSCE. Because the Loop Road realignment is no longer a part of the Project and the Loop Road will remain in its current location, the proposed location of the PSEC was revised to an area south of Parking Lot 4. Consequently, the North Slope Science Building was renamed the Physical Sciences and Engineering Center. Two pedestrian connections/footbridges over the Loop Road have been added to the Project in Parking Lot 3 and from the PSEC. Additionally, the expansion of Parking Lot 4 has been reduced from 2.25 acres to 0.5 acres to allow for the PSEC. All other Project components as described in the Initial Study remain the same. The 2.25-acre Parking Lot 4 would be resurfaced and expanded to approximately 2.75 acres in size to add up to 50 additional parking spaces.

Notice of Preparation

Comments from identified responsible and trustee agencies, as well as interested parties on the scope of the EIR, were solicited through a Notice of Preparation (NOP) of an EIR process. The NOP for the EIR was circulated for a 30-day review period starting on September 5, 2007 to October 5, 2007. A public scoping meeting was also held on September 18, 2007 at Foothill College, Appreciation Hall (Building 1500), 12345 El Monte Road, Los Altos Hills, CA 94022-4599 to solicit input from agencies, individuals, and organizations. A copy of the NOP is included in Appendix A to this Draft EIR. Comments submitted in response to the NOP are included in Appendix B to this Draft EIR.

Environmental Review Process

The Draft EIR will be circulated for review and comment by the public and other interested parties, agencies, and organizations for 45 days. All comments or questions about the Draft EIR should be addressed to:

Foothill De Anza College
Facilities, Operations, and Construction Management
ATTN: Charles Allen
12345 El Monte Road, Los Altos Hills, CA 94022-4599
(650) 949-6150, (650) 948-5194 (Fax)

Project Approvals

Following the close of the public and agency comment period, responses to all comments that raised significant environmental issues regarding the Project will be prepared for publication in the Final EIR. The Final EIR will be prepared as a separate document from the Draft EIR, and will be considered by the District at a public meeting and certified if it is determined to comply with CEQA. Upon certification of the EIR, the District will consider the Facilities Master Plan for approval. Some or all of the near-term projects may be considered for approval by the District.

CEQA Findings and Mitigation Monitoring

CEQA requires that when a public agency makes findings based on an EIR, the public agency must adopt a reporting or monitoring program for those measures that it has adopted or made a condition of Project approval in order to mitigate for those measures that it has adopted or made a condition of Project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program must be designed to ensure compliance during Project implementation.

G. USES OF THE FACILITIES MASTER PLAN EIR

This document serves three purposes. The District will use this EIR to evaluate the environmental implications of adopting the Facilities Master Plan and approving the near-term projects. If the Facilities Master Plan is approved, this EIR will be used to focus environmental review of subsequent campus projects. Lastly, this document may be used as a source of information by responsible agencies with permitting or approval authority over the Project.

H. LEVELS OF SIGNIFICANCE

This EIR uses a variety of terms to describe the levels of significance of adverse impacts identified during the course of the environmental analysis. The following are definitions of terms used in this EIR:

- **Less-than-significant impact:** Impacts that are adverse, but that do not exceed the specified standards of significance.

- **Potentially significant impact:** Significant impacts that may ultimately be determined to be less than significant; the level of significance may be reduced in the future through further definition of the project detail. Potentially significant impacts may also be impacts about which there is not enough information to draw a final 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.

- **Significant impact:** Impacts that exceed the defined standards of significance and that can be eliminated or reduced to a less-than-significant level through the implementation of feasible mitigation measures.

- **Significant and unavoidable impact:** Impacts that exceed the defined standards of significance and that cannot be eliminated or reduced to a less-than-significant level through the implementation of feasible mitigation measures.

I. ORGANIZATION OF THE DRAFT EIR

This Draft EIR is organized into eight sections as follows:

Section I (Introduction): This section provides an introduction and a description of the intended uses of the EIR and the review and certification process.

Section II (Summary): This section includes a summary of the Project description, environmental impacts that would result from implementation of the proposed Project, proposed mitigation measures, and the level of significance of the impact before and after mitigation.

Section III (Project Description): This section presents a complete description of the proposed Project including Project location, Project characteristics, and Project objectives. This section also provides an overview of the study area's environmental setting including a description of existing and surrounding land uses, and history and background of the Project site and College.

Section IV (Environmental Impact Analysis): This section is the primary focus of this Draft EIR. Each environmental issue contains a discussion of existing conditions for the Project area, an assessment and discussion of the significance of impacts associated with the proposed Project, proposed mitigation measures, cumulative impacts, and level of impact significance after mitigation.

Section V (General Impact Categories): This section provides a discussion of the potential growth inducement of the proposed Project as well as a summary of any significant unavoidable impacts associated with the proposed Project.

Section VI (Alternatives to the Proposed Project): This section includes an analysis of a range of reasonable alternatives to the proposed Project to provide informed decision making in accordance with Section 15126(f) of the CEQA Guidelines. The range of alternatives selected is based on their ability to feasibly attain most of the basic objectives of the Project and avoid or substantially lessen any of the significant effects of the Project.

Section VII (Preparers of the EIR and Persons Consulted): This section presents a list of lead agency, other agencies and consultant team members that contributed to the preparation of the Draft EIR. This section also identifies persons consulted during preparation of the Draft EIR.

Section VIII (References): This section provides full references of sources cited in the Draft EIR.

Section IX (Acronyms): This section provides the definitions of acronyms referenced in the Draft EIR.

II. SUMMARY

A. INTRODUCTION

This summary provides a brief description of the proposed Project, areas of known controversy, including issues raised by agencies and the public; and unresolved issues. The summary also identifies which impacts are significant, what specific mitigation measures have been identified to reduce each significant impact, and the level of significance of the impact both before and after mitigation. This summary is intended as an overview and should be used in conjunction with a thorough reading of the Draft EIR. The text of this Draft EIR, including figures, tables, and appendices, serves as the basis for this summary.

B. SUMMARY OF PROPOSED PROJECT

The subject of this Draft EIR is the Foothill College Facilities Master Plan ("proposed Project") (hereinafter Facilities Master Plan). The Facilities Master Plan was developed in support of the mission and goals of the College as contained in the Educational Master Plan 2005-2015 and provides a framework to guide the physical development of the campus over the next ten years. In addition to analyzing the potential impacts of campus growth under the Facilities Master Plan at a program level, this Draft EIR addresses the project-specific environmental effects associated with the construction of near-term projects as described in Section III (Project Description).

In June 2006 the voters approved a $490.8 million dollar District-wide bond (Measure C) to continue the renovation and replacement of aging facilities as well as upgrade technology on the campus. These construction, renovation, and improvements are needed to accommodate an estimated increase in enrollment at the College of approximately 2,839 students over the next ten years. The District prepared the 2007 Foothill College Facilities Master Plan (Project), which provides direction of projects that would be funded under Measure C. The development of the Facilities Master Plan took into account the College's needs from a wide range of college planning documents, including the 2006 Master Plan Bond Cost Summary, 2006 Five Year Construction Plan, 2006 State of the College, 2005 Educational Master Plan, 2004 District Planning Guidelines, and 1999 Foothill De Anza Facilities Master Plan.

The Facilities Master Plan involves the renovation and construction of campus facilities on the existing 136-acre Foothill campus. With the completion of the Facilities Master Plan, Foothill College will establish a ten-year vision that would transform the campus' educational environment and enhance the manner in which the College offers courses, programs, and cultural events to the community. In addition to the construction of new buildings, parking lots, road and access improvements, and pedestrian/bike paths, the Facilities Master Plan also proposes to renovate and repair outdated buildings with infrastructure upgrades. In total, the proposed Project may involve the construction of a Scene Shop, as well as a small complex of three closely spaced buildings for the Physical Sciences and Engineering Center, providing approximately 62,500 square feet of building space, including approximately 41,000 square feet of assignable space.

C. AREAS OF KNOWN CONTROVERSY

Section 15123 of the *CEQA Guidelines* requires an EIR to identify areas of controversy known to the lead agency, including issues raised by agencies and the public, and issues to be resolved. The comments received on the Initial Study and Notice of Preparation of an EIR, the areas of known controversy were primarily related to the realignment of Loop Road and the associated noise, air quality, and traffic impacts. However, this is no longer a part of the proposed Project. Thus, there are also no known issues of controversy to be resolved.

D. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA requires a discussion of potentially significant, irreversible environmental changes that could result from the project. Examples include projects that generally commit future generations to similar uses, irreversible damage that may result from accidents associated with a project, or irretrievable commitments of resources.

The College has been at its present location for almost 50 years. The majority of the renovation and repair of existing facilities as well as the construction of new facilities and buildings proposed by the Facilities Master Plan is anticipated on the portions of campus that are currently developed. Significant and unavoidable cumulative impacts with regard to air quality have been identified.

E. APPROACH TO THE CUMULATIVE ANALYSIS

Section 15130 of the *CEQA Guidelines* provides that EIRs consider the significant environmental effects of a proposed project as well as "cumulative impacts." "Cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts (*CEQA Guidelines* Section 15355). *CEQA Guidelines* Section 15130(b) states:

> *"The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."*

Cumulative impacts may be analyzed by considering a list of past, present, and probable future projects producing related or cumulative impacts (*CEQA Guidelines* Section 15130[b][1][A]). In addition, *CEQA Guidelines* Section 15130(b)(1)(B) allows lead agencies to rely on a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to

the cumulative impact. The cumulative impact discussions provided within each individual impact category relies on the year 2015 build-out as the cumulative condition.

F. SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table II-1 presents a summary of project impacts, recommended mitigation measures, and level of significance both before and after mitigation.

Table II-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
AESTHETICS		
Impact IV.A-AES.1 *The Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*	**Mitigation Measure IV.A-AES.1** Prior to the installation of lighting fixtures, the District shall revise the existing Lighting Plan or prepare a new Lighting Plan for the Project site. While the design of exterior lighting standards shall be sympathetic to the scale, materials, and design of the 1961 campus light fixtures, typical lighting should include low mounted, downward casting and shielded lights that do not cause spillover onto adjacent properties. Low intensity, indirect light sources shall be encouraged. No flood lights shall be utilized.	**Less than Significant**
GEOLOGY AND SOILS		
Impact IV.A-GEO.1 *The Project would not be located within a state-designated Alquist-Priolo Zone or other designated fault zone.*	**Mitigation Measure IV.A-GEO.1** All structures shall be designed and constructed in accordance with the earthquake resistant provisions of the California Building Code. California Building Code site seismic parameters necessary for design shall be based on a site specific geotechnical investigation.	**Less than Significant**
Impact IV.A-GEO.2 *The Project would not be located in an area identified as having a high risk of ground failure, including liquefaction.*	**Mitigation Measure IV.A-GEO.2a** The District would conduct a site-specific geotechnical investigation prior to construction of each building project. The investigations would provide detailed geotechnical recommendations for the	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	conditions of a particular development site. The geotechnical investigation would consider the potential for liquefaction hazards, in particular for projects within the current or historic Adobe Creek floodplain and the Purissima Creek. The District would implement all feasible measures identified in the geotechnical investigation to avoid or minimize liquefaction potential. The individual project design and construction would incorporate and implement all of the feasible recommendations in the site-specific geotechnical investigations. These recommendations could typically include some or all of the following: a. All grading and earthwork for each project would be performed under the observation of the geotechnical consultant. c. Surface runoff would be collected near the top of the new slopes by means of drainage swales, area drains or berms, which collect and direct water into approved drainage facilities. f. The geotechnical consultant would provide soil engineering observation and testing services during the grading and foundation installation phases of the new construction. **Mitigation Measure IV.A-GEO.2b** Typical options to address liquefiable soils shall consist of the	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	following: a) remove and replace potentially liquefiable soils with engineered fill; b) densify potentially liquefiable soils with an in-situ ground improvement technique such as deep dynamic compaction, vibro-compaction, vibro-replacement, compaction grouting, or other similar methods; c) support the proposed structures on a pile foundation system, which extends below the zone of potential liquefaction; d) strengthen foundations (e.g., post-tensioned slab, reinforced mat or grid foundation, or other similar system) to resist excessive differential settlement associated with seismically-induced liquefaction; and, e) support the proposed structures on an engineered fill pad in order to reduce differential settlement resulting from seismically-induced liquefaction and post-seismic pore pressure dissipation. The required mitigation for design shall be based on a site specific geotechnical investigation.	
Impact IV.A-GEO.3 *The Project would not be built on an unstable geologic unit or in an unstable area that could potentially result in on-and off-site landsliding, lateral spreading, subsidence, or collapse.*	**Mitigation Measure IV.A-GEO.3** Landslide risk will depend on the precise location and type of the planned development as well as the extent of earthwork needed to provide desired finished grades. The required mitigation for design shall be based on a site specific geotechnical investigation, which may include recommendations for setbacks from any potentially unstable slope.	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
Impact IV.A-GEO.4 *The Project would not expose large areas to the erosional effects of wind or water for a protracted period of time.*	**Mitigation Measure IV.A-GEO.4** Ground-disturbing activity shall require the consideration of erosion control measures such that minimal erosion and sedimentation is allowed outside the building footprint and construction area. Prior to development of the proposed Project, the District would develop an erosion control plan. During each individual project, construction personnel would implement all relevant and feasible measures of the plan during earthmoving and other construction activities. The plan would include, but not be limited to, the following measures: a. To the extent feasible, restricting earthmoving activities to the dry season and providing erosion protection measures for each project prior to the onset of winter rains. b. Minimizing the amount of soil exposed at any one time (through scheduling, prompt completion of grading, and use of staged stabilization). c. Preserving existing vegetation to the extent feasible (through marking and protection). d. Designating soil stockpile areas on the construction plans and covering and protecting soil stockpiles by a plastic membrane during	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	the rainy season. e. Revegetating disturbed areas, utilizing such measures as planting of native grasses, plants and shrubs and the installation of jute netting and hydroseeding in areas of more difficult revegetation. f. Implementing the dust control mitigation measures Section IV.B (Air Quality).	
Impact IV.A-GEO.5 *The Project would not pose a hazard to life and property by building on expansive soils without proper site preparation or design features to provide adequate foundations for Project buildings.*	**Mitigation Measure IV.A-GEO.5** Expansive soils risks will depend on the precise location and type of the planned development as well as the types of underlying soils and the extent of earthwork needed to provide desired finished grades. The required mitigation shall consist of one or a combination of: a. Careful moisture conditioning and compaction control during site preparation and placement of engineered fills; b. Removal and replacement with non-expansive fill; or c. Chemical treatment with lime to lower the expansion potential and/or decrease the moisture content. Landscape and irrigation controls shall also be required.	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	The final recommendations for design shall be based on a site-specific geotechnical investigation	
HAZARDS AND HAZARDOUS MATERIALS		
Impact IV.A-HAZ.1 *The Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.*	**Mitigation Measure IV.A-HAZ.1a** A specification produced by a California Certified Asbestos Consultant for the abatement of the ACM, ACCM and RACM shall be prepared and should be the basis for selecting contractors to perform the proposed abatement work. **Mitigation Measure IV.A-HAZ.1b** A State of California licensed asbestos abatement contractor shall be retained to perform the asbestos abatement of the ACM, ACCM and RACM noted at the site. The general contractor for the renovation project may be a source for local licensed abatement contractors. **Mitigation Measure IV.A-HAZ.1c** Contractors performing work that disturbs ACM, ACCM and RACM at the site shall implement appropriate work practices in accordance with applicable California Occupational Safety & Health Administration (Cal-OSHA) worker exposure regulations as well as the regulatory requirements of the Asbestos Hazard Emergency	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	Response Act. **Mitigation Measure IV.A-HAZ.1d** A California DHS Certified Lead Project Designer shall prepare a specification for the abatement of the LBP identified in the LBP survey. **Mitigation Measure IV.A-HAZ.1e** A State of California licensed lead abatement contractor shall be retained to perform the abatement of the LBP. The general contractor for the renovation work can be a source for local licensed abatement contractors. **Mitigation Measure IV.A-HAZ.1f** Contractors performing work that disturbs painted components at the site shall implement appropriate work practices in accordance with applicable Cal-OSHA worker exposure regulations. **Mitigation Measure IV.A-HAZ.1g** Any repainting or renovation activities shall be conducted in a cautious manner, using methods that minimize the disturbance of LBP.	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	Practices used shall not cause airborne concentrations of lead to exceed the applicable OSHA Permissible Exposure Limit (PEL) for airborne lead. In particular, any cutting, torching, grinding, or dry sanding of the painted components covered by the LBP shall not be performed, as these activities could contribute to airborne lead concentrations above the applicable PEL. Personal air monitoring of renovation workers could be conducted to assess airborne lead concentrations during work activities that disturb the LBP or lead containing paints.	
HYDROLOGY		
Impact IV.A-HYD.1 *The Project would not violate any water quality standards or waste discharge requirements nor would it otherwise substantially degrade water quality.*	**Mitigation Measure IV.A-HYD.1a** Prior to development of individual projects, the District shall be required to submit and oversee implementation of a Storm Water Pollution Prevention Plan (SWPPP) for the respective project or project components as they are constructed, in accordance with the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity. The SWPPP shall detail the treatment measures and best management practices (BMPs) to control pollutants and an erosion control plan that outlines erosion and sediment control measures that would be implemented during the construction and post-construction phases of project development. In addition, the SWPPP shall include construction-phase housekeeping measures for control of contaminants such as petroleum products, paints and solvents,	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	detergents, fertilizers, and pesticides. It shall also describe the post-construction BMPs used to reduce pollutant loadings in runoff and percolate once the site is occupied (e.g., grassy swales, wet ponds, and educational materials) and shall set forth the BMP monitoring and maintenance schedule and responsible entities during the construction and post-construction phases. The SFBRWQCB and District shall enforce compliance with the regulatory requirements of the General Permit. **Mitigation Measure IV.A-HYD.1b** As individual projects are designed, the District would incorporate features (such as on-site detention) into the projects or elsewhere on the site to reduce future peak runoff flows leaving the site to or below existing levels. The College would consult with the Santa Clara Valley Water District regarding the District's requirements for runoff control. The College District would incorporate its runoff control features into any future College project that would result in an increase in peak runoff leaving the Project site. For every project resulting in changes to the storm water collection system, the District shall include a system of source control, structural improvements, and treatment systems to protect long-term water quality. These measures to treat runoff shall be designed to meet the maximum extent practicable (MEP) treatment standard in the Clean	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	Water Act consistent with the MEP standard as defined in the Santa Clara Valley Urban Runoff Pollution Prevention Program Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit. BMPs that shall be considered include: 1. Grass strips and grassy swales where feasible to reduce runoff and provide initial storm water treatment. 2. Storm drains will discharge to natural surfaces or swales where possible to avoid excessive concentration and channelization of storm water. 3. If necessary, small retention or detention basins will be considered to maximize the retention time for settling of fine particles. To meet the MEP standard, treatment BMPs shall be constructed that incorporate, at a minimum, the following hydraulic sizing design criteria to treat stormwater runoff. This sizing shall consider local rainfall data to design appropriately sized BMPs. Volume Hydraulic Design Basis: Treatment BMPs whose primary mode of action depends on volume capacity, such as detention/retention units or infiltration structures, shall be designed to treat stormwater runoff equal to:	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	1. The maximized stormwater quality capture volume for the area, based on historical rainfall records, determined using the formula and volume capture coefficients set forth in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCEManual of Practice No. 87, (1998), pages 175~178 (e.g., approximately the 85th percentile 24-hour storm runoff event); or 2. the volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with the methodology set forth in Appendix D of the California Stormwater Best Management Practices Handbook, (1993), using local rainfall data. Flow Hydraulic Design Basis: Treatment BMPs whose primary mode of action depends on flow capacity, such as swales, sand filters, or wetlands, shall be sized to treat: 1. 10 percent of the 50-year peak flow rate; or 2. the flow of runoff produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or 3. the flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity.	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	Mitigation Measure IV.A-HYD.1c Alternatively, the District would prepare a Master Drainage Plan for the Project site. The Plan would incorporate the information on existing and anticipated future drainage patterns, existing drainage problems, and the existing storm drain system. The analysis of future drainage patterns would take into account the contribution of the remainder of the Adobe Creek watershed. The College would include drainage controls for all projects that result in an increase in impervious surfaces, to keep peak runoff rates at or below pre-project levels for the 100-year storm (or for a lesser design storm, if the Water District uses such a storm in its flood control planning for individual project sites). The College would consult with the Santa Clara Valley Water District regarding the District's requirements for runoff control.	
Impact IV.A-HYD.2 *The Project would not involve a substantial alteration of drainage patterns that results in a substantial increase in erosion or siltation during construction or operation of the Project.*	**See Mitigation Measures IV.A- HYD.1a through IV.A-HYD.1c**	**Less than Significant**
Impact IV.A-HYD.3 *The Project would not result in increased runoff volumes during construction or operation of the project that would result in flooding conditions affecting the Project site or nearby properties.*	**See Mitigation Measures IV.A- HYD.1a through IV.A-HYD.1c**	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
Impact IV.A-HYD.4 *The Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems nor provide substantial additional sources of polluted runoff.*	**See Mitigation Measures IV.A- HYD.1a through IV.A-HYD.1c**	**Less than Significant**
Impact IV.A-HYD.5 *The Project would not place structures within a 100-year flood plain which would impede or redirect flood flows, nor would it expose people or structures to a significant risk of loss, inquiry or death involving flooding, including flooding as a result of the failure of a levee or dam.*	**Mitigation Measure IV.A-HYD.1d** Prior to any building activity along the northern or southern boundaries of the Project site, the District shall review the location to verify whether any structures are within the current FEMA 100 year flood plain. If they are, the District shall take action to revise the current FEMA FIRM to reflect existing elevations in the vicinity of the proposed building areas. This action shall include a detailed computerized flood hazard analysis in accordance with current standards set forth by FEMA. If the detailed analysis shows that the proposed development area is outside of the 100-year flood plain and floodway, the development could be constructed in the area proposed with no further mitigation. If the analysis does not show that the proposed development area is outside of the 100-year flood plain and floodway, appropriate flood plain management measures should be incorporated into the location and design of new buildings or roadways. The determination of the appropriate mitigation measures	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	shall be made by a qualified civil engineer or hydrologist.	
PUBLIC SERVICES		
Impact IV.A-PUB SERV.1 *The Project would not result in a substantial adverse physical impact associated with the provision of fire services and the need for new or physically altered fire facilities.*	**Mitigation Measure IV.A-PUB SERV.1** Fire sprinklers shall have a minimum flow of 1,500 gallons per minute at 20 pounds per square inch (psi).	**Less than Significant**
UTILITIES AND PUBLIC SERVICES		
Impact IV.A-UTIL.1 *The Project would increase water consumption or wastewater generation to such a degree that the capacity of facilities currently serving the project site would be exceeded.*	**Mitigation Measure IV.A-UTIL.1a** The District shall consult with the City of Los Altos as projects are designed and prior to construction to determine if the District will need to purchase additional capacity to accommodate flows resulting from the Project. **Mitigation Measure IV.A- UTIL.1b** Recommended water conservation features shall be installed, such as low-flow showerheads, toilets, and urinals, low-flow faucet aerators in sink faucets, and water-conserving clothes washers and dishwashers.	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	Mitigation Measure IV.A- UTIL.1c Drought-tolerant, low water consuming plant varieties shall be selected where feasible and appropriate. **Mitigation Measure IV.A- UTIL.1d** A landscape irrigation system that provides uniform irrigation coverage for each landscape zone to the maximum extent feasible, with sprinkler head patterns adjusted to minimize over spray onto walkways and streets, shall be designed and implemented.	
Impact IV.A-UTIL.2 *The Project site would not require or result in the construction of new storm drain facilities serving the Project site.*	**See Mitigation Measures IV.A-UTIL.1a through IV.A-UTIL.1d**	**Less than Significant**
Impact IV.A-UTIL.3 *The proposed Project would increase wastewater generation to such a degree that the capacity of facilities currently serving the Project site would be exceeded.*	**See Mitigation Measures IV.A-UTIL.1a through IV.A-UTIL.1d**	**Less than Significant**
AIR QUALITY		
Impact IV.B-1:	**Mitigation Measure IV.B-1a** The following mitigation measures apply to activities associated with the proposed construction and are intended to reduce the temporary	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
Project Construction Would Result in Emissions of Criteria Pollutants.	generation of fugitive dust to a less-than-significant level. The measures to reduce construction- related PM_{10} emissions reflect basic and optional dust control measures recommended by BAAQMD: • All active construction areas shall be watered at least twice daily. • All trucks hauling soil, sand, and other loose materials shall be covered with tarpaulins or other effective covers. • All unpaved access roads, parking areas, and staging areas at the construction site shall be paved; otherwise, water or non-toxic soil stabilizers shall be applied to all unpaved access roads. In addition, paved access roads, parking areas, and staging areas shall be swept daily with a water sweeper. Streets shall be swept daily with a water sweeper in areas where visible soil material is carried onto adjacent public streets. • The applicant shall hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded area inactive for ten days or more). • The applicant shall enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.). • The applicant shall limit traffic speeds on unpaved roads to 15 miles per hour.	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	• The applicant shall install sandbags or other erosion control measures to prevent silt runoff to public roadways. • The applicant shall replant vegetation in disturbed areas as quickly as possible. • The applicant shall install wheel washers for all trucks leaving the sight and wash all truck wheel before they leave the site • During periods when trucks are transporting soil to or from the site, dirt that may have been tracked off the site shall be removed daily from the street. The area to be cleaned is to extend to the limit of noticeable dirt tracked from the site or for a distance of 75 feet on each side of a vehicle entrance or exit, whichever is greater. If water is used to clean the street, then the quantity of water used shall not result in sediment being washed into the storm sewer catch basins. Street sweepings shall be disposed of as a waste along with waste soil in accordance with applicable regulations. • The applicant shall terminate excavation and grading activities when winds exceed 25 mph or when fugitive dust emissions are visible for a distance of at least 100 feet from the origin of such emissions, and there is visible evidence of wind driven fugitive dust. Wind speed would be determined when an on-site anemometer registers at least two wind gusts in excess of 25 miles per hour within a consecutive 30-minute	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	period. **Mitigation Measure IV.B-1b** Implementation of the following mitigation measures would reduce short-term exhaust emissions from construction-related equipment to a less-than-significant level: • The idling time of all construction equipment used at the site shall not exceed five minutes. • The applicant shall limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use. • All equipment shall be properly tuned and maintained in accordance with the manufacturer's specifications. Emissions from all off-road diesel powered equipment used on the Project site shall not exceed 40 percent opacity for more than three minutes in any hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. A visual survey of all in-operation equipment shall be made at least weekly throughout the duration of the Project construction. A record of the inspection shall be maintained on-site. The BAAQMD and/or other officials may conduct periodic site inspections to determine compliance. • The applicant shall require construction contractors to install	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	particulate traps when appropriate on diesel engines. • The applicant shall use the minimum practical engine size for construction equipment. • Gasoline-powered equipment shall be equipped with catalytic converters, where feasible	
Greenhouse Gas Emissions	Impacts from any new greenhouse gas emissions on climate change are not known and therefore the cumulative impacts associated with the Project on climate change would be considered significant and unavoidable.	**Significant and Unavoidable**
BIOLOGICAL RESOURCES		
Impact IV.C-1: *The proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS.*	**Mitigation Measure IV.C-1a** If grading/construction/demolition-related activities are to occur within 300 feet of Adobe Creek or the Purissima Creek, a pre-construction/grading/demolition survey for red-legged frogs, tiger salamanders and western pond turtles shall be conducted by a qualified biologist. The survey area would include the creek and/or drainage as well as the grading/construction/demolition zone within 300 feet of the creek/drainage. If California red-legged frogs, California tiger salamander, or western pond turtles were to be observed within the surveyed creek/drainage, the District shall install temporary fencing adjacent to the riparian zone of the creek/drainage that is designated to	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	prevent red-legged frogs, California tiger salamanders or western pond turtles from leaving the riparian zone and entering area where grading/construction would occur. The fencing would extend along the creek drainage for 1,000 feet above and below the construction zone, or to the Project site boundary. The fencing would be maintained and monitored by the District for the duration of the grading/construction period. If California tiger salamanders or western pond turtles are observed within the grading/construction zone, they shall be relocated by the monitoring biologist in coordination with CDFG, to a suitable area outside of the construction zone. Suitable areas would include nearby creeks and lakes with appropriate habitat (e.g., Adobe Creek, San Franciquito Creek, and Lake Lagunitas). If red-legged frogs are observed, grading/construction activities shall be postponed and the USFWS shall be consulted to determine the extent of potential impacts to individual frogs and to identify measures to avoid these impacts. The USFWS shall consider any direct or indirect impacts to individual frogs (including capture or translocation), to be a "take" under the FESA. Consultation with the USFWS will result in either a determination of the need to obtain a permit to allow this "take" or in the identification of measures such as trapping and translocation of red-legged frogs to avoid harm to these animals.	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	Mitigation Measure IV.C-1b To prevent the take of nesting native bird species, all clearing and grubbing of the Project site shall take place from September through February. Winter site clearing shall ensure that nesting birds are not present and impacted. If construction is scheduled or ongoing near the perimeter of the grading footprint during bird nesting season (March 1 to September 15), qualified biologists shall survey the area within 200 feet (or up to 300 feet depending on topography or other factors and 500 feet for raptors) of the grading activity to determine if grading is disturbing nesting birds. If nesting activity is being compromised, construction shall be suspended in the vicinity of the nest until fledging is complete. **Mitigation Measure IV.C-1c** Site development would potentially result in mortality of burrowing owls, should any be nesting on the site at the time of Project construction. Mitigation measures that protect burrowing owls from possible direct mortality or nest failure are warranted. Therefore, the Project applicant shall implement the following measures to ensure that burrowing owl mortality from Project construction is avoided.	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	Pre-construction Survey A pre-construction survey shall be conducted by a qualified biologist for Burrowing Owls within 30 days of the on-set of construction. This survey shall be conducted according to methods described in the Staff Report on Burrowing Owl Mitigation (CDFG 1995). All suitable habitats of the study area shall be covered during this survey. *Avoidance of Active Nest Burrows* If pre-construction surveys undertaken during the breeding season (February through August) locate active nest burrows within or near construction zones, these nests, and an appropriate buffer around them (as determined by a qualified biologist) shall remain off-limits to construction until the breeding season is determined over. Setbacks from occupied nest burrows of 250 feet where construction would result in the loss of foraging habitat shall be required. *Relocation* During the non-breeding season (August 31 through January 1), resident owls may be relocated to alternative habitat. The relocation of resident owls shall be according to a relocation plan prepared by a qualified biologist. Passive relocation shall be the preferred method of relocation. This plan must provide for the owl's relocation to nearby	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	lands possessing available nesting and foraging habitat. **Mitigation Measure IV.C-1d** The District shall monitor construction activities to ensure that incidental construction impacts on riparian vegetation and special-status wildlife species are avoided or minimized. Responsibilities of the construction biological monitor include the following: • Attend all pre-construction meetings to ensure that the timing and location of construction activities do not conflict with other mitigation requirements (i.e., seasonal surveys for nesting birds). Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas. • Discuss procedure for minimizing harm/harassment of wildlife encountered during construction with appropriate construction personnel. • Review/designate the construction area in the field with the contractor in accordance with the final grading plan. Haul roads, access roads, and on-site staging and storage areas shall be sited within grading areas to minimize degradation of creek and drainage habitat adjacent to these areas. If activities	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	outside these limits are necessary, they shall be evaluated to ensure no special-status species or stream habitat will be affected. • Conduct a field review of the staking (to be set by surveyor) designating the limits of all construction activity. Any construction activity areas immediately adjacent to riparian areas or other special-status resources (such as bird nests) may be flagged or temporarily fenced by the monitor, at his/her discretion • Periodically visit the site during construction to coordinate and monitor compliance with the above provisions. The monitor would be present on the site during and grading and/or construction activity within or immediately adjacent to areas of suitable habitat for sensitive wildlife species along Adobe Creek and other on-site drainages. If special-status are observed, the monitor shall halt all activities potentially affecting the animals and take the appropriate action (i.e., translocate the animal, consult with USFWS if a red-legged frog) to ensure that no take of the animal will occur. The implementation of Mitigation Measures IV.C-1a through IV.C-1d have been designed to protect plants and animals and their habitats and would reduce potential impacts related to candidate, sensitive, or	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	special-status species to a ***less-than-significant*** level.	
Impact IV.C-4 *The proposed Project would not interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*	**See Mitigation Measures IV.C-1a through IV.C-1d**	**Less than Significant**
CULTURAL RESOURCES		
Impact IV.D-1 *The proposed Project would not cause a substantial adverse change in the significance of an historical resource as defined in Section 15064.5.*	**Mitigation Measure IV.D-1a** The schematic plans of the Project are expected to evolve to a greater level of detail. As such, a qualified historic architect shall monitor the design, plans, and construction of the Project to ensure that the Project is compatible in height, scale, massing, design, materials, and color in accordance with the Secretary of the Interior's Standards and existing College architecture. To the extent feasible, landscaping features that contribute to the historic character of the potential district shall be maintained. **Mitigation Measure IV.D-1b** Trees that were part of the 1961 Campus Plan shall be retained rather	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	than replaced whenever possible. When replacement is necessary, the trees shall be replaced in kind. Historic campus plans provide information on the original design intent. Similarly, in keeping with The Secretary of the Interior's Standards, site furniture from the 1961 Campus Plan shall be repaired rather than replaced. Any new site furniture shall be consistently uniform throughout the campus and designed such that they are sympathetic to the simplified form, materials, and design of the 1961 campus site furniture, but not exact replications. Their designs shall refrain from historic interpretations. **Mitigation Measure IV.D-1c** New signage and lighting fixtures shall be constructed that reflect the defined architectural vocabulary of the 1961 campus but do not exactly replicate 1961 features.	
Impact IV.D-2 *The proposed Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.*	**Mitigation Measure IV.D-2a** If buried cultural or paleontological materials (e.g., bone, brick, etc.) are exposed during construction, work shall be halted in the immediate vicinity of the find until a qualified archaeologist can assess their significance.	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	Mitigation Measure IV.D-2b If the finds are determined to be significant, the archaeologist shall be permitted to remove the items in a professional manner for further laboratory evaluation.	
Impact IV.D-4 *The proposed Project would not disturb any human remains, including those interred outside of formal cemeteries.*	**Mitigation Measure IV.D-4** If human remains are unearthed during construction, no further disturbance shall occur until the Santa Clara County Medical Examiner-Coroner has made the necessary findings as to origin and disposition in accordance with California Health and Safety Code Section 7050.5. If the remains are determined to be those of a Native American, the Native American Heritage Commission (NAHC) in Sacramento shall be contacted before the remains are removed in accordance with Section 21083.2 of the California Public Resources Code.	**Less than Significant**
	NOISE	
Impact IV.E-1 *The proposed Project may result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.*	**Mitigation Measure IV.E-1a** The Project shall restrict construction and demolition activities to the hours of 7:30 A.M. to 6:00 P.M. Monday through Saturday.	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	Mitigation Measure IV.E-1b Construction and demolition activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels. **Mitigation Measure IV.E-1c** The use of those pieces of construction equipment or construction methods with the greatest peak noise generation potential shall be minimized to the extent feasible. Examples include the use of drills, jackhammers, and pile drivers. **Mitigation Measure IV.E-1d** Noise-generating construction activities whose specific location on the site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) shall be conducted as far as possible from the nearest noise-sensitive land uses, and natural and/or manmade barriers (e.g., intervening construction trailers) shall be used to screen propagation of noise from such activities towards these land uses to the maximum extent possible.	

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	Mitigation Measure IV.E-1e Equipment warm-up areas, water tanks, and equipment storage areas shall be located a minimum of 150 feet from the active classroom and laboratory uses. **Mitigation Measure IV.E-1f** The Project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices. **Mitigation Measure IV.E-1g** Flexible sound control curtains shall be placed around drilling apparatuses and drill rigs used within the Project site, if sensitive receptors are located at, or within, 100 feet. **Mitigation Measure IV.E-1h** Two weeks prior to the commencement of construction at any of the project sites, notification must be provided to students and faculty disclosing the construction schedule, including the various types of activities and equipment that would be occurring throughout the duration of the construction period.	
Impact IV.E-2 *The proposed Project would not result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.*	**Mitigation Measure IV.E-2a** The District shall require by contract specifications that construction staging areas along with the operation of earthmoving equipment on	**Less than Significant**

Table II-1 (Continued)
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	the project site be located as far away from vibration-sensitive sites as possible. Contract specifications shall be included in the project construction documents, which shall be reviewed by the District prior to issuance of a grading permit.	

III. PROJECT DESCRIPTION

A. OVERVIEW OF ENVIRONMENTAL SETTING

This section of the Draft EIR provides a brief overview of the Project site's existing regional and local setting. Additional descriptions of the environmental setting as it relates to each of the environmental issues analyzed in Section IV (Environmental Impact Analysis) of this Draft EIR are included in the environmental setting discussions contained within Sections IV.B through IV.E.

Regional and Local Setting

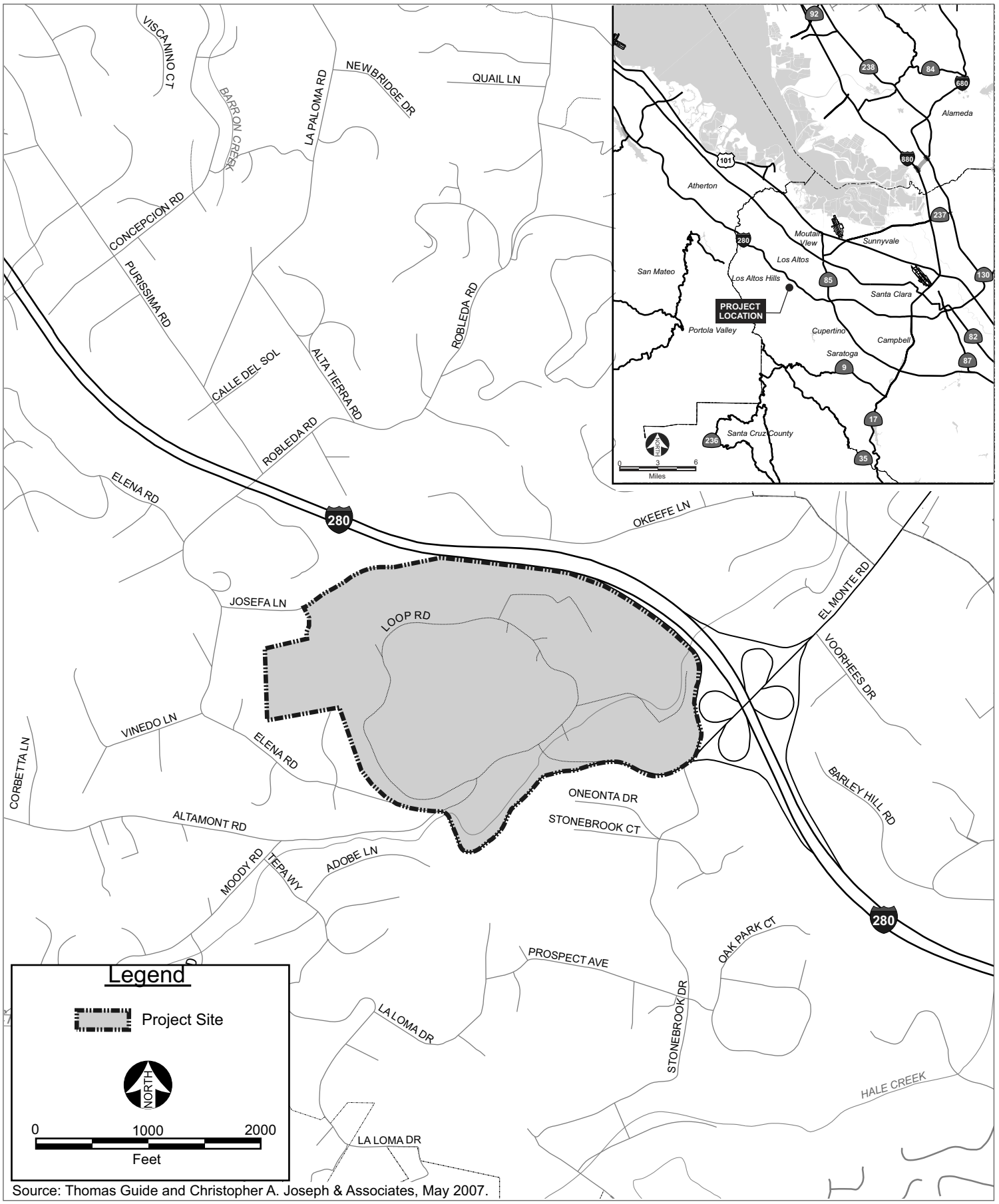
The Foothill College Campus (Project site) is located in the Town of Los Altos Hills in Santa Clara County, approximately thirty-five miles south of San Francisco and twenty miles north of downtown San Jose, on the San Francisco peninsula. Foothill College (College) began operations on a temporary campus on El Camino Real in Mountain View in 1958 as part of the newly formed Foothill Junior College District. The main campus, located in Los Altos Hills, opened in September 1961. Serving more than 18,000 day and evening students, the College is a multicultural institution committed to meeting the evolving educational, economic and cultural needs of an increasingly technology-based global community.

The Project site is immediately southwest of Interstate 280 (I-280) and is bounded by El Monte Road to the south, Crescent Lane and Elena Road to the west, and Josefa Lane to the northwest. Local access is currently provided from El Monte Road and regional access is provided from I-280. Figure III-1 illustrates the regional and Project site location. An aerial photograph of the Project site is shown in Figure III-2.

Project Site

The Project site is almost entirely developed with buildings, parking lots, roadways, pedestrian and bicycle facilities, athletic fields, and landscaping. The Project site is comprised of approximately 136 acres. Existing instructional buildings are located primarily in the central core of the campus and are surrounded by College Loop Road and parking lots. Physical education facilities (pool, gym, and locker rooms) are located on the eastern edge of the campus, outside of College Loop Road. Existing sports facilities are located in the southeast, northeast, and northwest corners of the site and include the baseball/softball/soccer field, stadium (football/track), tennis courts, and a swimming pool. The Assessor's Parcel Number (APN) for the Project site is 175-41-10. An existing map of the Project site is shown in Figure III-3. Views of the Project site and a corresponding photo location map are shown in Figure III-4 through Figure III-8.

Existing building space at the College totals 304,340 square feet of assignable space and 431,684 square feet of gross space. Table III-1 shows the existing campus buildings, year built, and assignable and gross square footage.



Source: Thomas Guide and Christopher A. Joseph & Associates, May 2007.

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Figure III-1
Regional and Project Vicinity Map

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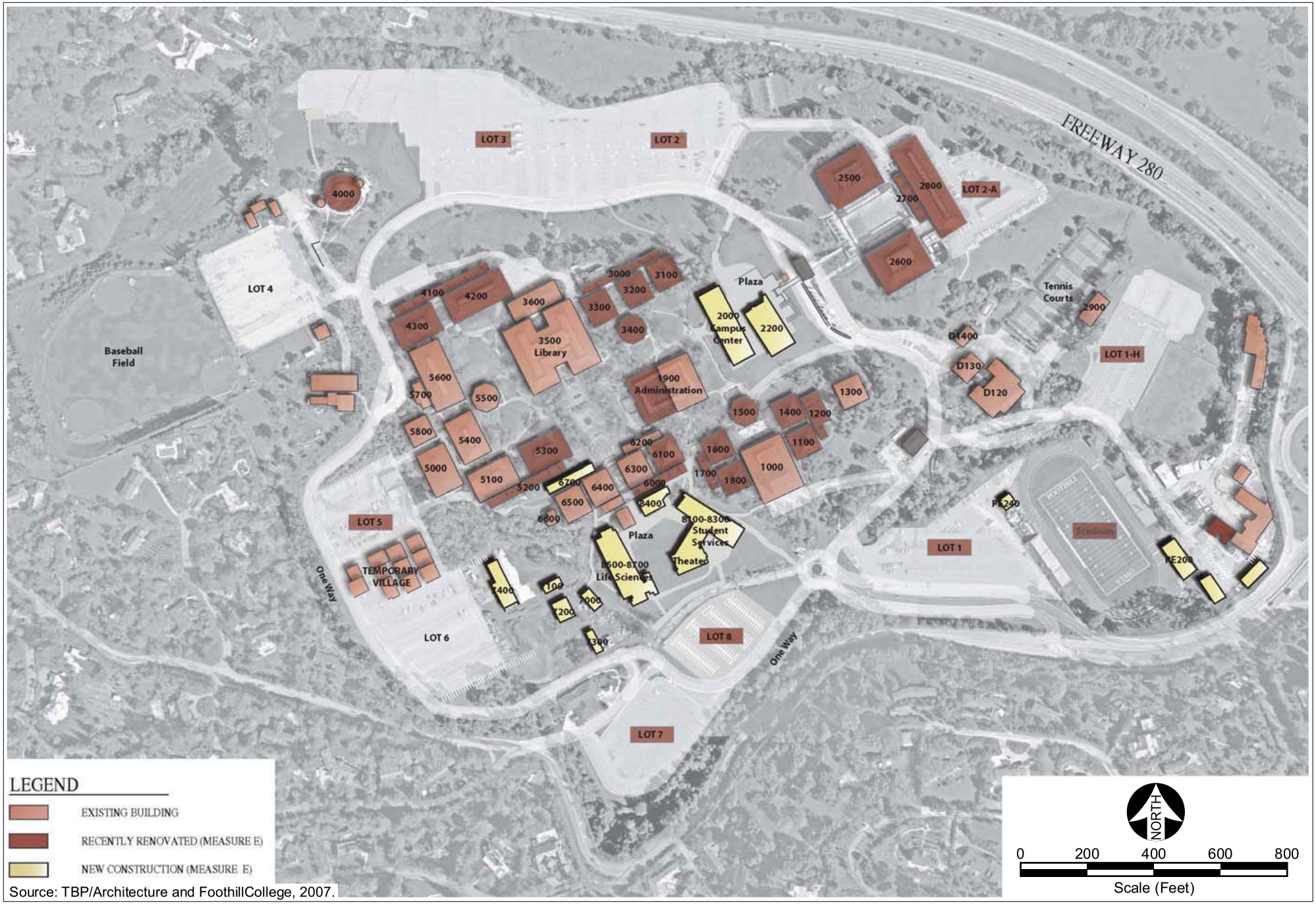
Figure III-2
Foothill College Campus Aerial Photograph



Source: TBP/Architecture and FoothillCollege, 2007.

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Figure III-3
Existing Map of Foothill College Campus

View 1: Looking east across Loop Road and Parking Lot 1.

View 2: Looking west toward wooden sculpture and Building 3400.

Source: Christopher A. Joseph & Associates, 2008.

View 3: Looking southwest toward open area and Library.

View 4: Looking northeast toward Parking Lot 2.

Source: Christopher A. Joseph & Associates, 2008.

View 5: Looking northwest toward Krause Center for Innovation.

View 6: Looking southwest toward Building 5300.

Source: Christopher A. Joseph & Associates, 2008.

View 7: Looking southwest toward Building 1000.

View 8: Looking west across Parking Lots 2 and 3.

Source: Christopher A. Joseph & Associates, 2008.

View 9: Looking southwest across Parking Lot 2.

View 10: Looking southwest across the softball/soccer field.

Source: Christopher A. Joseph & Associates, 2008.

Table III-1
Existing Foothill College Buildings

Building Number	Building Name	Year Built	Assignable Square Feet (ASF)	Gross Square Feet (GSF)
1900	Administration	61	13,047	23,209
1000	Smithwich Theater	61	16,981	24,460
3200	BSS General Classrooms	61	4,015	5,801
3100	Travel Careers	61	4,007	5,801
300	BSS Division Offices	61	3,266	5,886
1300	Choral Rehearsal Hall	64	3,317	5,496
4200	CTIS General Classrooms	61	11,676	14,797
4300	Computer Center	61	7,658	10,192
4100	CTIS & PSME Division Offices	61	4,341	6,650
2900	Field House	72	2,836	3,974
1600	Art Classrooms	61	3,602	5,239
1800	Art Classrooms	61	3,568	5,284
1400	Studio Theater	61	3,542	5,260
1100	Band Room	61	3,693	5,460
1700	FA Division Offices	61	2,029	2,699
1200	Practice Rooms	61	4,261	6,135
1500	Appreciation Hall	61	2,175	4,318
5000	Forum	65	7,040	11,113
5700	Ornamental Horticulture	71	2,614	3,050
4400	Lath House	71	389	1,681
4400	Greenhouse	71	2,416	2,618
4400	Horticulture Equipment Storage	58	75	893
6300	Language Lab	61	3,922	5,752
6400	LA General Classrooms	61	3,994	5,752
6500	LA General Classrooms	61	3,988	5,752
6000	LA Division Offices	61	3,430	5,771
3500	Library and ISC	61	44,531	54,455
6200	Radio Station	61	2,618	3,092
6100	Photography	61	3,827	5,752
5300	Health Technology	61	7,729	10,221
5100	Biology	61	7,271	10,244
5200	BHS Division Offices	61	3,316	5,962
2600	Main Gym	61	16,128	19,322
2500	Auxiliary Gym	61	16,051	20,722
2800	Locker Rooms	61	17,444	23,596
2700	PE Division Offices	61	2,195	3,469
5500	PSME General Classrooms	61	2,903	4,133

Table III-1 (Continued)
Existing Foothill College Buildings

Building Number	Building Name	Year Built	Assignable Square Feet (ASF)	Gross Square Feet (GSF)
5400	Physics	61	7,502	10,199
5600	Chemistry	61	11,154	15,277
3400	BSS General Classrooms	61	2,838	4,318
3300	BSS General Classrooms	61	4,004	5,801
4000	Astronomy Observatory	64	732	1,012
4000	Center For Innovation	68	11,196	17,111
4400	Horticulture Classroom	75	600	716
5800	Television Studio	61	2,396	4,254
3030	Grounds & Custodial	72	1,425	1,511
4500	Veterinary Technology	76	1,309	1,533
6600	Japanese Cultural Center	81	641	972
	Footbridge & Transit Center	61	0	3,970
2800	Locker Rooms	61	1,066	2,927
4050	STEP 2	80	882	1,030
2602	PE Snack Bar & Storage	72	1,119	1,322
4052	Print Shop	91	963	1,229
4057	STEP 1	91	820	987
2910	Stadium Snack Bar	72	529	1,088
2910	Stadium Press Box	88	620	742
5910	Swing Space	00	858	1,030
6700	Health Technologies	03	2,607	3,701
2920	Field Locker Rooms	06	4,407	5,076
2912	Stadium Restrooms	06	102	1,867
Current Total			**304,340**	**431,684**

Source: Foothill-De Anza Community College District, 2008.

The College is owned and operated by the Foothill-De Anza Community College District (District). The Project site also includes buildings used by the District to provide services to the College and to De Anza College in Cupertino. The District buildings on the Project site are located in two areas: the District Administration Cluster northwest of the stadium, and the Plant Services Cluster east of the stadium (between the stadium and I-280). Existing District building space on the Project site totals 65,339 gross square feet, 50,646 of which are assignable space. Existing District building square footages are shown in Table III-2.

Table III-2
Existing District Buildings

Building Number	Building Name	Year Built	Assignable Square Feet (ASF)	Gross Square Feet (GSF)
D130	Griffin House	1901	5,953	7,486
D120	District Offices	1969	8,856	13,348
D140	District Annex		1,630	2,361
D170	Plant and Material Services	1962	9,048	11,132
D160	Plant Services Annex	1920	3,345	5,028
D182	Mechanical Storage	1930	1,179	1,389
D181	Paint Shop	1965	1,666	2,087
D180	Old Barn	1970	3,068	3,299
D100	Carriage House	1901	3,582	5,333
D183	New Barn	1990	5,546	6,062
TS	Temporary Storage		840	982
T-7	Construction Trailer	2002	596	664
D210	Mechanics Shop	2005	673	750
D191	Service Shops 1	2006	2,178	2,528
D201	Service Shops 2	2006	2,486	2,890
Current Total			**50,646**	**65,339**

Source: Foothill-De Anza Community College District, 2008.

Surrounding Land Uses

The Project site is located in a suburban to rural residential area. Surrounding land uses include I-280, to the north, single-family residential to the south and east, and rural residential uses to the west. Rural residential uses to the west (and northwest) are sparsely developed with houses located on large lots. Single-family residential uses to the south and southeast are more intensely developed, but separated from the College by El Monte Road.

B. FOOTHILL-DE ANZA COMMUNITY COLLEGE DISTRICT 2007 FACILITIES MASTER PLAN

The College and De Anza College (located in Cupertino) are owned and operated by the District. The District recently prepared a master plan for both colleges: the Foothill-De Anza Community College District 2007 Facilities Master Plan (Master Plan). The Master Plan includes two sections: the Foothill College 2007 Facilities Master Plan and De Anza College 2007 Facilities Master Plan. The Master Plan is bound together in one document to represent the District Facilities Master Plan, but can also be separated into two standalone documents to serve as planning tools and assist in decision making at each

College. This EIR addresses only the Foothill College 2007 Master Plan, which, for the purposes of this EIR, is considered the Project.

Planning Background

1999 Foothill De Anza Community College District Facilities Master Plan

In 1999 voters approved the passage of a $248 million District-wide bond (Measure E) to renovate as well as construct new facilities. The District previously prepared the 1999 Foothill De Anza Community College District Facilities Master Plan, which provided direction for implementing Measure E new construction and renovations on the campuses of both colleges. New facilities constructed under Measure E were driven by the need to meet the enrollment, pedagogical and social needs of the campus community. Table III-3 shows the Measure E projects and building square footage on the Project site.

Table III-3
Measure E Projects

Building Number	Building Name	Year Built	Assignable Square Feet (ASF)	Gross Square Feet (GSF)
2000-2300	Campus Center	07	31,815	46,910
8000-8600	Lower Campus Complex	07	59,134	89,972
7400	Central Plant	06	0	1,680
Total			**90,949**	**138,562**

Source: Foothill-De Anza Community College District, 2008.

2007 Foothill De Anza Community College District Facilities Master Plan

In June 2006 the voters approved a $490.8 million District-wide bond (Measure C) to continue the renovation and replacement of aging facilities as well as upgrade technology on the campus. The Master Plan is intended to inform the direction of Measure C. The Master Plan is driven by the demands of future growth, instructional and student support program analyses, and the expectations of a technologically savvy student community, and will serve the unmet needs of the 1999 Foothill De Anza Community College District Facilities Master Plan. The Master Plan and accompanying illustrations provide a vision of the recommendations for campus development and renovations over the next five-to-ten year period.

The Master Plan is the result of a participatory planning process involving several members of the District and each of the colleges. The process began at the District level with the review of a number of previous planning studies including:

- 2006 Facilities Master Plan Update
- 2006 State of the College
- 2005 Educational Master Plan
- 2004 District Planning Guidelines
- 2001 Foothill College Master Plan
- 1999 Foothill De Anza Facilities Master Plan

Each college then implemented a planning process that included the analysis of a number of factors including:

- Results of Measure E Bond Program
- Updated Educational Planning Forecasts
- Site and Facility Needs (at the completion of Measure E)

Based on the review and analysis, the colleges defined their Facilities Master Plan goals and explored a series of options for future development. The recommendations were presented in the Master Plan.

Recent Project History

In September 2007, the Lead Agency published and circulated the Notice of Preparation (NOP) and Initial Study for public review, which are included in Appendix A to this Draft EIR. The NOP and Initial Study were made available for a 30-day public review period starting on September 5, 2007 and ending on October 5, 2007. Written comments were requested during the public review period and a public scoping meeting was held on September 18, 2007. Comments submitted in response to the NOP are included in Appendix B.

The District received comments on the Project from local agencies and the public on various environmental areas of concern. In response to those comments, the District has chosen to modify the Project from what was originally proposed and studied in the Initial Study. These revisions include eliminating the proposed realignment of the Loop Road to the outer edge of campus and relocation of the proposed Physical Sciences and Engineering Center (PSEC). Because the Loop Road realignment is no longer a part of the Project and the Loop Road will remain in its current location, the proposed location of the PSEC was revised to an area south of Parking Lot 4. Two pedestrian connections/footbridges over the Loop Road have been added to the Project in Parking Lot 3 and from the PSEC. Additionally, the expansion of Parking Lot 4 has been reduced from 2.25 acres to 0.5 acres to allow for the PSEC. All other project components as described in the Initial Study remain the same. The 2.25-acre Parking Lot 4 would be resurfaced and expanded to approximately 2.75 acres in size to add up to 50 additional parking spaces.

Therefore, the analysis of less than significant impacts as presented in Section IV.A, Impacts Found to Be Less Than Significant, has been revised from the analysis of the Project provided in the Initial Study to accurately reflect the revised project description.

C. PROJECT CHARACTERISTICS

The Project proposes construction, renovation, and site improvement projects on the Project site to accommodate an estimated increase in enrollment at the College of approximately 2,839 students over the next ten years. The Project proposes the construction of two buildings providing approximately 62,500 square feet of building space, including approximately 41,000 square feet of assignable space. Table III-4 shows proposed building square footage that would be constructed under the Project. The Foothill College Master Plan is shown in Figure III-9.

Table III-4
2007 Facilities Master Plan Construction

Building Name	Year Built	Assignable Square Feet (ASF)	Gross Square Feet (GSF)
Measure C Construction			
Physical Sciences and Engineering Center	2010	37,040	56,985
Scene Shop	2011-12	4,328	5,511
Total 2007 Facilities Master Plan Construction		**41,368**	**62,496**
Source: Foothill-De Anza Community College District, 2008.			

Once the Project is completed, building space on the Project site would total approximately 699,000 square feet, including approximately 487,000 square feet of assignable space. Total building square footage on the Project site upon completion of the Project is shown in Table III-5.

Circulation and parking improvements include improvements to the Loop Road and PE Access Road, various circulation improvements and three footbridge connections to reduce traffic conflicts and improve pedestrian and bicycle safety, parking lot expansion and resurfacing, and the addition of approximately 240 parking spaces.

Site improvements include various utility, landscaping, signage, lighting, and site improvements and upgrades; renovation of sport facilities and campus buildings; and ongoing Americans with Disabilities Act (ADA) improvements. Some new construction projects will provide the opportunity to replace or renovate existing spaces. Proposed renovations will support recommended program changes and/or accommodate the secondary effects that occur as a result of building demolition and relocation into new facilities. All facilities would be developed within the existing Foothill College campus boundaries.

Table III-5
Proposed Foothill College Building Square Footage

Buildings	Assignable Square Feet (ASF)	Gross Square Feet (GSF)
Existing and Approved Buildings		
Total Current Foothill College Buildings	304,340	431,684
Total Current District Buildings	50,646	65,339
Measure E Projects	90,949	138,562
Total Existing and Approved Building Square Footage	445,935	635,585
Project Buildings		
Total Project Buildings	41,368	62,496
Total Building Square Footage at the End of Project	**487,303**	**698,585**
Source: Foothill-De Anza Community College District, 2008.		

Building Construction

- **Physical Science**s **and Engineering Center.** A new two-story approximately 57,000 square foot Physical Sciences and Engineering Center would be constructed to meet the instructional and support space requirements of chemistry, physics, engineering and nanotechnology.
- **Scene Shop**. A new one-story approximately 5,500 square foot Scene Shop would be constructed.

Roadway Improvements

- **Campus-Wide Circulation Improvements.** Construction to improve vehicular, pedestrian and bicycle traffic flow and traffic safety would take place at various sections of Loop Road. Improvements would include lighting, guard rails, crossings, curbs, lane markings, resurfacing, and changes in traffic patterns.
- **PE Access Road Improvements.** The approximately 12-foot wide PE Access Road would be widened to 20-feet wide and re-paved to safely accommodate vehicles, or provided with a separate pedestrian pathway.

Source: TBP/Architecture and Foothill College, 2008.

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Environmental Planning and Research

Figure III-9
Foothill College Master Plan

Parking Lot Improvements

- **Parking Lot 1 Pedestrian Footbridge.** A pedestrian connection would be developed to span Loop Road to provide a pedestrian connection between the parking lot and the campus pedestrian pathway that traverses the slope and provides access to Building 1000. This connection would consist of a set of stairs and an elevator housed in a core that attaches to a skyway spanning the road. The skyway would connect to the main campus pathway system and would provide ADA accessibility to the campus core while eliminating traffic/pedestrian conflicts on the Loop Road.
- **Parking Lot 1-H.** The existing 1.25-acre Parking Lot 1-H would be resurfaced and expanded to 2 acres in size to add 140 additional parking spaces. The Lot 1H expansion would include an extension of existing bioswales to infiltrate stormwater.
- **Parking Lot 2 and 3 Security Improvements.** Planters and barriers would be installed to prevent illegal and unsafe use of lots. Parking Lot 2 and 3 would be reslurried and restriped. No additional parking spaces would be constructed in Parking Lot 2 and 3.
- **Parking Lot 2 and 3 Pedestrian Footbridge.** A pedestrian connection would be developed to span Loop Road to provide a pedestrian connection between the parking lots and the campus pedestrian pathway that traverses the slope and provides access to the central campus area. This connection would consist of a set of stairs and an elevator housed in a core that attaches to a skyway spanning the road. The skyway would connect to the main campus pathway system and would provide ADA accessibility to the campus core while eliminating traffic/pedestrian conflicts on the Loop Road.
- **Parking Lot 4.** The 2.25-acre Parking Lot 4 would be regraded, resurfaced and expanded to approximately 2.75 acres in size to add up to 50 additional parking spaces. Bioswales would be constructed to match lot improvements made previously under Measure E, consisting of planted infiltration strips between rows of parking.
- **Parking Lot 4 Pedestrian Connection/Footbridge.** A pedestrian connection would be developed to span Loop Road adjacent to the PSEC to provide a pedestrian connection between the Center and the campus pedestrian pathways near Buildings 4300 and 5600.
- **Parking Lot 5/6.** Parking Lot 6 would be resurfaced and restriped to add up to 50 additional parking spaces**.** Bioswales would be constructed to match lot improvements made previously under Measure E, consisting of planted infiltration strips between rows of parking.

Site Improvements

- **Utility Improvements.** The main line irrigation system would be improved. Some storm drains around buildings would be replaced campus-wide, including the restoration of infiltration trenches for roof drain water. Bird barriers on buildings would be replaced. Fire alarm systems would be upgraded. Photovoltaic arrays campus-wide would be installed. Install wireless

infrastructure campus-wide. Utilities campus-wide would be upgraded and minor repairs to campus fountain would be made.

- **Campus-Wide Landscaping and Site Improvements.** Some non-native Eucalyptus trees would be removed, preventative maintenance of existing campus oak trees would be performed, and diseased trees would be culled, as required. New trees, including oaks and other native species, would be installed campus-wide. Campus site furniture would be improved. Landscape renovations would be undertaken and would improve infiltration in what are now compacted soil areas, mostly in the central campus area.
- **Signage, Wayfinding, and Lighting.** Additional signage throughout the campus and pedestrian and exterior lighting would be installed.
- **Campus-Wide Americans with Disabilities Act Improvements.** Phase 2 of removal of architectural barriers to accommodate disabled users.
- **Soccer, Baseball and Softball Complex.** Existing fields at the northwestern portion of the campus would be renovated to include new artificial turf and additional support facilities would be constructed, including dugouts, restrooms, grounds maintenance facility, bleachers and a concession stand.
- **Tennis Court Improvements.** Tennis courts would be resurfaced, and fences would be repaired.

Renovation

- **District Offices (D120 Building).** The D120 Building, currently used as the District Offices, would be renovated.
- **TV Center (5800 Building).** The existing Building 5800, currently used as instructional support space would be renovated, including minor improvements to roofs and interior spaces.
- **Japanese Cultural Center (6600 Building).** Minor renovations and improvements, including roofs and interior renovations.
- **Stadium.** The existing press box and support system would be removed and new facilities constructed on the opposite side of the field. The existing snack area would be renovated to meet current codes and for ADA accessibility.
- **Swim Pool Area Storage.** Minor renovations to storage building.
- **Campus-Wide Building System and Infrastructure Upgrades.** Building infrastructure upgrades that began under Measure E would be continued, including upgrades to mechanical, electrical and plumbing systems.

Measure E Carryover Projects

The Master Plan shows the proposed changes of use and existing buildings to be renovated listed below. These activities were proposed as Measure E projects and are described as secondary and tertiary effects

in the Master Plan. The impacts of these activities were previously analyzed in the 2002 Foothill College Projects Draft EIR and are listed here only for completeness; therefore, no additional analysis is included in this EIR for these activities.

Proposed Change of Use

- **Adaptive Learning Center (5400 Building).** Renovation of the 5400 Building to accommodate all of the College's Adaptive Learning programs into a single location.
- **Learning Support Center (5600 Building).** Renovation of the 5600 Building to provide space for the Learning Support Center.
- **Radio Station (5700 Building).** Renovation of the 5700 Building to accommodate the campus radio station (KFJC).
- **Language Arts Office/Classrooms (6200 Building).** Renovation of the 6200 Building to provide space for the Language Arts Division Office and two general classrooms.

Existing to be Demolished

- Building 1300

Existing to be Renovated

- Building 1000
- Building 1900 (Administration)
- Building 2900
- Building 3500 (Library)
- Building 5000
- Building 5100
- Building 5300
- Building 5500
- Building 6300
- Building 6400
- Building 6500

Utilities and Grading

Specific grading plans would be developed as each project is designed. Some of the areas proposed for development are relatively flat, while other areas are sloped. Drainage from the proposed facilities would be routed to connect to the existing drainage system. Water and wastewater lines for the proposed facilities would connect to the existing campus lines or to the City of Los Altos systems.

Project Phasing

The Project as proposed in the Master Plan presents an overall picture of the future developed campus and includes proposed sites for new facilities, recommendations for renovations of existing facilities, and site development projects. While drawings in the Master Plan appear specific, the forms are conceptual

sketches that highlight the location and purpose of improvements. The final design of each site and facility project will take place as projects are funded and detailed programming and design occurs. The anticipated implementation period for the Project is 2008-2015.

D. PROJECT OBJECTIVES

The Master Plan addresses the primary goals identified during the planning process:

- Renovate aging facilities to address current educational needs and technological advances.
- Provide additional instructional space for growing programs including chemistry, physics, nanotechnology, life and health science programs, adaptive learning, and learning communities.
- Ensure the safety of students, faculty and staff through the development of safe and accessible vehicular and pedestrian paths.
- Consolidate related programs into "clusters" in order to maximize resources and to provide easier access to students, faculty and staff.
- Enhance the overall appearance of the campus by replacing temporary buildings (portables, modulars, etc.) with permanent facilities.

E. DISCRETIONARY ACTIONS

As defined by CEQA, a Lead Agency is the public agency with the principal responsibility for carrying out or approving a project. The District is the Lead Agency for approval of the Project. The District has held public hearings on the Master Plan and reviewed and approved the Master Plan that is the subject of this EIR. Upon completion of the EIR process, the District will certify the Final EIR for the College. Specific development projects will be reviewed for consistency with the Master Plan prior to start of construction.

A list of the required discretionary permits and approvals that may be required is shown in Table III-6.

Table III-6
Project Approvals

Agency/Provider	Permit/Approval
Foothill-De Anza Community College District	• Certify Addendum EIR
Division of the State Architect (DSA)	• Approval of buildings, handicap accessibility, fire, and life safety
City of Los Altos	• Approval for sewer
Santa Clara Valley Fire Department	• Approval of fire suppression systems
Santa Clara Valley Water District	• Water Supply
Purissima Hills Water District	• Approval for new water hook-ups
California Transportation Department	• Approval for proximity to I-280
Regional Water Quality Control Board	• Approval of National Pollutant Discharge Elimination System (NPDES) General Permit
	• Storm Water Pollution Prevention Plan (SWPP)

Source: Foothill-De Anza College District, 2008.

IV. ENVIRONMENTAL IMPACT ANALYSIS
D. CULTURAL RESOURCES

INTRODUCTION

This section of the Draft EIR provides a description of historic and cultural resources within the existing 136-acre Foothill College campus, information on regulations relating to these issues, and an analysis of potential impacts related to historic and cultural resources resulting from implementation of the Foothill College Facilities Master Plan. Information used to prepare this section was taken from the *Foothill College Projects Draft Environmental Impact Report* – March 2002, and the *Foothill College Historic Resource Evaluation*, Draft - April 2008 prepared by Architectural Resources Group (ARG) (included as Appendix D to this Draft EIR).

ENVIRONMENTAL SETTING

Ethnographic Background

The earliest known residents of the area that would become Los Altos Hills were the Ohlone Indians. The Central California region extending from San Francisco south to Big Sur lies within the ethnographic territory of the Ohlone Indians. The Ohlone are believed to have occupied the region since 500 A.D., and speakers of the Hokan language previously occupied at least part of the region. The Project area lies within the currently recognized ethnographic territory of the Costanoan (often called Ohlone) Linguistic group.

The Costanoan followed a hunter-gatherer subsistence pattern with partial dependence on the natural acorn crop and utilized only the native flora and fauna, with the exception of one domesticate, the dog. The abundance and high quality of natural resources allowed them to settle in semi-sedentary villages. The Costanoan were organized in triblets, autonomous social units composed of 100 to 250 members. A triblet refers to one or more permanent villages with smaller villages in relatively close proximity. Parties would leave major villages at different times of the year to obtain various resources from within the tribal territory. Occupation sites can be expected most often at the confluence of streams, other areas of similar topography along streams, or in the vicinity of springs. These original sources of water may no longer be present or adequate. Also, resource gathering and processing areas, and associated temporary campsites, are frequently found on the coast and in other locations containing resources utilized by the group. Factors that influence the location of these sites include the presence of suitable exposures of rock for bedrock mortars or other milling activities, ecotones (zones of transition between vegetation communities), the presence of specific resources (oak groves, marshes, quarries, game trails, trade routes, etc.), proximity to water, and the availability of shelter. Temporary camps or other activity areas can also be found along ridges or other travel corridors.

Prehistoric Resources

According to the 2002 *Foothill College Projects Draft Environmental Impact Report*, there appear to be no formally prepared archaeological field studies for the Project site and there are no prehistoric archaeological sites on the site or in the Project vicinity. There were no archaeological sites recorded on the Project site. The field inspection of the open lands inside the Project site revealed the presence of potential cultural resources deposits associated with the Tea House site. The visual inspection also identified areas now covered by parking lots, landscaping and/or buildings that have the potential for containing additional cultural materials.

Historic Background

By the late nineteenth century, the land on which the campus now sits was part of two Mexican land grants: the Rancho Purisima Concepcion, on the north side of what is now called Adobe Creek, and Rancho San Antonio, to the south. Jose Gorgonio and his son Jose Ramon, owners of Purisima Concepcion, sold the property to Juana Briones de Miranda in 1844. Martin Murphy Jr. acquired 2,800 acres of the property in 1857 and gave the land to his daughter Elizabeth Yuba Murphy upon her marriage to William Taaffe. The Taaffes subdivided the land into smaller parcels and sold one of these portions to Daniel T. Ames, who operated a fruit ranch called the Lake Grove on the property at the turn of the century. In 1901 Ames further subdivided the land into two parcels; the western 60 acres he sold to Henry F. Dana, and the eastern 98 acres to Willard M. Griffin. The Dana property was eventually owned by Grace Holt, who married Ralph Lohman.

The newly-formed Foothill-De Anza Community College District (District) attempted to buy the remaining 51 acres of the Lohman Estate in April 1959. John Lohman rejected their offer, but the District obtained the property by eminent domain. The District had already negotiated the purchase of the neighboring Griffin Estate, and in 1961 the District finalized the acquisition of the two properties, which included 122 acres, two houses (the Lohman and Griffin residences), carriage house, barn, and gazebo.

Physical Setting

History of Foothill College Buildings

The College was founded in 1957 during the post World War II period when numerous community colleges were built throughout the United States, particularly in California. The College's first classes were held at the Highway Grammar School on El Camino Real in Mountain View on September 15, 1958 under the leadership of the College's new president, Dr. Calvin C. Flint. The school was accredited the next year, in March 1959. On May 20, 1958, voters in Santa Clara County approved a $10.4 million bond for a two-year college to accommodate 3,500 students. On September 15, 1958, the Board of Trustees selected the site in Los Altos Hills.

To design the new campus, the College hired Ernest J. Kump and Masten & Hurd, Associated Architects, and Sasaki, Walker & Associates, Landscape Architects. The team was charged with creating an entire

campus; the only existing buildings on the site were two residences and associated outbuildings. The site for the campus included two low hills separated by a ravine. The design of most of the campus buildings was based on the repetition of a three-dimensional architectural unit, the "modular space unit," a 60- by 68-foot volume. The campus was (and still is) known for this unit approach. The buildings were designed with massive concrete corner buttresses supporting large roofs with crested parapets and very wide, flared eaves. The walls were fitted with redwood panels or glazing. Circulation was accommodated on exterior walkways that bordered the buildings, and intimate courtyards provided transition spaces between buildings. The new College campus opened its doors September 5, 1961, to 3,500 day and 4,500 evening students.

Almost immediately, the design for the College attracted national attention. In 1960 the unbuilt project was given a Citation as part of the Progressive Architecture 7th Annual Design Awards. The campus has the unique distinction of receiving the only national American Institute of Architects First Honor Award awarded by the 1962 jury. The campus also received the American Institute of Architects Award of Merit in 1963 and Special Commendation in 1980.[1]

The *1961 Campus Plan* created an entire campus, including landscaping, circulation, and all the buildings necessary for a post-secondary educational institution. Stylistically, the thirty-six buildings and structures from the *1961 Campus Plan* were part of the Second Bay Tradition, a regional movement incorporating local materials, integration of outdoor spaces, and modern design principles. In the decades following the implementation of the *1961 Campus Plan*, several additional buildings were constructed including classrooms (1964 and 1965), an observatory (1964), and district headquarters (1969). Although similar in style, form, and materials to the 1961 buildings, these buildings deviated from the original building designs. For example, the overall form and materials of Building 5000 are very similar to the *1961 Campus Plan* buildings, however, instead of clerestory windows, the windows are tall and narrow, changing the overall emphasis of the exterior walls from horizontal to vertical.

The *1999 Foothill De Anza Community College District Facilities Master Plan* implemented construction projects approved and funded by voters in Measure E. The new facilities were needed to meet the increasing enrollment, pedagogical, and social needs of the campus community. Buildings constructed as part of this campaign, such as the Campus Center Complex and the Lower Campus Complex, diverge from the 1961 campus buildings in scale and form, but use compatible building materials such as wood shingles, concrete, and panels of glazing. The Campus Center Complex also utilizes a modified crested parapet roof form and overhanging eaves.

Previously Identified Historic Buildings

Currently there is one building, the Griffin House (and its associated Carriage House) on the Foothill College campus that is listed on the National Register. As the Griffin House is a National Register

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[1] *Foothill College, Early History, website: www.foothill.edu/news/fh-history, January 16, 2008.*

property, by default, it is also listed on the California Register of Historical Resources. The Griffin House was listed on the National Register in 1972. ARG's Historic Resource Evaluation for the 2001 Foothill College EIR found that the Old Barn at the east edge of campus appeared to be over fifty years old, but because it was been completely re-sided and altered, it did not retain integrity and was not eligible for listing.

1961 Campus Plan Resources

The Foothill College 1961 Campus Plan Historic Resources Survey prepared by ARG in July 2007 found that the buildings and landscape elements of the *1961 Campus Plan* appeared to be significant under National Register Criterion C (and corresponding California Register Criterion 3), districts, sites, buildings, structures, and objects that embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values. The College campus is an ensemble of site plan, buildings, and landscaping that are exceptionally valuable as representative of the work of masters, in this case Ernest J. Kump and Masten & Hurd, Associated Architects, and Sasaki, Walker & Associates, Landscape Architects. The campus design brought together these leading architects and landscape architects to create an integrated and harmonious campus, which has influenced architecture and landscape architecture for decades. Unlike many college campuses, the College was primarily built at one time according to a comprehensive campus master plan. The largely undeveloped site and recent creation of the college, gave these noted designers great latitude.

In architecture and site plan, the designers chose a Modern approach that departed from the classically inspired buildings and site planning principals of pre-war colleges. In designing the buildings, Kump employed his "space module" concept, an approach to campus planning he had been developing since the 1930s. Each structure was based on a 60-by-68 foot space module, a three-dimensional architectural unit and was self-sufficient with utilities housed in a crested parapet roof. Kump's design for the College is often considered one of his most notable projects. Drawing on their campus and master plan experience, Sasaki, Walker & Associates' scheme for the campus plan and landscaping was an "acropolis" – all educational buildings were located on the top of two connected hills. Pedestrian and vehicular traffic were separated, with cars limited to the lots at the base of the hills and the loop road. For landscaping, Peter Walker divided the campus into five zones, ranging from natural wild grass areas similar to the surrounding hills, undulating mounds and curvilinear walkways, and rectilinear courtyards between buildings.

The buildings and landscape features remaining intact from the *1961 Campus Plan* appear to be contributors to a potential historic district, with a period of significance the year of construction, 1961. The earlier buildings on the site, such as the Griffin House, do not represent the same design aesthetic or use. Similarly, buildings constructed after the original campus plan vary in details and relationship to the building groups. Neither the earlier buildings nor the additions to the campus would be district contributors. However, it should be noted that many of the post-1961 buildings are compatible with the district contributors in design, scale, and materials. The potential district boundaries align with those of

the original campus: El Monte Road to the south, Crescent Lane and Elena Road to the west, and Josefa Lane to the northwest.

Most of the buildings, structures, and landscape elements from the *1961 Campus Plan* have a high degree of integrity and clearly communicate the original design intent. Some, particularly the office blocks, have had additions or changes in fenestration but still appear to retain sufficient integrity to be considered district contributors. Only one 1961 structure, the Footbridge and Transit Center, has been altered to the degree that it does not appear to be a district contributor. A major elevator addition on the main elevation of the structure obscures the building. The landscape elements – overall layout circulation, walkways, and courtyards – were all part of the original design, retain a high degree of integrity, and are also potential historic district contributors. Campus buildings and structures that appear eligible as contributors to a potential National and California Register district are listed in Table IV.D-1 and displayed in Figure IV.D-1. Campus buildings and structures that appear ineligible as contributors to a potential National and California Register district are listed in Table IV.D-2.

The buildings and landscape of the *1961 Campus Plan* are currently 47 years of age. Ordinarily, properties that have achieved significance within the past fifty years would not be considered eligible for the National and California Registers. However, such properties will qualify if they are, "[a] property achieving significance within the past fifty years if it is of exceptional importance." According to the National Register Bulletin, "[i]t may be represented by a building or structure whose developmental or design value is quickly recognized as historically significant by the architectural or engineering profession." Given the immediate and extensive recognition the architecture and landscape architecture professions gave the *1961 Campus Plan*, the College appears to qualify. In addition, it is anticipated that projects funded by Measure C will be completed in the next five years, at which time the resources will be 51 years of age.

Regulatory Setting

Federal

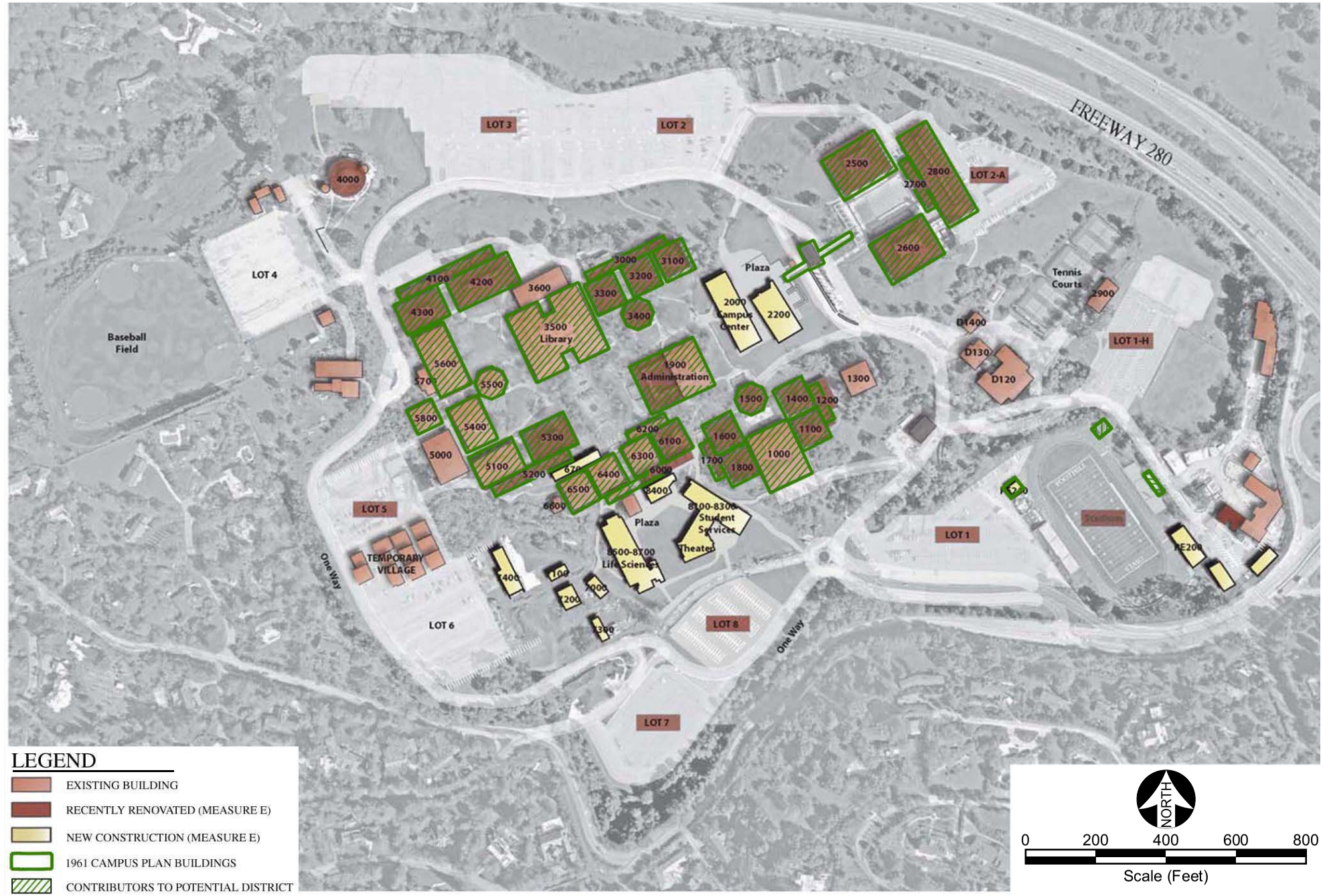
National Register of Historic Places

Primarily Section 106 of the National Historic Preservation Act (NHPA) of 1966 governs federal regulations for cultural resources. Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites, which are determined eligible for listing on the National Register of Historic Places (NRHP), which is the nation's master inventory of known historic resources. The NRHP is administered by the National Park Service. The NRHP includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

Table IV.D-1
Potential District Contributors, Buildings

Building No.	Current Building Name
1900	Administration
1000	Smithwich Theater
3200	BSS Classrooms
3100	Travel Careers
3000	BSS Division Offices
4200	CTIS General Classrooms
4300	Computer Center
4100	CTIS & PSME Division Offices
1600	Art Classrooms
1800	Art Classrooms
1400	Studio Theatre
1100	Band Room
1700	FA Division Offices
1200	IDEA Center & Practice Rooms
1500	Appreciation Hall
6300	Language Lab
6400	LA General Classrooms
6500	LA General Classrooms
6000	LA Division Offices
3500	Library and ISC
6200	Radio Station
6100	Photography
5300	Health Technology
5100	Biology
5200	BHS Division Offices
2600	Main Gym
2500	Auxiliary Gym
2800	Locker Rooms
2700	PE Division Offices
5500	PSME General Classrooms
5400	Physics
5600	Chemistry
3400	BSS General Classrooms
3300	BSS General Classrooms
5800	Television Studio
2800	Locker Rooms
	Stadium

Source: Architectural Resources Group, Foothill College Historic Resource Evaluation: Foothill College Facilities Master Plan, April 2008.



Source: Architectural Resources Group, 2008 and TBP/Architecture and Foothill College, 2007.

CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

Figure IV.D-1
Potential Historic District: Contributing Buildings

Table IV.D-2
Potential District Non-Contributors, Buildings

Building No.	Current Building Name
-	Footbridge and Transit Center
1300	Choral Rehearsal Hall
2602	PE Snack Bar & Storage
2900	Field House
2911	Stadium Snack Bar
2915	Stadium Press Box
2912	Stadium Restrooms
2920	Field Locker Rooms
3030	Grounds & Custodial
4001	Astronomy Observatory
4000	Center for Innovation
4057	STEP 2
4052	Print Shop
4050	STEP 1
4400	Horticulture Equipment Storage
4400	Lath House
4400	Greenhouse
4400	Horticulture Classroom
4500	Veterinary Technology
5000	Forum
5700	Ornamental Horticulture
5910	Swing Space
6600	Japanese Cultural Center
6700	Health Technologies
D100	Carriage House
D120	District Offices
D130	Griffin House
D140	District Annex
D160	Plant Services Annex
D170	Plant & Material Services
D180	Old Barn
D181	Paint Shop
D182	Mechanical Storage
D183	New Barn
D191	Services Shops 1
D201	Service Shops 2
D210	Mechanics Shop
T-7	Construction Trailer
T-S	Temporary Storage

Source: Architectural Resources Group, Foothill College Historic Resource Evaluation: Foothill College Facilities Master Plan, April 2008.

Resources (structures, sites, buildings, districts and objects) over fifty years of age can be listed on the NRHP. However, properties under fifty years of age that are of exceptional importance or are

contributors to a district can also be included on the NRHP. The following list of definitions is relevant to any discussion of the NRHP.

- A structure is a work made up of interdependent and interrelated parts in a definite pattern of organization. Generally constructed by man, it is often an engineering object large in scale.

- A site is defined as the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself maintains historical or archaeological value regardless of the value of any existing structure.

- Buildings are defined as structures created to shelter human activity.

- A district is a geographically definable area—urban or rural, small or large— possessing a significant concentration, linkage, or continuity of sites, buildings, structures, and/or objects united by past events or aesthetically by plan or physical development. A district may also comprise individual elements separated geographically but linked by association or history.

- An object is a material thing of functional, aesthetic, cultural, historical, or scientific value that may be, by nature or design, moveable yet related to a specific setting or environment.

There are four criteria under which a structure, site, building, district or object can be considered significant for listing on the NRHP. These include resources that:

1) Are associated with events that have made a significant contribution to the broad patterns of history (such as a Civil War Battlefield or a Naval Ship Building Center);

2) Are associated with the lives of persons significant in our past (such as Thomas Jefferson's Monticello or the Susan B. Anthony Birthplace);

3) Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (such as Frank Lloyd Wright's Taliesin or the Midwestern Native American Indian Mounds);

4) Have yielded or may likely yield information important in prehistory or history (such as prehistoric ruins in Arizona or the archaeological sites of the first European settlements in St. Augustine, Florida, or at the Presidio of San Francisco).

A resource can be considered significant in American history, architecture, archaeology, engineering, and culture. Once a resource has been identified as significant and potentially eligible for the NRHP, its historic integrity must be evaluated. Integrity involves seven aspects: location, design, setting, materials, workmanship, feeling and association. These aspects closely relate to the resource's significance and must be intact for NRHP eligibility.

When nominating a resource to the NRHP, the significance of that resource must be clearly evaluated and stated. A resource can be individually eligible for listing on the NRHP for any of the above four criteria. A resource can also be listed as contributing to a group of resources that are listed on the NRHP. In other words, the resource is part of an historic district, as defined above.

Districts are comprised of resources that are contributing and non-contributing. Some resources within the boundaries of the district may not meet the criteria for contributing to the historic character of the district but the resource is within the district boundaries.

State

California Environmental Quality Act

Historical Architectural Resources

Pursuant to Section 15064.5 of the *CEQA Guidelines*, a historical resource (including both built environment and prehistoric archaeological resources) is presumed significant if the structure is listed on the California Register of Historical Resources (CRHR) or has been determined to be eligible for listing by the State Historical Resources Commission. A historical resource may also be considered significant if the lead agency determines, based on substantial evidence, that the resource meets the criteria for inclusion in the CRHR. The criteria are as follows:

1. The resource is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. The resource is associated with lives of persons important in our past;

3. The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. The resource has yielded, or may be likely to yield, information important in prehistory or history.

Archaeological Resources

Pursuant to Section 15064.5 of the *CEQA Guidelines*, archaeological resources, not otherwise determined to be historical resources, may be significant if they are unique. Pursuant to Public Resources Code Section 21083.2, a unique archaeological resource is defined as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets one of the following criteria:

1. The resource contains information needed to answer important scientific questions and there is a demonstrable public interest in that information;

2. The resource has a special and particular quality, such as being the oldest of its type or the best available example of its type; or

3. The resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

A non-unique archaeological resource means an archaeological artifact, object, or site that does not meet the above criteria. Non-unique archaeological resources receive no further consideration under CEQA.

Human Remains

According to Section 15064.5 of the *CEQA Guidelines*, all human remains are a significant resource. Section 15064.5 of the *CEQA Guidelines* also assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are spelled out under Public Resources Code Section 5097.

Paleontological Resources

According to Appendix G of the *CEQA Guidelines*, a project could have a significant effect if it would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

California Historic Register

The State Historic Preservation Office (SHPO) maintains the California Register of Historic Resources (CRHR). The CRHR is the State's authoritative guide to significant California historical and archeological resources. The State Historical Resources Commission (SHRC) has designed this program for use by state and local agencies, private groups and citizens to identify, evaluate, register and protect California's historical resources. The CRHR program encourages public recognition and protection of resources of architectural, historical, archeological and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding, and affords certain protections under CEQA.

Types of resources eligible for nomination for listing in the CRHR are buildings, sites, structures, objects, or historic districts. All resources listed in or formally determined eligible for the NRHP are eligible for the CRHR. An historical resource must be significant at the local, state, or national level under one or more of the following criteria that are defined in the California Code of Regulations Title 14, Division 3, Chapter 11.5, Section 4850:

1) It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or

2) It is associated with the lives of persons important to local, California, or national history; or

3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or

4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

The CRHR criteria are similar to NRHP criteria. Any resource that meets the above criteria is considered a historical resource under CEQA.

Native American Consultation

Government Code Section 65352.3 requires local governments to consult with California Native American tribes identified by the California Native American Heritage Commission prior to the adoption or amendment of a general plan or specific plan. The purpose of this consultation is to preserve or mitigate impacts to cultural places.

Local

The College is part of the California Community College System and, therefore, the *Los Altos Hills General Plan* and the Los Altos Hills Municipal Code do not have jurisdictional authority over the Project site. However, the *Town of Los Altos Hills General Plan* is discussed below for informational purposes.

Town of Los Altos Hills General Plan

The Conservation Element (adopted April 26, 2007) of the *Los Altos Hills General Plan* establishes the goals, policies, programs, and guidelines to protect, manage, and conserve natural and community resources, including historic sites. Appendix A to the *Town of Los Altos Hills General Plan* includes an inventory of historic sites and structures in the Los Altos Hills planning area. The following are policies related to cultural resources:

Policy 10.1 Preserve, protect and enhance the historic resources of the planning area because they are unique and valuable assets for the community and region.

Policy 10.2 Promote community awareness of local history and historic resources for the education, pleasure and welfare of the people of the Town.

ENVIRONMENTAL IMPACTS

Methodology

In order to evaluate the eligibility and significance of the *1961 Campus Plan* resources, ARG conducted a survey of the entire Project site prior to this evaluation.

To be eligible for either the National or California Registers, properties must have either reached 50 years of age or be of "exceptional importance." The resources of the *1961 Campus Plan* are currently 47 years of age. It is anticipated that the projects of the 2007 Facilities Master Plan will be completed in the next five years, at which time the resources will be 51 years of age. In addition, as the college campus is widely recognized for its significance with/in the architecture and landscape architecture, it meets the "exceptional importance" criteria necessary for properties under fifty years of age.

Section 15065 of the *CEQA Guidelines* mandates a finding of significance if a project would eliminate important examples of major periods of California history or prehistory. In addition, pursuant to Section 15064.5 of the *CEQA Guidelines*, a project could have a significant effect on the environment if it "may cause a substantial adverse change in the significance of an historical resource." A "substantial adverse change" means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is impaired." Material impairment means altering "in an adverse manner those characteristics of an historical resource that convey its historical significance and its eligibility for inclusion in the California Register of Historical Resources."

Impacts to historical resources not determined to be significant according to any of the significance criteria described above are not considered significant for the purposes of CEQA. Generally, under CEQA, a project that follows The Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* or The Secretary of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Structures is considered to have mitigated impacts to a historical resource to a less-than-significant level (*CEQA Guidelines* Section 15064.5). Section 15126.4(b)(2) of the *CEQA Guidelines* notes that in some circumstances, documentation of a historical resource may not mitigate the effects to a less-than-significant level.

Thresholds of Significance

In accordance with Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant impact related to cultural resources if it would:

(a) Cause a substantial adverse change in the significance of an historical resource as defined in Section 15064.5;

(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;

(c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

(d) Disturb any human remains, including those interred outside of formal cemeteries.

Project Impacts and Mitigation Measures

Impact IV.D-1: The proposed Project would not cause a substantial adverse change in the significance of an historical resource as defined in Section 15064.5.

As described above, there is a potential Foothill College Historic District that appears to be eligible for the National Register and therefore the California Register. The proposed Project would not result in the demolition of any potential district contributors or other historic resources. However, alterations to or construction near potential district contributors is proposed and potential impacts are described in Table IV.D-3.

The proposed Physical Sciences and Engineering Center (PSEC) would be located in close proximity to potential district contributors and could impact the historic setting. Because the proposed Project is conceptual in nature, many of the specific elements have not been thoroughly developed and construction of the PSEC constitutes a potentially significant impact. Therefore, the impact of construction of the PSEC related to a change in significance of an historical resource would be ***less than significant*** with implementation of Mitigation Measure IV.D-1a.

Circulation improvements would include guard rails, crossing, curbs, lane markings, resurfacing, and changes in traffic patterns. Loop Road would be repaired and resurfaced and new lighting would be installed for safety. Depending on variables such as design, location, and number, the circulation improvements and installation of lights constitutes a potentially significant impact. Therefore, the impact of circulation improvements related to a change in significance of an historical resource would be ***less than significant*** with implementation of Mitigation Measures IV.D-1a.

The main line irrigation system would be improved and some storm drains would be replaced campus-wide. Bird barriers on buildings would be replaced and fire alarm systems would be upgraded. Photovoltaic arrays and wireless infrastructure would be installed campus-wide. Utilities campus-wide would be upgraded and minor repairs to campus fountains would be made. Most of these project elements do not have the potential to impact the potential historic district. However, depending on variables such as design, location, and number, the installation of lights, bird barriers, and photovoltaic cells constitutes a potentially significant impact. Therefore, the impact of utility improvement related to a change in significance of an historical resource would be ***less than significant*** with implementation of Mitigation Measures IV.D-1a.

Table IV.D-3
Potential Impacts to Historic Resources by the Project

Project	Potential Impact
New Construction	
Physical Sciences and Engineering Center	Yes, in close proximity to potential district contributors (see analysis below).
Scene Shop	No, not in close proximity to potential district contributors.
Roadway Improvements	
Campus-Wide Circulation Improvements	Yes, in close proximity to potential district contributors (see analysis below).
PE Access Road Improvement	No, improvements will not impact potential district contributors.
Parking Lot Improvements	
Parking Lot 1 Pedestrian Footbridge	No, not in close proximity to potential district contributors. In addition the footbridge would be located downhill from district contributors and would be screened by trees. ADEIR regarding the footbridge notes, "The design details of this project are conceptual and undefined at this point."
Parking Lot 1-H	No, parking lots not in close proximity to potential district contributors.
Parking Lots 2 and 3 Security Improvements	No, parking lots not in close proximity to potential district contributors.
Parking Lot 3 Pedestrian Footbridge	No, not in close proximity to potential district contributors. In addition the footbridge would be located downhill from district contributors and would be screened by trees.
Parking Lot 4	No, the new parking lot area expands the lot to the southwest and the potential district contributors are to the east.
Parking Lot 4 Pedestrian Connection/Footbridge	Yes, in close proximity to potential district contributors. In addition, this footbridge, unlike the other proposed footbridges, is level with district contributors and is only minimally screened by trees.
Parking Lot 6 Resurfacing	No, parking lot not in close proximity to potential district contributors.
Site Improvements	
Utility Improvements	Yes, would likely occur within potential district and on potential district contributors (see analysis below).
Campus-Wide Landscaping and Site Improvements	Yes, would likely occur within potential district (see analysis below).
Signage, Wayfinding, and Lighting	Yes, would likely occur within potential district (see analysis below).
Campus-Wide Americans with Disabilities Act (ADA) Improvements	Yes, would likely occur within potential district (see analysis below).
Soccer, Baseball and Softball Complex	No.
Tennis Court Improvements	No.
Demolition	
Ornamental Horticulture Buildings	No, not a potential district contributor.
Veterinary Technology Buildings	No, not a potential district contributor.
Demolish Modular Buildings	No, not a potential district contributor.
Renovation	
District Offices (D120 Building)	No, not a potential district contributor.
5800 TV Center	Yes, potential district contributor (see analysis below).
6600 Japanese Cultural Center	No.
Stadium	Yes, potential district contributor (see analysis below).
2602 Swim Pool Area Storage	No.

Source: Architectural Resources Group, Foothill College Historic Resource Evaluation: Foothill College Facilities Master Plan, April 2008

Some non-native Eucalyptus trees would be removed, preventative maintenance of existing campus oak trees would be performed, and diseased trees would be culled as required. New trees, including oaks and other native species would be installed campus-wide and campus site furniture would be improved. It should be noted that while oaks were noted in the 1961 plans, eucalyptuses were not. Trees and site furniture were an integral part of the 1961 Campus Plan and, depending on variables such as location and number, their removal constitutes a potentially significant impact. Therefore, the impact of campus-wide landscaping and site improvements related to a change in significance of an historical resource would be ***less than significant*** with implementation of Mitigation Measures IV.D-1a and IV.D-1b.

Additional signage throughout the campus and pedestrian and exterior lighting would be installed. Site elements were an integrated part of the 1961 Campus Plan and, depending on variables such as location and number, installation constitutes a potentially significant impact. Therefore, the impact of signage, wayfinding and lighting related to a change in significance of an historical resource would be ***less than significant*** with implementation of Mitigation Measures IV.D-1a and IV.D-1c.

ADA improvements would consist of the removal of architectural barriers to accommodate disabled users. These features could be located in close proximity to potential district contributors and could impact the historic setting. Therefore, the impact of ADA improvements related to a change in significance of an historical resource would be ***less than significant*** with implementation of Mitigation Measure IV.D-1a.

The existing Building 5800, currently used as instructional support space would be renovated, including minor improvements to roof and interior spaces. Building 5800 is a potential district contributor, and roofs are a major character-defining feature of the building and minor improvements constitute a potentially significant impact. Therefore, the impact of the roof improvements to Building 5800 related to a change in significance of an historical resource would be ***less than significant*** with implementation of Mitigation Measure IV.D-1a.

The existing press box and support system on the opposite side of the field would be reconstructed. The existing snack area would be renovated to meet current codes and for ADA accessibility. The stadium was part of the 1961 Campus Master Plan and is a potential district contributor. However, the press box does not use the "space unit" concept of the other potential district contributors, and the western concession stands/restroom does not retain integrity. Additionally, the stadium is not in close proximity to the other district contributors, which are all located at the top of the two hills. For these reasons, renovation of the stadium would have a ***less-than-significant*** impact related to historic resources.

Mitigation Measure IV.D-1a

The schematic plans of the Project are expected to evolve to a greater level of detail. As such, a qualified historic architect shall monitor the design, plans, and construction of the Project to ensure that the Project is compatible in height, scale, massing, design, materials, and color in accordance with the Secretary of the Interior's Standards and existing College architecture. To the extent feasible, landscaping features that contribute to the historic character of the potential district shall be maintained.

Mitigation Measure IV.D-1b

Trees that were part of the 1961 Campus Plan shall be retained rather than replaced whenever possible. When replacement is necessary, the trees shall be replaced in kind. Historic campus plans provide information on the original design intent. Similarly, in keeping with The Secretary of the Interior's Standards, site furniture from the 1961 Campus Plan shall be repaired rather than replaced. Any new site furniture shall be consistently uniform throughout the campus and designed such that they are sympathetic to the simplified form, materials, and design of the 1961 campus site furniture, but not exact replications. Their designs shall refrain from historic interpretations.

Mitigation Measure IV.D-1c

New signage and lighting fixtures shall be constructed that reflect the defined architectural vocabulary of the 1961 campus but do not exactly replicate 1961 features.

Impact IV.D-2: The proposed Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

All proposed facilities would be constructed within the mostly developed Project site. The Project site contains no recorded Native American cultural resources according to a cultural resource evaluation conducted in August 2000 by the Northwest Information Center (Sonoma State University).[2] Several archaeological sites have been recorded upstream along Adobe Creek and the Santa Clara Valley is known for having buried archaeological resources. Excavations could reveal unidentified cultural resources, constituting a potentially significant impact. Project impacts related to a change in significance of an archaeological resource would be ***less than significant*** with implementation of Mitigation Measures IV.D-2a and IV.D-2b.

Mitigation Measure IV.D-2a

If buried cultural or paleontological materials (e.g., bone, brick, etc.) are exposed during construction, work shall be halted in the immediate vicinity of the find until a qualified archaeologist can assess their significance.

Mitigation Measure IV.D-2b

If the finds are determined to be significant, the archaeologist shall be permitted to remove the items in a professional manner for further laboratory evaluation.

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[2] *2001 Foothill College Revised Facilities Master Plan and District Facilities Projects Initial Study, October 26, 2001.*

Impact IV.D-3: The proposed Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

As shown in the regional geologic mapping of the Los Altos Hills area by Cotton and Associates (1978), the dominant rock type mapped in the Project vicinity is Jurassic-Cretaceous age Franciscan Assemblage. No paleontological assessment of the Project site has been conducted and, therefore, it must be assumed that unique paleontological resources may be present in the areas underlain by bedrock, constituting a potentially significant impact. Project impacts related to the destruction of a unique paleontological resource would be ***less than significant*** with implementation of Mitigation Measures IV.D-2a and IV.D-2b.

Impact IV.D-4: The proposed Project would not disturb any human remains, including those interred outside of formal cemeteries.

While there is no evidence that human remains are present on the Project site, there is still the potential that the construction phase of the Project could encounter human remains, which in turn could result in a potentially significant cultural resource impact. Project impacts related to a disturbance of human remains would be ***less than significant*** with implementation of Mitigation Measure IV.D-4.

Mitigation Measure IV.D-4

If human remains are unearthed during construction, no further disturbance shall occur until the Santa Clara County Medical Examiner-Coroner has made the necessary findings as to origin and disposition in accordance with California Health and Safety Code Section 7050.5. If the remains are determined to be those of a Native American, the Native American Heritage Commission (NAHC) in Sacramento shall be contacted before the remains are removed in accordance with Section 21083.2 of the California Public Resources Code.

CUMULATIVE IMPACTS

Impacts related to historical resources tend to be site-specific and are assessed on a site-by-site basis. The Town of Los Altos Hills would require the applicants of future development subject to CEQA to assess, determine, and mitigate any potential impacts related to historical resources that could occur as a result of development, as necessary. Through compliance with the existing laws and the mitigation measures listed previously, Project impacts associated with historic resources, archaeological resources, paleontological resources, unique geologic features, and human remains would be less than significant. The occurrence of these less-than-significant impacts would be limited to the Project site and would not contribute to any potentially significant cultural resources impacts that could occur at the sites of future development subject to CEQA. As such, the proposed Project would not contribute to any potential cumulative impacts related to cultural resources. Therefore, cumulative impacts related to cultural resources would be ***less than significant***.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measures IV.D-1a through IV.D-4 identified in this section would adequately mitigate all potential impacts related to cultural resources.

IV. ENVIRONMENTAL IMPACT ANALYSIS
E. NOISE

INTRODUCTION

This section of the Draft EIR provides a description of noise within the Project site, information on regulations relating to this issue, and an analysis of potential impacts related to noise resulting from implementation of the Foothill College Facilities Master Plan. Information used to prepare this section was taken from the *Foothill College Projects Draft Environmental Impact Report* – March 2002, and noise monitoring conducted by Christopher A. Joseph & Associates, February 28, 2008.

ENVIRONMENTAL SETTING

Fundamentals of Sound and Environmental Noise

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway. Table IV.E-1 illustrates representative noise levels in the environment.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The L_{eq} is a measure of ambient noise of an arbitrary duration, while the L_{dn} and Community Noise Exposure Levels (CNEL) are 24 hour average measures of community noise. Each is applicable to this analysis and defined as follows:

- L_{eq}, the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

Table IV.E-1
Representative Environmental Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	—110—	Rock band
Jet fly-over at 100 feet		
	—100—	
Gas lawnmower at 3 feet		
	—90—	
		Food blender at 3 feet
Diesel truck going 50 mph at 50 feet	—80—	Garbage disposal at 3 feet
Noisy urban area during daytime		
Gas lawnmower at 100 feet	—70—	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	—60—	
		Large business office
Quiet urban area during daytime	—50—	Dishwasher in next room
Quiet urban area during nighttime	—40—	Theater, large conference room (background)
Quiet suburban area during nighttime		
	—30—	Library
Quiet rural area during nighttime		Bedroom at night, concert hall (background)
	—20—	
		Broadcast/recording studio
	—10—	
Lowest threshold of human hearing	—0—	Lowest threshold of human hearing

Source: California Department of Transportation, 1998.

- L_{dn}, the Day-Night Average Level, is a 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24 hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.

- CNEL, the Community Noise Equivalent Level, is a 24-hour average L_{eq} with a 5 dBA "weighting" during the hours of 7:00 P.M. to 10:00 P.M. and a 10 dBA "weighting" added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24 hour L_{eq} would result in a measurement of 66.7 dBA CNEL.

- L_{min}, the minimum instantaneous noise level experienced during a given period of time.

- L_{max}, the maximum instantaneous noise level experienced during a given period of time.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. Environmental noise levels are generally considered low when the L_{dn} is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet suburban residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but some will accept the higher levels associated with more noisy urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA).

When evaluating changes in 24-hour community noise levels, a difference of 3 dBA is a barely perceptible increase to most people. A 5 dBA increase is readily noticeable, while a difference of 10 dBA would be perceived as a doubling of loudness.

Noise levels from a particular source decline as distance to the receptor increases. Other factors, such as the weather and reflecting or shielding, also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source, the noise level is reduced by about 3 dBA at acoustically "hard" locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically "soft" locations (i.e., the area between the source and receptor is earth or has vegetation, including grass).

Noise from stationary or point sources is reduced by about 6 to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. Standard California construction methods typically provide a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows and about 15 dBA with open windows.

Community Response to Changes in Noise Levels

The potential for adverse community response tends to increase as an intrusive noise becomes more noticeable above existing background noise levels. For example, if an intrusive noise has an average level that is comparable to existing average ambient noise levels, then the intrusive sound would tend to blend in with the ambient noise. However, if the intrusive sound is significantly greater than the ambient noise then the intrusive sound would be more noticeable and potentially more annoying as it can interfere with rest, working efficiency, social interaction and general tranquility.

In general, human sound perception is such that a change in sound level of 3 dB is just noticeable, a change of 5 dB clearly noticeable and a change of 10 dB would be perceived as a doubling (or halving) of loudness.[1]

Fundamentals of Environmental Groundborne Vibration

Groundborne vibration is radiated through the ground, and is an oscillatory motion that can be described in terms of the displacement, velocity, or acceleration. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. This normally only occurs in subterranean rooms adjacent to subways. Sources of groundborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides), or man-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, traffic, trains, and most construction vibrations (with the exception of pile driving, blasting, and some other types of construction/demolition), or transient, such as explosions.[2]

Ground motion caused by vibration can be measured as particle velocity in inches per second. The peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak of the vibration signal. The PPV threshold of perception for humans falls approximately in the 0.006-0.019 inch/second range.[3] 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 rarely perceptible.

Construction Vibration

The general human reaction to various continuous vibration levels, as well as their potential damage to buildings, is described in Table IV.E-2. As shown, 0.08 inch/second PPV is the level at which continuous vibrations are readily perceptible by people, and 0.10 inch/second PPV is the level at which continuous vibrations begin to annoy people in buildings. It should be noted, however, that the annoyance levels in Table IV.E-2 need to be interpreted with care. Depending on the activity (or inactivity) a person is engaged in, vibrations may be annoying at much lower levels than those shown in Table IV.E-2. In particular, elderly, retired, or ill people staying mostly at home, people reading in a quiet environment, and people involved in vibration-sensitive hobbies or other activities are examples of people that are potentially annoyed by much lower vibration levels.[4]

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1 *Cowen, Handbook of Environmental Acoustics, 1994.*

2 *California Department of Transportation, Transportation Related Earthborne Vibrations, Technical Advisory Number TAV-02-01-R9601, February 20, 2002.*

3 *Ibid.*

4 *Ibid.*

Table IV.E-2
Reaction of People and Damage to Buildings at Various Continuous Vibration Levels

Vibration Level (Peak Particle Velocity – in./sec.)[a]	Human Reaction	Effect on Buildings
0.006-0.019	Threshold of perception; possibility of intrusion.	Vibrations unlikely to cause damage of any type.
0.08	Vibrations readily perceptible.	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected. This criterion level may also be used for historical buildings, or buildings that are in poor condition.
0.10	Level at which continuous vibrations begin to annoy people.	Virtually no risk of "architectural" damage to normal buildings.
0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relatively short periods of vibrations).	Threshold at which there is a risk of "architectural" damage to normal dwelling-houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage.
0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges.	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage.

[a] *The vibration levels are based on peak particle velocity in the vertical direction. Where human reactions are concerned, the value is at the point at which the person is situated. For buildings, the value refers to the ground motion. No allowance is included for the amplifying effect, if any, of standard components.*

Source: California Department of Transportation, Transportation Related Earthborne Vibrations, Technical Advisory Number TAV-02-01-R9601, February 20, 2002.

Existing Noise Levels

On-Site Noise Levels

College facilities currently include (among others) academic and administrative buildings, a library, student center, athletic fields, and associated parking lots. Principal vehicular traffic routes near the Project site include I-280 and El Monte Road, and are considered to be the dominant source of noise on, and in the vicinity of, the Project site. The parking lots located throughout the site are the dominant point (stationary) sources of noise. Other sources of noise heard throughout the Project site are generally composed of normal student and staff activities.

Point sources of noise are generated by on-site student and staff activities. Typical noise levels heard on the site are relatively low and consist of sources such as people talking, doors closing, landscaping and maintenance equipment operation, car/personal stereos, occasional auto alarms, domestic animals, etc.

Athletic facilities in the southeast, northeast, and northwest parts of the campus are used by students and community members for team practices and games, and other recreational activities. Recreational facilities include the baseball/ athletic field, softball/soccer field, stadium (football/ track), tennis courts, and a swimming pool. Noise is generally limited to people talking, crowds cheering at athletic events, and coaches' whistles and instructions. An amplified public address system is used at sports events held at the stadium during the afternoon and evening.

Existing noise levels were monitored at seven locations, listed in Table IV.E-3, on the Project site by Christopher A. Joseph & Associates on February 28, 2008. These locations are identified in Figure IV.E-1. On-site noise levels are characteristic of a campus environment. Noise monitoring data is included in Appendix E.

Table IV.E-3
Sound Level Measurements in dBA at Selected Locations On-Site

Location	Noise Level (dBA)
1. South Side of Building D120	53.4
2. Northeast Side of Building 2400	59.9
3. West of building 2000	50.2
4. "C" Location	49.8
5. South Side of Library 3500	47.4
6. Bamboo Garden	52.9
7. South Side of Building 4400	59.2
Source: Christopher A. Joseph & Associates, 2008.	

Although aircraft overflights could be heard occasionally in the background, the dominant sources of noise heard during the noise monitoring included vehicles in parking areas, people talking, cellular phones, and maintenance equipment.

Existing Off-Site Noise Levels

Vehicular traffic is the dominant source of noise affecting the noise-sensitive uses in the immediate vicinity of the Project site. Project traffic would primarily affect land uses adjacent to El Monte Road. Noise-sensitive receptors located in proximity to this roadway include single-family homes. Vehicular traffic noise levels were calculated in order to characterize the existing ambient noise environment at these locations. The existing average noise levels identified through these calculations are shown in Table IV.E-4. The noise levels shown for these locations are calculated based on the distance from the center of the roadway to the nearest existing building. Correspondingly, homes located farther from the roadway would be exposed to lower noise levels.

Source: Foothill College Revised Facilities Master Plan and District Projects EIR, Google Earth, Christopher A Joseph & Associates, 2008

CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

Figure IV.E-1
Noise Measurement Locations

Table IV.E-4
Existing Roadway Noise Levels Offsite

Roadway	Roadway Segment	Land Use	dBA CNEL
Moody Road	West of Elena Road/El Monte Road	Residential	58.1
	East of Elena Road/El Monte Road	Parking Lot	44.9
Elena Road	North of Moody Road	Residential	56.9
El Monte Road	South of Moody Road	Residential	57.6
	West of College Loop Road	Rural	56.1
	East of College Loop Road	Rural/Track Field	60.9
	West of Stonebrook Road	Rural/Track Field	61.5
	East of Stonebrook Road	Rural/College	66.2
	West of Foothill Expressway	Residential	67.5
	East of Foothill Expressway	Residential	64.2
College Loop Road	North of El Monte Road	Parking Lot	56.9
Stonebrook Road	South of El Monte Road	Residential	56.0

Source: Christopher A Joseph and Associates, 2008. Calculation data and results are provided in Appendix E.

As shown, based on noise modeling, existing exterior noise levels at all single-family residences along El Monte Road are below 67.5 dBA CNEL. As noted above, these noise levels are based on the distance from the center of the roadway to the edge of the nearest existing building. Due to the variations in setbacks and designs for many of the buildings along Project area roadways, this analysis does not attempt to precisely determine the ambient noise level at each noise-sensitive use. Rather, the noise levels noted above are intended to serve as a baseline to which the increase in noise from Project traffic can be compared. Attenuation from a solid barrier (e.g., a building, wall or fence) would be expected to reduce exterior noise levels by 5 to 10 dBA. Given these factors, the noise levels obtained from the modeling probably overstate the actual ambient noise level at outdoor living or use areas at the noise-sensitive uses.

The estimated noise levels along El Monte Road near Stonebrook Drive do not reflect the noise from traffic on I-280, the travel lanes of which are about 0.2 miles east of and above Stonebrook Drive. These noise levels on El Monte Road near I-280 would be mostly "masked" by the noise from I-280 (if two sound levels differ by 10 dB or more, the lower sound level is masked by the higher sound level).

Regulatory Setting

Federal

Noise

No federal plans, policies, regulations or laws related to noise are applicable to the proposed Project.

Groundborne Vibration

This analysis uses the FTA's vibration impact criteria for sensitive buildings, residences, and institutional land uses near railroads. The thresholds for residences and buildings where people normally sleep (e.g., nearby residences) are 72 VdB for frequent events (more than 70 events of the same source per day), 75 VdB for occasional events (30 to 70 vibration events of the same source per day), and 80 VdB for infrequent events (fewer than 30 vibration events of the same source per day).

State

Noise

The State's guidelines for noise and land use compatibility criteria, summarized in Table IV.E-5, are to be considered by local governments when setting standards for human exposure to noise and preparing noise elements for general plans.

As shown in Table IV.E-5, residential land uses and other noise-sensitive receptors generally should be located in areas where outdoor ambient noise levels do not exceed 65 to 70 dBA (L_{dn} or community noise equivalent level [CNEL]). For single-family, duplex, and mobile homes, an exterior noise level up to 60 dBA (L_{dn} or CNEL) is considered to be a "normally acceptable" noise level, which is based on the assumption that any buildings involved are of normal construction that would not require special noise insulation. For multi-family homes, motels, and hotels, an exterior noise level up to 65 dBA (L_{dn} or CNEL) is considered to be a "normally acceptable" noise level. Between these noise values and 70 dBA (L_{dn} or CNEL), exterior noise levels for these land uses would be considered to be "conditionally acceptable," where construction should only occur after a detailed analysis of the noise reduction requirements is made and needed noise attenuation features are included in the Project. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. For commercial uses, exterior noise levels up to 70 dBA (L_{dn} or CNEL) are considered to be a "normally acceptable" noise level, while exterior noise levels up to 77 dBA (L_{dn} or CNEL) are considered to be a "conditionally acceptable" noise level.

The State establishes minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings as set forth in Appendix Chapter 1208A.8.4 of the California Building Code. The noise limit is a maximum interior noise level of 45 dBA L_{dn}. Where exterior noise levels exceed 60 dBA $L_{dn,}$ a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the Project to meet the noise limit.

Table IV.E-5
State Noise and Land Use Compatibility Criteria

Land Use	Community Noise Exposure (L_{dn} or CNEL, dB)			
	Normally Acceptable[a]	**Conditionally Acceptable[b]**	**Normally Unacceptable[c]**	**Clearly Unacceptable[d]**
Single-family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	above 70
Multi-Family Homes	50 - 65	60 - 70	70 - 75	above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	above 80
Transient Lodging – Motels, Hotels	50 - 65	60 - 70	70 - 80	above 80
Auditoriums, Concert Halls, Amphitheaters	---	50 - 70	---	above 65
Sports Arena, Outdoor Spectator Sports	---	50 - 75	---	above 70
Playgrounds, Neighborhood Parks	50 - 70	---	67 - 75	above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	---	70 - 80	above 80
Office Buildings, Business and Professional Commercial	50 - 70	67 - 77	above 75	---
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	above 75	---

[a] 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.

[b] 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.

[c] 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 insulation features included in the design.

[d] Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: Governor's Office of Planning and Research, General Plan Guidelines, 2003, page 250.

Groundborne Vibration

No state plans, policies, regulations or laws related to groundborne vibration are applicable to the proposed Project. However, Caltrans has adopted guidance for construction vibrations and this guidance is used in this analysis to address construction vibrations.

Local

The College is part of the California Community College System and, therefore, the *Los Altos Hills General Plan* and the Los Altos Hills Municipal Code do not have jurisdictional authority over the

Project site. However, the Town's noise guidelines are pertinent because the Project could affect off-site uses that are located within the Town's jurisdiction.

Town of Los Altos Hills General Plan

The California Government Code Section 65302(g) requires that a noise element be included in the General Plan of each county and city in the State. The Noise Element of the Town of Los Altos Hills General Plan is intended to identify sources of noise and provide objectives and policies that ensure that noise from various sources does not create an unacceptable noise environment. Overall, the Town's Noise Element describes the noise environment (including noise sources) in the Town, addresses noise mitigation regulations, strategies, and programs as well as delineating federal, State, and Town jurisdiction relative to rail, automotive, aircraft, and nuisance noise. It is a tool that planners use to achieve and maintain compatible land uses with environmental noise levels. As shown below in Table IV.E-6, land use types within the Town of Los Altos Hills are subject to the following Land Use and Noise Compatibility Guidelines:

Table IV.E-6
Town of Los Altos Hills General Plan Land Use and Noise Compatibility Criteria

Land Use	Community Noise Exposure (L_{dn} or CNEL, dB)		
	Normally Acceptable	**Conditionally Acceptable**	**Normally Unacceptable**
Single-family Residential and Open Space	50 - 60	60 - 75	Above 75
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds	50 - 65	–65 - 80	–Above 80
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churchs	50 - 60	60 - 75	–Above 75
Office Buildings, Business Commercial, and Professional (such as Town Hall(	–50 - 70	70 - 80	–Above 80
Auditoriums, Concert Halls, Amphitheaters	---	50 - 75	Above 75

Source: website http://www.losaltoshills.ca.gov/documents/general_plan/general_plan_noise_element.pdf

Los Altos Hills Municipal Code

The Town's Noise Ordinance identifies a series of noise sources and specifies the maximum decibel levels for daytime (defined as the period between 7:00 A.M. and sunset) and nighttime (defined as the period between sunset and 6:59 A.M.). Table IV.E-7 displays the maximum allowable decibels for noise sources during the day and night as stipulated by Section 5-2.02 of the Los Altos Hills Municipal Code. The Town's Noise Ordinance does not contain maximum allowable levels for mechanical equipment noise.

Table IV.E-7
Los Altos Hills Municipal Code Maximum Decibels Noise Sources Day/Night

Source	Maximum Decibels (dB)		Source	Maximum Decibels (dB)	
	Day	Night		Day	Night
Aircraft*	60	50	Motor vehicles	82	70
Animals	50	40	Motor vehicle repairing, rebuilding, modernizing, and testing	82	40
Farm tractor	82	40	Persons	50	40
Implements of husbandry	65	40	Powered model vehicle	60	40
Machines, tools, or appliances	50	40	Sound producing device	50	40

** 1,000 feet from affected property.*

Source: Los Altos Hills Municipal Code, Section 5-2.02.

ENVIRONMENTAL IMPACTS

Methodology

Implementation of the proposed Project could result in the introduction of noise levels that may exceed permitted Town noise levels. The primary sources of noise associated with the proposed Project would be construction activities at the Project site and Project-related traffic volumes associated with operation of the proposed commercial development. Secondary sources of noise would include new stationary sources (such as heating, ventilation, and air conditioning units) and increased human activity throughout the Project site. The net increase in Project site noise levels generated by these activities and other sources have been quantitatively estimated and compared to the applicable noise standards and thresholds of significance.

Aside from noise levels, groundborne vibration would also be generated during the construction phase of the proposed Project by various construction-related activities and equipment. Thus, the groundborne vibration levels generated by these sources have also been quantitatively estimated and compared to applicable thresholds of significance.

Construction Noise Levels

Construction noise levels were estimated by data published by the United States Environmental Protection Agency (USEPA). Potential noise levels are identified for off-site locations that are sensitive to noise, including existing residences.

Groundborne Vibration Associated with Construction Equipment

Groundborne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by Harris Miller Miller & Hanson Inc. for the Federal Transit Administration. Potential vibration levels resulting from construction of the proposed Project are identified for off-site locations that are sensitive to vibration, including existing residences.

Roadway Noise Levels

Roadway noise levels have been calculated for selected study intersection locations around the Project site. The noise levels were calculated using the FHWA-RD-77-108 model and traffic volumes from the Project traffic analysis. The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by the State Department of Transportation (Caltrans).

Thresholds of Significance

In accordance with Appendix G of the *CEQA Guidelines*, the proposed Project would result in significant noise impacts if it would result in:

(a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

(b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;

(c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or

(f) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

As discussed in the Initial Study that was prepared for the Notice of Preparation (see Appendix A to this Draft EIR), there would be no impact with respect to the Thresholds (e) and (f) because the College is neither located within an airport land use plan area nor within the vicinity of a private airstrip. Accordingly, the following discussion focuses on Thresholds (a), (b), (c) and (d).

The *CEQA Guidelines* do not define the levels at which groundborne vibration or groundborne noises are considered "excessive." This analysis uses the FTA's vibration impact criteria for sensitive buildings, residences, and institutional land uses. The thresholds for residences and buildings where people normally sleep (e.g., nearby residences) are 72 VdB for frequent events (more than 70 events of the same source per day), 75 VdB for occasional events (30 to 70 vibration events of the same source per day), and 80 VdB for infrequent events (less than 30 vibration events of the same source per day).

The *CEQA Guidelines* do not define the levels at which permanent increases in ambient noise are considered "substantial." As discussed previously in this section, a noise level increase of 3 dBA is barely perceptible to most people, a 5 dBA increase is readily noticeable, and a difference of 10 dBA would be perceived as a doubling of loudness. Based on this information, an increase in the L_{dn} noise level resulting from the Project at noise-sensitive land uses of 3 dBA L_{dn} or greater would be considered a significant impact when projected noise levels would exceed those considered satisfactory for the affected land use (e.g., 60 dBA L_{dn} for single-family residential land uses). If the noise environment at the sensitive land use would remain below normally acceptable noise levels, a 5 dBA L_{dn} increase in noise levels would be considered significant.

Project Impacts

Impact IV.E-1: The proposed Project may result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

The Project proposes construction, renovation, and site improvement projects on the Project site to accommodate an estimated increase in enrollment at the College of approximately 2,839 students over the next ten years. The Project proposes the construction of two buildings providing approximately 62,500 square feet of building space, including approximately 41,000 square feet of assignable space. Circulation and parking improvements include improvements to the PE Access Road, various circulation improvements and three footbridge connections to reduce traffic conflicts and improve pedestrian and bicycle safety, parking lot resurfacing, and the addition of approximately 240 parking spaces.

Construction Noise

Construction of the proposed Project would require the use of heavy equipment for demolition, site grading and excavation, installation of utilities, paving, and building fabrication. Development activities would also involve the use of smaller power tools, generators, and other sources of noise. During each stage of development, there would be a different mix of equipment operating and noise levels would vary based on the type and amount of equipment in operation and the location of the activity. The range for noise levels generated by typical, individual pieces of construction equipment is provided in Table IV.E-8.

The U.S. Environmental Protection Agency (EPA) has also compiled data regarding the noise generating characteristics of typical construction activities, both with and without the use of equipment mufflers.

These data, which represent composite construction noise, are presented in Table IV.E-9. These noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 84 dBA L_{eq} measured at 50 feet from the noise source to the receptor would reduce to 78 dBA L_{eq} at 100 feet from the source to the receptor, and reduce by another 6 dBA L_{eq} to 72 dBA L_{eq} at 200 feet from the source to the receptor.

In general, the site excavation and grading activities at the Project site, which would involve the use of loaders and scrapers, would generate the loudest noise levels during construction of the proposed Project. As shown above in Table IV.E-8, the operation of scrapers could generate a maximum noise level of 89 dBA at 50 feet, while loaders could generate a maximum of 85 dBA at 50 feet, during excavation. The campus would continue to observe the current schedule, including class times and before and after-school related activities during construction and following buildout. Therefore, during construction of the proposed Project, the nearest and most notable sensitive receptors to the Project site would be the existing classrooms and other existing school related facilities which may be located as close as 50 feet from active construction sites.

Table IV.E-8
Noise Levels of Typical Construction Equipment

Construction Equipment	Noise Levels in dBA L_{eq} at 50 feet [b]
Loader	85
Trucks	88
Cranes (moveable)	83
Cranes (derrick)	88
Concrete Vibrator	76
Saws	76
Pneumatic Tool	85
Jackhammers	88
Pumps	76
Generators	81
Air Compressors	81
Concrete Mixers	85
Concrete Pumps	82
Back Hoe	80
Pile Driving (Impact)	101
Pile Driving (Sonic)	96
Dozer	85
Scraper	89
Grader	85
Paver	89

[a] *Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.*

[b] *The L_{eq} noise levels for each piece of construction equipment represent noise levels generated over a time period of one hour under free-field conditions (i.e., topography and ground effects are ignored).*

Source: Harris Miller Miller & Hanson Inc., Transit Noise and Vibration Impact Assessment, May 2006.

Table IV.E-9
Typical Outdoor Construction Noise Levels

Construction Phase	Noise Levels at 50 Feet with Mufflers (dBA L_{eq})	Noise Levels at 60 Feet with Mufflers (dBA L_{eq})	Noise Levels at 100 Feet with Mufflers (dBA L_{eq})	Noise Levels at 200 Feet with Mufflers (dBA L_{eq})
Ground Clearing	82	80	76	70
Excavation, Grading	86	84	80	74
Foundations	77	75	71	65
Structural	83	81	77	71
Finishing	86	84	80	74

Source: United States Environmental Protection Agency, 1971.

The Town's Noise Ordinance limits construction activities to between the hours of 8:00 A.M. and 5:30 P.M., Monday through Saturday while grading operations are limited to the hours of 8:00 A.M. and 5:30 P.M., Monday through Friday. Construction is not anticipated to generate significant noise impacts; therefore this impact would be less than significant. However, since construction could occur immediately adjacent to existing classrooms and other student related facilities, where quiet environments are required, this impact is considered potentially significant. Project impacts related to construction noise would be ***less than significant*** with implementation of Mitigation Measures IV.E-1a through IV.E-1h.

Mitigation Measure IV.E-1a

The Project shall restrict construction and demolition activities to the hours of 7:30 A.M. to 6:00 P.M. Monday through Saturday.

Mitigation Measure IV.E-1b

Construction and demolition activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.

Mitigation Measure IV.E-1c

The use of those pieces of construction equipment or construction methods with the greatest peak noise generation potential shall be minimized to the extent feasible. Examples include the use of drills, jackhammers, and pile drivers.

Mitigation Measure IV.E-1d

Noise-generating construction activities whose specific location on the site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) shall be conducted as far as possible from the nearest noise-sensitive land uses, and natural and/or manmade barriers (e.g.,

intervening construction trailers) shall be used to screen propagation of noise from such activities towards these land uses to the maximum extent possible.

Mitigation Measure IV.E-1e

Equipment warm-up areas, water tanks, and equipment storage areas shall be located a minimum of 150 feet from the active classroom and laboratory uses.

Mitigation Measure IV.E-1f

The Project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices.

Mitigation Measure IV.E-1g

Flexible sound control curtains shall be placed around drilling apparatuses and drill rigs used within the Project site, if sensitive receptors are located at, or within, 100 feet.

Mitigation Measure IV.E-1h

Two weeks prior to the commencement of construction at any of the project sites, notification must be provided to students and faculty disclosing the construction schedule, including the various types of activities and equipment that would be occurring throughout the duration of the construction period.

Impact IV.E-2: The proposed Project would not result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Construction activities that would occur within the Project site would include grading, which would have the potential to generate low levels of groundborne vibration. Table IV.E-10 identifies various vibration velocity levels for the types of construction equipment that would operate during the construction of the proposed Project. Based on the information presented in Table IV.E-10, vibration levels could reach as high as approximately 87 VdB within 25 feet of the Project site from the operation of construction equipment.

Table IV.E-10
Vibration Source Levels for Construction Equipment

Construction Equipment	Approximate VdB at 25 feet
Large Bulldozer	87
Caisson Drilling	87
Loaded Trucks	86
Jackhammer	79
Small Bulldozer	58
Source: Harris Miller Miller Hanson, Transit Noise and Vibration Impact Assessment, May 2006.	

Due to the use of construction equipment during the construction phase, the proposed Project would expose the existing classrooms and school related facilities as well as the residential uses located to the west of the Project site to increased vibration levels. As discussed under Thresholds of Significance above, the 80 VdB threshold for residences and buildings where people normally sleep was utilized in this analysis and 83 VdB for institutional uses.

Due to the use of construction equipment during the construction phase, the proposed Project would expose sensitive uses to groundborne vibration levels. Such equipment could include large bulldozers, caisson drilling rigs, loaded trucks and small bulldozers, which would generate the vibration levels shown in Table IV.E-10. Due to the close proximity of classrooms and other student related facilities, vibration levels may meet or exceed 87 Vdb as shown above. Therefore, these vibration levels would exceed the 83 VdB threshold for institutional uses and this impact would be considered potentially significant. Project impacts related to excessive groundborne vibration or groundborne noise levels during construction would be ***less than significant*** with implementation of Mitigation Measure IV.E-2a.

Mitigation Measure IV.E-2a

The District shall require by contract specifications that construction staging areas along with the operation of earthmoving equipment on the project site be located as far away from vibration-sensitive sites as possible. Contract specifications shall be included in the project construction documents, which shall be reviewed by the District prior to issuance of a grading permit.

Impact IV.E-3: The proposed Project would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Long-term noise concerns from the development of the proposed Project have the potential to affect offsite locations, resulting primarily from vehicular traffic utilizing the local roadways along affected roadway segments analyzed in the Project traffic study. These concerns were addressed using the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108), which calculates the CNEL noise level for a particular reference set of input conditions, based on site-specific traffic volumes, distances, speeds and/or noise barriers. Based on the traffic report prepared for the proposed Project, included as Appendix E to this Draft EIR, in combination with an analysis of the surrounding land uses, roadway noise levels were forecasted to determine if the proposed Project's vehicular traffic would result in a significant impact at offsite, noise-sensitive receptor locations during the weekday peak hour. The increases in noise levels at noise-sensitive locations along the study-area roadway segments are identified in Table IV.E-11.

As shown, the proposed Project would increase local noise levels by a maximum of 0.4dBA CNEL for several roadway segments. Because the increase in local noise levels at all of the analyzed roadway segments resulting from implementation of the proposed Project would not exceed the 3.0 dBA CNEL threshold, they would not represent a substantial permanent increase in ambient noise levels. Therefore, this impact would be ***less than significant***.

Table IV.E-11
Project Traffic Noise Impacts Offsite

Roadway	Roadway Segment	Noise Levels in dBA CNEL				
		Future without Project	Future Plus Project	Increase	Significance Threshold	Significant?
Moody Road	West of Elena Road/El Monte Road	58.1	58.4	0.3	3.0	No
	East of Elena Road/El Monte Road	46.6	46.8	0.2	3.0	No
Elena Road	North of Moody Road	56.9	57.3	0.4	3.0	No
El Monte Road	South of Moody Road	57.7	58.1	0.4	3.0	No
	West of College Loop Road	56.2	56.6	0.4	3.0	No
	East of College Loop Road	61.4	61.8	0.4	3.0	No
	West of Stonebrook Road	62.4	62.7	0.3	3.0	No
	East of Stonebrook Road	66.9	67.3	0.4	3.0	No
	West of Foothill Expressway	67.8	68.1	0.3	3.0	No
	East of Foothill Expressway	64.2	64.6	0.4	3.0	No
College Loop Road	North of El Monte Road	58.0	58.3	0.3	3.0	No
Stonebrook Road	South of El Monte Road	56.0	56.4	0.4	3.0	No

Traffic Information Source: Crain & Associates, 2007.
Table Source: Christopher A. Joseph and Associates, 2008

Impact IV.E-4: The proposed Project would not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

HVAC Systems

Upon buildout of the proposed Project, new sources of noise would include stationary sources (such as, rooftop heating, ventilation, and air conditioning [HVAC] systems). Large HVAC systems associated with the Physical Sciences and Engineering Center and Scene Shop could result in peak noise levels that average between 25 to 30 dBA L_{50} at the nearest sensitive receptors, and 35 to 40 dBA L_{50} at the property line based on the setback of the fans within the building footprint, the setback of the building from the Project property line, and the presence of an architectural parapet wall around the roofline, in which the major mechanical units will be placed. Lower noise levels are anticipated during periods of lower mechanical demand (variable air volume). For sources with relatively few transient noise events, such as with the fan usage pattern anticipated for use with the Physical Sciences and Engineering Center, the hourly L_{eq} levels due to fan noise will equal the L_{50} levels. As 24-hour CNEL noise levels are more than 9 dBA above the projected HVAC noise emission levels, the project HVAC systems could produce peak noise levels that average between 34 to 39 dBA L_{50} at the nearest sensitive receptors, and 44 to 49 dBA L_{50} at the property line.

These noise levels would not exceed the State's exterior noise level standard of 70 dBA CNEL for schools, as shown in Table IV.E-6 or the Town's General Plan recommendation for 75 dBA CNEL as shown in Table IV.E-6. In addition, the noise levels generated by the operation of the HVAC units would not exceed the State's exterior noise level standard of 70 dBA CNEL for residential uses, as shown in Table IV.E-7 or the Town's General Plan recommendation for 75 dBA CNEL as shown in Table IV.E-6. Therefore, this impact would be ***less than significant***

CUMULATIVE IMPACTS

The continued development throughout the Town would result in intermittent, short-term noise impacts area wide. Construction activities could result in significant short-term noise impacts on sensitive land uses in the vicinity of the Project site, such as residences. The duration of these localized impacts would be limited to the construction phases of the individual projects. All construction activities of any other projects taking place within the City would be subject to the Town of Los Altos Hills General Plan as well as the Los Altos Hills Municipal Code.

In addition, future development projects would require exterior walls to be constructed to provide a Sound Transmission Class of 50 of greater as defined in UBC No. 35-1, 1979 edition or any amendment thereto, or to mitigate interior noise levels below a CNEL of 45 dBA in any habitable room. Conformance with these requirements would reduce operational-related noise. As such the proposed Project would not contribute to a cumulatively considerable noise impact and cumulative noise impacts would be expected to be less than significant. In addition, with Town of Los Altos Hills General Plan and Los Altos Hills Municipal Code compliance, the combined impact of the operational noise levels from the proposed Project and existing noise levels on interior and exterior noise levels on adjacent properties would be less than significant and, therefore, not cumulatively considerable.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measures IV.E-1a through IV.E-1h and IV.E-2a identified in this section would adequately mitigate all potential impacts related to noise.

IV. ENVIRONMENTAL IMPACT ANALYSIS
A. IMPACTS FOUND TO BE LESS THAN SIGNIFICANT

INTRODUCTION

Section 15128 of the *CEQA Guidelines* states:

> *"An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."*

An Initial Study (IS) was prepared for the proposed project in September 2007 and is included in Appendix A. The District received comments on the Project from local agencies and the public on various environmental areas of concern. In response to those comments, the District has chosen to modify the Project from what was originally proposed and studied in the Initial Study. These revisions include eliminating the proposed realignment of the Loop Road to the outer edge of campus and relocation of the proposed Physical Sciences and Engineering Center (PSEC). Because the Loop Road realignment is no longer a part of the Project and the Loop Road will remain in its current location, the proposed location of the PSEC was revised to an area south of Parking Lot 4. Two pedestrian connections/footbridges over the Loop Road have been added to the Project in Parking Lot 3 and from the PSEC. Additionally, the expansion of Parking Lot 4 has been reduced from 2.25 acres to 0.5 acres to allow for the PSEC. All other Project components as described in the Initial Study remain the same. The 2.25-acre Parking Lot 4 would be resurfaced and expanded to approximately 2.75 acres in size to add up to 50 additional parking spaces.

Based on the analysis contained in the Initial Study, it was determined that implementation of the proposed Project would not result in significant environmental impacts to the topics listed below and, therefore, these issues are not discussed in detail in Section IV of this EIR.

AESTHETICS

The Project would not create a substantial adverse effect on a scenic vista. All proposed buildings would be similar in scale and character to existing facilities and would not significantly affect scenic views from or to the Project site. The Project site is generally not visible from vehicle corridors to the east, south, and west. The Project site is visible from nearby residential areas to the northwest, west, and southwest. Views of the Project site from Interstate 280 (I-280) are mostly screened from motorists view by existing roadside landscaping, are available for only brief flashes due to vehicle speed, and are therefore only minimally visible from I-280.[1] However, the Project site is already developed as an educational facility and additional development proposed by the project would be in similar scale and character to the existing

[1] *Christopher A. Joseph & Associates, Site Visit, May 17, 2007.*

development on the Project site. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

The Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.[2] I-280 is designated by Caltrans as a state scenic highway. Portions of the Project site are visible from I-280. However, the Project would not have a significant impact on views from I-280, as views are screened from motorists' view by existing roadside landscaping that contains minimal gaps, are available for only brief flashes due to vehicle speed, and are therefore only minimally visible from I-280.[3] Areas of rock outcroppings are located at the campus entry.[4] However, no development is proposed in areas with rock outcroppings nor are those areas visible from I-280.

The Project would not substantially degrade the existing visual character or quality of the site and its surroundings. Implementation of the Master Plan would result in the infilling of new buildings and infrastructure on the existing Project site. This infill development would be designed to compliment and be compatible with the architectural style of the existing buildings. Although the expansion of Parking Lots 1H and 4 would incrementally increase the amount of paved surface visible from within the Project site, this increase would be minimal in an area that is already developed with school facilities. The Project would not significantly degrade the visual quality of the site and no additional analysis of this issue is warranted in the EIR. However, the potential for significant impacts related to tree removal will be evaluated in the Biological Resources section of the EIR.

The Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. The Project includes the installation of lighting similar to the type of lighting present in most areas of the Project site. At night, light and glare may be caused by vehicle use. Light sources and intensity may shift in portions of the Project site due to new construction, renovation of buildings, and site improvements. Given the developed nature of the campus, these changes would not represent a new source of substantial light. Implementation of the mitigation measure below would reduce this impact to a less-than-significant level.

Mitigation Measures

Mitigation Measure IV.A-AES.1

Prior to the installation of lighting fixtures, the District shall revise the existing Lighting Plan or prepare a new Lighting Plan for the Project site. While the design of exterior lighting standards shall be

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[2] *California Department of Transportation, "The California Scenic Highway System: A List of Eligible and Officially Designated Routes," website: http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm, Accessed June 2, 2007.*

[3] *Christopher A. Joseph & Associates, Site Visit, May 17, 2007.*

[4] *Ibid.*

sympathetic to the scale, materials, and design of the 1961 campus light fixtures, typical lighting should include low mounted, downward casting and shielded lights that do not cause spillover onto adjacent properties. Low intensity, indirect light sources shall be encouraged. No flood lights shall be utilized.

AGRICULTURAL RESOURCES

The Project would not result in the conversion of state-designated agricultural land from agricultural use to another non-agricultural use. According to the Farmland Mapping and Monitoring Program (FMMP), the Project site is designated as urban or built-up land and does not contain prime farmland, unique farmland, or farmland of statewide importance.[5] Therefore, development of the proposed Project would not result in any impacts related to the conversion of important farmland. No significant impact would occur.

The Project would not result in the conversion of land zoned for agricultural use or land under a Williamson Act contract from agricultural use to non-agricultural use. No lands on the Project site are zoned for agricultural use nor is the site subject to a Williamson Act Contract. Therefore, development of the proposed Project would not conflict with zoning for agricultural use or a Williamson Act contract. No significant impacts would occur.

The Project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. As stated above, development of the proposed Project would not convert any Prime Farmland, Unique Farmland or Farmland of Statewide Importance to a non-agricultural use. Therefore, development of the proposed Project would not result in any impacts to agricultural resources as related to conversion of farmland to non-agricultural use. No significant impacts would occur.

GEOLOGY AND SOILS

The Project would not be located within a state-designated Alquist-Priolo Zone or other designated fault zone. The potentially active Monta Vista fault traverses the Project site in an approximately east-west direction. Although the Monta Vista fault is not considered active by the State of California or designated as an Alquist-Priolo Zone, it is generally considered to be potentially active.[6] Final design and location of proposed structures has not been determined; therefore, geotechnical studies have not been undertaken for the Project. Preliminary locations of both buildings proposed by the Project would be constructed with at least a 50-foot setback from the fault and, therefore, outside of the area of concern. Additionally, all building and structure designs and plans are reviewed by the State Architect and California Division of

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[5] *California Division of Land Resource Protection, Farmland Mapping and Monitoring Program Overview, website: http://www.consrv.ca.gov/dlrp/FMMP/overview/survey_area_map.htm, Accessed June 2, 2007.*

[6] *Foothill-De Anza Community College District, Foothill College Projects Draft Environmental Impact Report, March 2002.*

Mines and Geology for compliance with safety standards for public school buildings. Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project would not represent an increased risk to public safety or destruction of property by exposing people, property or infrastructure to seismically induced ground shaking hazards. The San Francisco Bay Area is recognized by geologists and seismologists as one of the most active seismic regions in the United States. Potential sources of seismic shaking on the Project site include the potentially active Altamont, Berrocal, and Monta Vista faults.[7] A major earthquake on any of the faults in the San Francisco Bay Area would subject the Project site to seismic shaking. Final design and location of the proposed buildings has not been determined; therefore, geotechnical studies have not been undertaken for the Project. However, Project design and construction techniques would comply with the California Building Code's requirements for public school facilities, which are more stringent than those for general structures and should reduce potential impacts to a less-than-significant level. The Project would increase the number of students and employees on the campus. However, there would not be an increased risk on the Project site when compared to the risk to public safety or destruction of property present throughout the Bay Area. This risk has been found to be acceptable within the planning community and by regional governments. No significant impact would occur.

The Project would not be located in an area identified as having a high risk of ground failure, including liquefaction. Liquefaction, lateral spreading, ground surface subsidence, and collapsible soils can result from seismic shaking. Final designs and exact locations of proposed structures and parking lot expansions have not been determined; therefore, geotechnical studies have not been undertaken for the Project. Sections of the Project site are underlain by sands that could be prone to liquefaction, lateral spreading, ground surface subsidence, and collapsible soils during moderate to strong ground shaking.[8] However, alluvial materials found on the north side of the Project site in the vicinity of Purissima Creek have a low susceptibility to liquefaction.[9] Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project would not be built on an unstable geologic unit or in an unstable area that could potentially result in on-and off-site landsliding, lateral spreading, subsidence, or collapse. A majority of the campus is located on a hill and adjacent knoll that is circled by Loop Road. As stated above, final design and location of proposed structures has not been determined; therefore, geotechnical studies have not been undertaken for the Project. Previous geotechnical investigations of the campus have identified that natural and graded slopes with observed gradients of 2:1 (horizontal to vertical) or flatter in most areas

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[7] *2001 Foothill College Revised Facilities Master Plan and District Facilities Projects Initial Study, October 26, 2001.*

[8] *2001 Foothill College Revised Facilities Master Plan and District Facilities Projects Initial Study, October 26, 2001. Original Source: Cleary Consultants, New Firehouse at Foothill Community College Geotechnical Investigation, July 1991.*

[9] *Foothill-De Anza Community College District, Foothill College Projects Draft Environmental Impact Report, March 2002.*

are generally performing satisfactorily, that geologic site reconnaissance did not identify evidence of deep-seated soil movement or other landslide movement, and that no landslide hazards within the Project site were previously identified by the geotechnical consultant.[10] Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project would not expose large areas to the erosional effects of wind or water for a protracted period of time. There is moderate potential for soil erosion for most of the Project site's soils.[11] Project components, including those associated with the construction of buildings and parking lot expansions would require grading activities on developed and undeveloped land. However, final designs and locations of the proposed structures and parking lot expansions have not been determined; therefore, geotechnical studies have not been undertaken for the Project. Soil deposition could occur at the storm drainage channels on the Project site as well as in Adobe Creek and Purissima Creek before being transported and deposited downstream. Project-related activities near these surface waters could intensify local erosion and bank slippage.[12] Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project would not pose a hazard to life and property by building on expansive soils without proper site preparation or design features to provide adequate foundations for Project buildings. Changes in soil moisture content can result from rainfall, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors and may cause unacceptable settlement or heave of structures, concrete slabs supported-on-grade, or pavements supported over these materials. Depending on the extent and location below finished subgrade, these soils could have a detrimental impact on the proposed construction. The Project is programmatic in scale and, therefore, no specific grading or drainage plans are available. Localized slope instabilities may be caused by the use of steep and/or large manufactured slopes or inadequate drainage. Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project would be located in an area not served by an existing sewer system. The Town of Los Altos Hills provides wastewater collection and treatment for the Project site and, therefore, alternative wastewater disposal systems would not be required as a result of Project implementation. No significant impact would occur.

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[10] *Foothill-De Anza Community College District, Foothill College Projects Draft Environmental Impact Report, March 2002.*

[11] *Ibid.*

[12] *Ibid.*

Mitigation Measures

Mitigation Measure IV.A-GEO.1

All structures shall be designed and constructed in accordance with the earthquake resistant provisions of the California Building Code. California Building Code site seismic parameters necessary for design shall be based on a site specific geotechnical investigation.

Mitigation Measure IV.A- GEO.2a

The District would conduct a site-specific geotechnical investigation prior to construction of each building project. The investigations would provide detailed geotechnical recommendations for the conditions of a particular development site. The geotechnical investigation would consider the potential for liquefaction hazards, in particular for projects within the current or historic Adobe Creek floodplain and the Purissima Creek. The District would implement all feasible measures identified in the geotechnical investigation to avoid or minimize liquefaction potential. The individual project design and construction would incorporate and implement all of the feasible recommendations in the site-specific geotechnical investigations. These recommendations could typically include some or all of the following:

a. All grading and earthwork for each project would be performed under the observation of the geotechnical consultant.

c. Surface runoff would be collected near the top of the new slopes by means of drainage swales, area drains or berms, which collect and direct water into approved drainage facilities.

f. The geotechnical consultant would provide soil engineering observation and testing services during the grading and foundation installation phases of the new construction.

Mitigation Measure IV.A- GEO.2b

Typical options to address liquefiable soils shall consist of the following: a) remove and replace potentially liquefiable soils with engineered fill; b) densify potentially liquefiable soils with an in-situ ground improvement technique such as deep dynamic compaction, vibro-compaction, vibro-replacement, compaction grouting, or other similar methods; c) support the proposed structures on a pile foundation system, which extends below the zone of potential liquefaction; d) strengthen foundations (e.g., post-tensioned slab, reinforced mat or grid foundation, or other similar system) to resist excessive differential settlement associated with seismically-induced liquefaction; and, e) support the proposed structures on an engineered fill pad in order to reduce differential settlement resulting from seismically-induced liquefaction and post-seismic pore pressure dissipation. The required mitigation for design shall be based on a site specific geotechnical investigation.

Mitigation Measure IV.A- GEO.3

Landslide risk will depend on the precise location and type of the planned development as well as the extent of earthwork needed to provide desired finished grades. The required mitigation for design shall be based on a site specific geotechnical investigation, which may include recommendations for setbacks from any potentially unstable slope.

Mitigation Measure IV.A- GEO.4

Ground-disturbing activity shall require the consideration of erosion control measures such that minimal erosion and sedimentation is allowed outside the building footprint and construction area. Prior to development of the proposed Project, the District would develop an erosion control plan. During each individual project, construction personnel would implement all relevant and feasible measures of the plan during earthmoving and other construction activities. The plan would include, but not be limited to, the following measures:

a. To the extent feasible, restricting earthmoving activities to the dry season and providing erosion protection measures for each project prior to the onset of winter rains.

b. Minimizing the amount of soil exposed at any one time (through scheduling, prompt completion of grading, and use of staged stabilization).

c. Preserving existing vegetation to the extent feasible (through marking and protection).

d. Designating soil stockpile areas on the construction plans and covering and protecting soil stockpiles by a plastic membrane during the rainy season.

e. Revegetating disturbed areas, utilizing such measures as planting of native grasses, plants and shrubs and the installation of jute netting and hydroseeding in areas of more difficult revegetation.

f. Implementing the dust control mitigation measures Section IV.B (Air Quality).

Mitigation Measure IV.A- GEO.5

Expansive soils risks will depend on the precise location and type of the planned development as well as the types of underlying soils and the extent of earthwork needed to provide desired finished grades. The required mitigation shall consist of one or a combination of:

a. Careful moisture conditioning and compaction control during site preparation and placement of engineered fills;

b. Removal and replacement with non-expansive fill; or

c. Chemical treatment with lime to lower the expansion potential and/or decrease the moisture content. Landscape and irrigation controls shall also be required.

The final recommendations for design shall be based on a site-specific geotechnical investigation.

HAZARDS AND HAZARDOUS MATERIALS

The Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials as part of its routine operations. A significant impact may also occur if the Project would potentially pose a hazard to nearby sensitive receptors by releasing hazardous materials into the environment through accident or upset conditions. The Project would utilize limited quantities of hazardous materials such as common cleaning and maintenance materials, which will be stored, used and disposed of in accordance with applicable regulations. In addition, chemicals will be used in the PSEC. These chemicals would be used for educational purposes, would be used in small quantities, and under the supervision of an instructor trained in the proper use, storage, and disposal of these chemicals. The College would continue to follow County, State, and federal requirements to minimize exposure and ensure safe use, storage, and disposal. The College District maintains an Office of Environmental Health and Safety that oversees the regulatory process and serves as a liaison with regulatory agencies. Based on the amount stored, nature of packaging, materials involved, and the proposed project's required compliance with applicable regulations, the risk of hazard through the routine transport, use, or disposal of hazardous materials is considered less than significant. No significant impact would occur.

The Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. California Government Code Section 65962.5 requires various state agencies to compile lists of hazardous waste disposal facilities, unauthorized releases from underground storage tanks, contaminated drinking water wells and solid waste facilities from which there is known migration of hazardous waste and submit such information to the Secretary for Environmental Protection on at least an annual basis. According to the District, there are no known hazardous materials sites on the Project site. No significant impact would occur and no additional analysis of this issue is warranted in the EIR. The buildings proposed for renovation (D120 Building, 5800 Building, Japanese Cultural Center, Stadium, Swim Pool Area Storage) could contain Asbestos Containing Materials (ACM), Asbestos Containing Construction Materials (ACCM), Regulated Asbestos Containing Materials (RACM), and/or lead based paint (LBP). If asbestos or LBP is found, standard safety procedures would be implemented to prevent worker exposure. Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The Project proposes the expansion of an existing college campus. Any hazardous materials uncovered during renovation are addressed above. No significant impact would occur.

The Project is not located on a site included on a list of hazardous materials sites. Therefore, no significant impact would occur.

The Project would not be located within a public airport land use plan area, or within two miles of a public airport, would not result in a safety hazard to people residing or working in the project area. The Project site is not located within two miles of a public airport and no significant impact would occur.

The Project would not be located within the vicinity of a private airstrip and would not subject area residents and workers to a safety hazard. The Project site is not located within the vicinity of a private airstrip, and therefore the Project would not result in a safety hazard for people residing or working in the Project area. No significant impact would occur.

The Project would not interfere with roadway operations used in conjunction with an emergency response plan or emergency evacuation plan nor would it generate traffic congestion that would interfere with the execution of such a plan. The Project would not involve changes to the existing surrounding arterial street network, including emergency routes. However, the Project proposes changes to circulation around the Project site, including safety improvements and PE Access Road improvements. The improvements would reduce traffic conflicts and improve pedestrian and bicycle safety, thereby potentially improving emergency access. Therefore, there are no direct impacts to emergency response planning. However, an increase in congestion on area streets, including streets used for emergency routes could be caused by the increase in enrollment and employment as a result of Project implementation. The potential for significant impacts related to emergency response planning indirectly through an increase in congestion will be evaluated in Section IV.F (Transportation/Traffic) the Draft EIR.

The Project would be located in proximity to wildland areas that could pose a potential fire hazard and could affect persons or structures in the area in the event of a fire. Foothill College is located in what is presently designated by the Town of Los Altos Hills and by Santa Clara County Fire as the local Wildland-Urban Interface Fire Area (WUI). Both the Town and Santa Clara County Fire have maps that delineate the borders the WUI. The provisions of CBC Chapter 7A apply to Local Agency Very High Fire Hazard Severity Zones as designated by Cal Fire or areas designated by the enforcing agency to be at a significant risk from wildfire (WUI). Foothill College is considered to be in an area of significant risk from wildfire.

While the "draft" Cal Fire maps have not been finalized by the State or adopted locally as of this date and, therefore, are not applicable, when those maps are ready for local adoption, the Town of Los Altos Hills and Santa Clara County Fire intend to add the areas of and around Foothill College as being within the local WUI. Therefore, any new construction on the campus would be required to comply with the provisions of CBC Chapter 7A and this impact would be less than significant.

Mitigation Measures

Mitigation Measure IV.A-HAZ.1a

A specification produced by a California Certified Asbestos Consultant for the abatement of the ACM, ACCM and RACM shall be prepared and should be the basis for selecting contractors to perform the proposed abatement work.

Mitigation Measure IV.A- HAZ.1b

A State of California licensed asbestos abatement contractor shall be retained to perform the asbestos abatement of the ACM, ACCM and RACM noted at the site. The general contractor for the renovation project may be a source for local licensed abatement contractors.

Mitigation Measure IV.A- HAZ.1c

Contractors performing work that disturbs ACM, ACCM and RACM at the site shall implement appropriate work practices in accordance with applicable California Occupational Safety & Health Administration (Cal-OSHA) worker exposure regulations as well as the regulatory requirements of the Asbestos Hazard Emergency Response Act.

Mitigation Measure IV.A- HAZ.1d

A California DHS Certified Lead Project Designer shall prepare a specification for the abatement of the LBP identified in the LBP survey.

Mitigation Measure IV.A- HAZ.1e

A State of California licensed lead abatement contractor shall be retained to perform the abatement of the LBP. The general contractor for the renovation work can be a source for local licensed abatement contractors.

Mitigation Measure IV.A- HAZ.1f

Contractors performing work that disturbs painted components at the site shall implement appropriate work practices in accordance with applicable Cal-OSHA worker exposure regulations.

Mitigation Measure IV.A- HAZ.1g

Any repainting or renovation activities shall be conducted in a cautious manner, using methods that minimize the disturbance of LBP. Practices used shall not cause airborne concentrations of lead to exceed the applicable OSHA Permissible Exposure Limit (PEL) for airborne lead. In particular, any cutting, torching, grinding, or dry sanding of the painted components covered by the LBP shall not be performed, as these activities could contribute to airborne lead concentrations above the applicable PEL.

Personal air monitoring of renovation workers could be conducted to assess airborne lead concentrations during work activities that disturb the LBP or lead containing paints.

HYDROLOGY

The Project would not violate any water quality standards or waste discharge requirements nor would it otherwise substantially degrade water quality. As discussed above, the Project site is bordered to the south by Adobe Creek and to the north by the Purissima Creek. Adobe Creek originates in the northeastern slopes of the Santa Cruz Mountains and ultimately flows into the San Francisco Bay through the Palo Alto Flood Basin. The Purissima Creek is a seasonal earthen drainage that helps to treat pollutants in site runoff before the runoff flows into Adobe Creek east of I-280. Adobe Creek conveys runoff from the southerly half of the Project site and the Purissima Creek conveys runoff from the northerly half of the Project site and nearby residential neighborhoods.[13]

The Project would include extension of existing bioswales to infiltrate stormwater in Lot 1H. Lots 4 and 5/6 would include construction of bioswales and infiltration strips to match lot improvements made under Measure E, and which would capture runoff from the parking lots. Infiltration trenches surrounding buildings that receive roof drain water would be improved to capture rooftop runoff. Additionally, landscape renovations are planned for areas in what are now compacted soil areas, in the central campus area and would improve infiltration of rainfall into soils. Design features would be incorporated into the Project to capture run-off from the site and operation of the proposed Project would not include activities which would result in point source discharges of contaminants to surface or subsurface waters.

However, construction of the Project would require grading which would expose surface soils to erosion and could potentially result in sediment discharges to surface water. Construction activities would not take place in the immediate vicinity of the Adobe Creek or Purissima Creek. Potential adverse effects of non-point source (i.e., diffuse) sediment discharges include increases in suspended sediment load of streams draining the Project. Increased sediment loads could possibly degrade habitat within the streams or cause sedimentation which may affect hydraulic conditions (e.g., flood capacity or erosion hazards). Without proper mitigation, the proposed Project could contribute to the degradation of existing surface water quality conditions, primarily due to: 1) potential erosion and sedimentation during the grading phase; 2) automobile/street-generated pollutants (i.e., oil and grease, tire wear, etc.); 3) fertilizers associated with landscaping; and 4) particulate matter from dirt and dust generated on the site. The proposed buildings would primarily be located on previously paved surfaces in Parking Lots 4 and 5/6. Final designs and locations of the proposed buildings and extensions of bioswales and infiltration strips in parking lots have not been determined; therefore, hydrological studies or plans have not been undertaken for the Project. Because the Adobe Creek Watershed falls within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), stormwater runoff would be managed to

[13] *Foothill-De Anza Community College District, Foothill College Projects Draft Environmental Impact Report, March 2002.*

adhere to the SFBRWQCB requirements and, if applicable, the National Pollution Discharge Elimination System (NPDES). Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project would not include deep excavations resulting in the potential to interfere with groundwater movement nor involve withdrawal of groundwater or substantial paving of existing permeable surfaces important to groundwater recharge. The Project site is already mostly developed and the Project would be similar to existing uses. According to the Purissima Hills Water District, water for the Project site is supplied from the Hetch Hetchy reservoir.[14] As such, the proposed Project would not substantially deplete groundwater supplies or interfere with groundwater recharge. No significant impact would occur.

The Project would not involve a substantial alteration of drainage patterns that results in a substantial increase in erosion or siltation during construction or operation of the Project. The area proposed for construction of the Scene Shop is currently paved and used as a parking lot. Therefore, construction of this building would not result in the alternation of drainage patterns on the site. Most of the areas proposed for construction of the PSEC are currently covered with buildings and paving. Because most of the existing uses on the Project site would remain in their current locations and the proposed buildings would be located on previously paved areas of Parking Lots 4 and 5/6, the position of the proposed buildings and individual projects would not substantially alter existing drainage patterns. Final designs and locations of the proposed buildings and parking lot expansions have not been determined; therefore, hydrological studies or plans have not been undertaken for the Project. Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project would not result in increased runoff volumes during construction or operation of the project that would result in flooding conditions affecting the Project site or nearby properties. Grading and construction activities may change the existing drainage patterns of the site. If not properly designed, the proposed Project could result in flooding during runoff conditions. The Project would include extension of existing bioswales to infiltrate stormwater in Lot 1H. Lots 4 and 5/6 would include construction of bioswales and infiltration strips to match lot improvements made under Measure E, and which would capture runoff from the parking lots. Infiltration trenches surrounding buildings that receive roof drain water would be improved to capture rooftop runoff on site. Additionally, landscape renovations are planned for areas in what are now compacted soil areas, in the central campus area and would improve infiltration of rainfall into soils. Final designs and locations of the proposed buildings and parking lot expansions have not been determined; therefore, hydrological studies or plans have not been undertaken for the Project. Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems nor provide substantial additional sources of polluted runoff. The

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[14] *Phone correspondence with Patrick Walter, General Manager, Purissima Hills Water District, June 7, 2007.*

Project site collects stormwater via three systems: dry wells and rockbed dry wells, swales, and drop inlets. Dry wells collect water from building gutters and rainwater leaders, swales collect water from building rainwater leaders and from overland flow, and drop inlets collect water into an underground storm drain system. The primary storm drain system on the Project site consists of 4-, 6-, 8-, 10-, 12-, and 18-inch storm drain pipes.[15] In addition to the replacement of some storm drains around buildings campus-wide, the Project proposes the renovation of existing drainage facilities as well as expansion and construction of bioswales and infiltration strips in the parking lots. Development of the PSEC building and Scene Shop would occur for the most part on the previously developed, impervious surfaces of Lots 4 and 5/6 and would result in a small increase in impermeable surface on the Project site. Although this increase in runoff would be minimal, implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project would not place housing within a 100-year flood zone. No housing is proposed as part of the Project. No significant impact would occur.

The Project would not place structures within a 100-year flood plain which would impede or redirect flood flows, nor would it expose people or structures to a significant risk of loss, inquiry or death involving flooding, including flooding as a result of the failure of a levee or dam. Areas adjacent to Adobe Creek and Purissima Creek, primarily along the northern and southern boundary of the project site, are within a 100-year flood hazard area.[16] Neither the PSEC nor the Scene Shop would be constructed within a 100-year floodplain. The construction footprint of the pedestrian bridge from Parking Lot 1 has not yet been determined. However, the bridge could be located close to Adobe Creek. Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project site would not be sufficiently close to the ocean or other water body to be potentially at risk of the impacts of seismically-induced tidal phenomena (seiche and tsunami) nor would it be located adjacent to a hillside area with soil characteristics that would indicate potential susceptibility to mudslides or mudflows. Seiches are standing waves created by seismically induced ground shaking (or volcanic eruptions or explosions) that occur in large, freestanding bodies of water. Tsunamis, or seismic tidal waves, are caused by off-shore earthquakes which can trigger large, destructive sea waves. The nearest enclosed body of water, Felt Lake, is located approximately four miles northwest of the Project site, San Francisco Bay is located approximately seven miles north of the Project site, and the Pacific

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[15] *Foothill-De Anza Community College District, Foothill College Projects Draft Environmental Impact Report, March 2002.*

[16] *Federal Emergency Management Agency (FEMA), FEMA Flood Insurance Rate Map, Los Altos Hills, San Mateo County, California, Community Panel Number 0603420002B, website: http://map1.msc.fema.gov/idms/IntraView.cgi?ROT=0&O_X=9115&O_Y=2966&O_ZM=0.078386&O_SX=870&O_SY=465&O_DPI=400&O_TH=65111580&O_EN=65120669&O_PG=1&O_MP=1&CT=0&DI=0&WD=14839&HT=10206&JX=1008&JY=525&MPT=0&MPS=0&ACT=0&KEY=65110042&ITEM=1&PICK_VIEW_CENTER.x=361&PICK_VIEW_CENTER.y=166&R1=VIN, Accessed June 28, 2007.*

Ocean is located approximately sixteen miles west of the Project site.[17] There would be no significant impact as a result of seiches or tsunamis because of the Project site is not located sufficiently close to these bodies of water. There would be no significant impact as a result of mudflow because a majority of the Project site is located on a hill. No significant impact would occur.

Mitigation Measures

Mitigation Measure IV.A-HYD.1a

Prior to development of individual projects, the District shall be required to submit and oversee implementation of a Storm Water Pollution Prevention Plan (SWPPP) for the respective project or project components as they are constructed, in accordance with the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity. The SWPPP shall detail the treatment measures and best management practices (BMPs) to control pollutants and an erosion control plan that outlines erosion and sediment control measures that would be implemented during the construction and post-construction phases of project development. In addition, the SWPPP shall include construction-phase housekeeping measures for control of contaminants such as petroleum products, paints and solvents, detergents, fertilizers, and pesticides. It shall also describe the post-construction BMPs used to reduce pollutant loadings in runoff and percolate once the site is occupied (e.g., grassy swales, wet ponds, and educational materials) and shall set forth the BMP monitoring and maintenance schedule and responsible entities during the construction and post-construction phases. The SFBRWQCB and District shall enforce compliance with the regulatory requirements of the General Permit.

Mitigation Measure IV.A- HYD.1b

As individual projects are designed, the District would incorporate features (such as on-site detention) into the projects or elsewhere on the site to reduce future peak runoff flows leaving the site to or below existing levels. The College would consult with the Santa Clara Valley Water District regarding the District's requirements for runoff control. The College District would incorporate its runoff control features into any future College project that would result in an increase in peak runoff leaving the Project site.

For every project resulting in changes to the storm water collection system, the District shall include a system of source control, structural improvements, and treatment systems to protect long-term water quality. These measures to treat runoff shall be designed to meet the maximum extent practicable (MEP) treatment standard in the Clean Water Act consistent with the MEP standard as defined in the Santa Clara Valley Urban Runoff Pollution Prevention Program Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit. BMPs that shall be considered include:

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[17] *Google Earth, 2007.*

1. Grass strips and grassy swales where feasible to reduce runoff and provide initial storm water treatment.

2. Storm drains will discharge to natural surfaces or swales where possible to avoid excessive concentration and channelization of storm water.

3. If necessary, small retention or detention basins will be considered to maximize the retention time for settling of fine particles.

To meet the MEP standard, treatment BMPs shall be constructed that incorporate, at a minimum, the following hydraulic sizing design criteria to treat stormwater runoff. This sizing shall consider local rainfall data to design appropriately sized BMPs.

Volume Hydraulic Design Basis: Treatment BMPs whose primary mode of action depends on volume capacity, such as detention/retention units or infiltration structures, shall be designed to treat stormwater runoff equal to:

1. The maximized stormwater quality capture volume for the area, based on historical rainfall records, determined using the formula and volume capture coefficients set forth in *Urban Runoff Quality Management, WEF Manual of Practice No.* 23/*ASCEManual of Practice No.* 87, (1998), pages 175~178 (e.g., approximately the 85th percentile 24-hour storm runoff event); or

2. the volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with the methodology set forth in Appendix D of the *California Stormwater Best Management Practices Handbook,* (1993), using local rainfall data.

Flow Hydraulic Design Basis: Treatment BMPs whose primary mode of action depends on flow capacity, such as swales, sand filters, or wetlands, shall be sized to treat:

1. 10 percent of the 50-year peak flow rate; or

2. the flow of runoff produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or

3. the flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity.

Mitigation Measure IV.A- HYD.1c

Alternatively, the District would prepare a Master Drainage Plan for the Project site. The Plan would incorporate the information on existing and anticipated future drainage patterns, existing drainage problems, and the existing storm drain system. The analysis of future drainage patterns would take into account the contribution of the remainder of the Adobe Creek watershed. The College would include drainage controls for all projects that result in an increase in impervious surfaces, to keep peak runoff rates at or below pre-project levels for the 100-year storm (or for a lesser design storm, if the Water

District uses such a storm in its flood control planning for individual project sites). The College would consult with the Santa Clara Valley Water District regarding the District's requirements for runoff control.

Mitigation Measure IV.A- HYD.2

Prior to any building activity along the northern or southern boundaries of the Project site, the District shall review the location to verify whether any structures are within the current FEMA 100 year flood plain. If they are, the District shall take action to revise the current FEMA FIRM to reflect existing elevations in the vicinity of the proposed building areas. This action shall include a detailed computerized flood hazard analysis in accordance with current standards set forth by FEMA. If the detailed analysis shows that the proposed development area is outside of the 100-year flood plain and floodway, the development could be constructed in the area proposed with no further mitigation. If the analysis does not show that the proposed development area is outside of the 100-year flood plain and floodway, appropriate flood plain management measures should be incorporated into the location and design of new buildings or roadways. The determination of the appropriate mitigation measures shall be made by a qualified civil engineer or hydrologist.

LAND USE & PLANNING

The Project would not physically divide an established community. Because the Project proposes construction, renovation, and site improvements within a Project site that does not have an existing residential community, implementation of the proposed Project would not create a physical barrier within an established community. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

The Project would not conflict with applicable land use plan, policy or regulation of an agency with jurisdiction over the project. The College is part of the California Community College System and, therefore, the Town of Los Altos Hills General Plan does not have jurisdictional authority over the Project site. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

The Project site would not be located within an area governed by a habitat conservation plan or natural community conservation plan. As stated in the discussion under Biological Resources, the Project site is not a part of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or State habitat conservation plan. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

MINERAL RESOURCES

The Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state nor would it result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. The Project site is not designated by the State in the Town of Los Altos Hills General Plan as

an area of mineral resource. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

POPULATION AND HOUSING

The Project would not locate new development such as homes, businesses or infrastructure, with the effect of substantially inducing growth that would otherwise not have occurred as rapidly or in as great a magnitude. Employment opportunities provided by construction of the proposed Project would not likely result in household relocation by construction workers to the area. Construction workers would likely be drawn from the construction employment labor force already residing in the region. It is not likely that construction workers would relocate their place of residence as a consequence of working on the proposed project. Therefore, impacts on population and housing resulting from the construction of proposed Project would be less than significant. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

Community college students typically attend colleges that are within an easy commute distance from their existing places of residence. Therefore, the proposed Project would not create a need for new housing units, the construction of which could cause an environmental impact. The proposed infrastructure improvements at the Project site would not induce growth because it would only serve the projected student and staff population. Therefore, development of the proposed Project would not indirectly induce substantial population growth and impacts related to population and housing would be less than significant. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

The Project would not result in displacement of existing housing units or substantial numbers of people, necessitating construction of replacement housing elsewhere. The Project site does not contain any residential land uses and the Project does not propose expansion of the campus beyond the existing site. As such, implementation of the proposed Project would not result in the displacement of housing and no additional analysis of this issue is warranted in the EIR.

PUBLIC SERVICES

The Project would not result in a substantial adverse physical impact associated with the provision of fire services and the need for new or physically altered fire facilities. Implementation of the proposed Project would result in the construction of additional campus facilities and improvement of existing facilities, which may increase demand for fire protection services at the Project site. However, the Santa Clara County Fire District (SCCFD) has indicated that the proposed Project would not be expected to require additional fire facilities or staffing. The performance standards for the SCCFD include a response time goal of seven minutes 90 percent of the time and, for emergency medical services calls, a response time goal for a fire company with at least one paramedic to arrive in less than seven minutes 90 percent of the

time.[18] Should a fire or medical emergency occur at the Project site, the SCCFD estimates that the response time would be approximately four minutes, and would, therefore, satisfy the relevant response time goal.[19] The El Monte Fire Station is located on the Project site and the Project is within the desired service radius. The Project proposes to improve circulation to improve pedestrian safety, widen PE Access Road, and install pedestrian and exterior lighting. These components of the Project would improve emergency access to the Project site and potentially reduce the risk of injury to pedestrians, motorists, and bicyclists, and, therefore, the need for medical response. With respect to fire flow and pressure, Purissima Hills Water District has indicated it receives 100 percent of its water from the San Francisco Public Utilities Commission (SFPUC) and is 25 to 35 percent over the SFPUC supply assurance. While this situation may affect irrigation water availability for landscaping purposes, it would not affect water pressure on campus with respect to fire hydrants.[20] The SCCFD has indicated that as a result of facilities upgrades, adequate fire flow and pressure are available at the Project site.[21] However, fire flow and pressure vary throughout the Project site due to topographical changes. Implementation of the mitigation measure below would reduce this impact to a less-than-significant level.

The Project would not result in a substantial adverse physical impact associated with the provision of police services and the need for new or physically altered police facilities. Implementation of the proposed Project would result in the construction of additional campus facilities and improvement of existing facilities, which may increase demand for police protection services at the Project site. The Project site is served by the Foothill-De Anza Police Department (FHDAPD) Foothill Campus Main Station located on the Project site. The FHDAPD has indicated that the proposed Project would not be expected to require additional police facilities. The FHDAPD is currently understaffed and additional staffing would be required to serve the Project.[22] However, the increase in staffing typically does not require construction of police facilities as officers are patrolling the majority of their time on duty. Due to the Foothill Campus Main Station's location on the Project site, the relatively small area of the Project site, and the use of patrol vehicles, response times to requests for police assistance are minimal. As discussed above, the improvements to circulation on the Project site could increase the efficiency and safety of traffic and pedestrians, potentially reducing the need for police assistance. The Project site has a history of relatively little criminal activity, with 57 crimes and 9 arrests reported in 2004.[23] As discussed above, pedestrian and exterior lighting would be installed throughout the Project site. Reducing the

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[18] *Email correspondence with Steve Prziborowski, Chief, Santa Clara County Fire District, July 25, 2007.*

[19] *Ibid,*

[20] *Email correspondence with Patrick Walter, General Manager, Purissima Hills Water District, June 14, 2007.*

[21] *Phone correspondence with Fred Amadkani, Water and Access Deputy, Santa Clara County Fire District, August 1, 2007.*

[22] *Phone correspondence with Ron Levine, Chief of Police, Foothill-De Anza Community College District Police Department, June 22, 2007.*

[23] *Foothill College, Summary Reports, website: http://www.foothill.edu/services/studentright1.html, Accessed June 12, 2007.*

amount of unlit areas that could attract criminal activity on the Project site could potentially deter criminal activity and, therefore, the need for police assistance. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

The Project would not result in a substantial adverse physical impact associated with the provision of school services and the need for new or physically altered school facilities. The Project is an expansion of community college school services, which are analyzed in this EIR. The Project would not include substantial employment or population growth, which could generate demand for other elementary, middle, or high school facilities that exceeds the capacity of the school district(s) responsible for serving the Project site. Public education within Los Altos Hills is administered by the Palo Alto Unified School District (PAUSD), the Los Altos School District (LASD), and the Mountain View- Los Altos Union High School District (MVLA). Students from the northern section of Los Altos Hills attend schools in the PAUD and students from the southern section of Los Altos Hills attend schools in the LASD and MVLAS.[24] The proposed Project would not be expected to generate an influx of new Project-related residents (students or employees) to any of the school districts previously mentioned. Therefore, the proposed Project would not require the construction of new school facilities. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

The Project would not include substantial employment or population growth that generates a demand for park or recreational facilities, which would require the construction of new parks or result in non-attainment of goals related to the provision of parklands. Although the Project would increase the number of students and employees on the campus, it would not directly increase the number of residents in the area. Students attending classes on campus would likely only use school recreational facilities and would not be expected to use any Town of Los Altos Hills recreational facilities unless they are already residents of the Town. Therefore, the proposed Project would not cause a significant impact with regard to the demand for recreational facilities or parks. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

The Project would not generate a demand for other public facilities (such as libraries) that exceeds the available capacities. As stated in the discussion under Population and Housing, the proposed Project does not include any residential uses that could directly increase population within the surrounding area, thereby increasing the demands for library services. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

Mitigation Measures

Mitigation Measure IV.A-PUB SERV.1

Fire sprinklers shall have a minimum flow of 1,500 gallons per minute at 20 pounds per square inch (psi).

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[24] *City of Los Altos Hills, School Districts, website: http://www.losaltoshills.ca.gov/government/support-agencies.html, Accessed June 7, 2007.*

RECREATION

The Project would not include substantial employment or population growth which could generate a demand for park or recreational facilities that exceeds the capacity of existing parks or recreational facilities and causes premature deterioration of the facilities. The Project would increase the number of students and employees on the campus. Rancho San Antonio County Park is the closest park to the Project site (approximately one mile southeast). However, it is unlikely that students and employees would use this park when similar facilities are already available on the Project site. As discussed above under Public Services, the proposed Project would not cause a significant impact with regard to the demand for recreational facilities or parks. As the proposed Project's demand for park services is considered to be less than significant, Project impacts on maintenance of those facilities would likewise be less than significant. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

The Project would not include the construction or expansion of recreational facilities, and therefore would not have a significant impact on the environment. The Project proposes to renovate existing fields at the northwestern portion of the Project site to include new artificial turf and construction of additional support facilities, including dugouts, restrooms, bleachers, and a concession stand in addition to resurfacing the tennis courts and repairing fences. These facilities would replace existing facilities on the site or augment existing uses located in developed areas. Overall, the proposed on-site recreational facility improvements would serve to enhance the existing recreational facilities at the campus, but are not anticipated to attract substantial numbers of new users or spectators to the Project site. No significant impact would occur and no additional analysis of this issue is warranted in the EIR.

UTILITIES AND SERVICE SYSTEMS

The Project would not exceed wastewater treatment requirements of the Regional Water Quality Control Board. This issue would typically apply to properties served by private sewage disposal systems, such as septic tanks. Section 13260 of the California Water Code states that persons discharging or proposing to discharge waste that could affect the quality of the waters of the State, other than into a community sewer system, shall file a Report of Waste Discharge (ROWD) containing information which may be required by the appropriate Regional Water Quality Control Board (RWQCB). The RWQCB then authorizes a NPDES permit that ensures compliance with wastewater treatment and discharge requirements. The SFRWQCB enforces wastewater treatment and discharge requirements for properties in the Project area. The City of Los Altos provides sewer service to the already-developed Project site.[25] Uses proposed by the Project would be similar to existing uses on the Project site and, therefore, no uses are proposed (e.g., industrial uses) that would generate wastewater in exceedence of RWQCB treatment requirements. No significant impact is would occur.

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[25] *Phone correspondence with Larry Lind, Associate Civil Engineer, City of Los Altos, June 7, 2007.*

The Project would increase water consumption or wastewater generation to such a degree that the capacity of facilities currently serving the project site would be exceeded. A significant impact may also occur if the proposed Project would increase water consumption to such a degree that new water sources would need to be identified, or that existing resources would be consumed at a pace greater than planned for by purveyors, distributors, and service providers. Implementation of the proposed Project would result in the construction of additional campus facilities which would increase the amount of sewage generated at the Project site. The City of Los Altos has indicated that there are no deficiencies in the Project area's sewer systems and that the eight-inch sanitary sewer main has adequate capacity to handle the proposed Project. The City of Los Altos has been allotted a capacity of 3.6 million gallons per day (mgd) for treatment of wastewater at the Palo Alto Regional Water Quality Control Plant (PARWQCP) and is currently using 3.22 mgd; thus, 0.38 mgd of wastewater treatment capacity remains. The District buys capacity rights based on a maximum flow rate from the City of Los Altos for flows to the PARWQCP. Treated water is discharged in the San Francisco Bay or used as recycled water to irrigate parks and golf courses.[26] [27] According to the City of Los Altos, the District may need to purchase remaining capacity from the City of Los Altos for the PARWQCP to serve the demands of the proposed Project. Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

Implementation of the proposed Project would result in the construction of additional campus facilities which would increase the amount of potable water consumed at the Project site. As stated in the discussion under Hydrology and Water Quality, water from the Hetch Hetchy Reservoir and Sunol Valley Water Treatment Plant is provided to the Project site by Purissima Hills Water District (PHWD) from the Zone 3 distribution system pressurized by the Altamont Tank at approximately 790 feet above mean sea level. The PHWD has indicated that there is a shortage of water in the Project area. However, the PHWD has indicated that the Zone 3 distribution system has adequate capacity to handle the proposed Project and that the proposed Project would be adequately served by existing SFPUC water supplies and treatment facilities. The PHWD receives 100 percent of its water from the SFPUC and is 25 to 35 percent over the SFPUC supply assurance. During a drought irrigation water may not be available which may seriously impact landscapes.[28] Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

As discussed above, the PHWD has indicated that existing water supplies would be able to adequately serve the proposed Project. Therefore, no new or expanded water entitlements would be required. No significant impact would occur.

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[26] *City of Palo Alto, Palo Alto Regional Water Quality Control Plant: Process Tour, website: http://www.city.palo-alto.ca.us/depts/pubworks/waterquality/tour/index.html, Accessed June 8, 2007.*

[27] *City of Palo Alto, Regional Water Quality Control Plant: Water Reuse Program, website: http://www.city.palo-alto.ca.us/waterreuse/, Accessed June 8, 2007.*

[28] *Email correspondence with Patrick Walter, General Manager, Purissima Hills Water District, June 14, 2007.*

The Project site would not require or result in the construction of new storm drain facilities serving the Project site. Implementation of the proposed Project would result in an increase in the amount of impermeable surfaces on the Project site. The Project proposes to construct two new buildings, widen PE Access Road, expand Parking Lots 1-H and 4, and install artificial turf at the soccer, baseball, and softball complex. Development of the PSEC building and Scene Shop would occur for the most part on the previously developed, impervious surfaces of Lots 4 and 5/6 and would result in a small increase in impermeable surface on the Project site. The Project would include extension of existing bioswales to infiltrate stormwater in Lot 1H. Lots 4 and 5/6 would include construction of bioswales and infiltration strips to match lot improvements made under Measure E, and which would capture runoff from the parking lots. Infiltration trenches surrounding buildings that receive roof drain water would be improved to capture rooftop runoff on site. Additionally, landscape renovations are planned for areas in what are now compacted soil areas, in the central campus area and would improve infiltration of rainfall into soils. To minimize the amount of runoff during project operation, the Project would be required to incorporate a number of source control BMPs. Final designs and locations of the proposed buildings and parking lot expansions have not been determined; therefore, hydrological studies or plans have not been undertaken for the Project. However with incorporation of required BMPs, runoff amounts would not be increased over existing amounts on the site and there would be no increase in runoff from the Project site requiring the construction of new storm drainage facilities. With the implementation of the mitigation measures listed under Hydrology and Water Quality, impacts would be mitigated to less-than-significant levels.

The proposed Project would increase wastewater generation to such a degree that the capacity of facilities currently serving the Project site would be exceeded. As discussed above, the City of Los Altos has indicated that the District may need to purchase remaining capacity from the City of Los Altos to accommodate additional flows to the PARWQCP. Implementation of the mitigation measures below would reduce this impact to a less-than-significant level.

The Project would not increase solid waste generation to a degree that existing and projected landfill capacities would be insufficient to accommodate the additional solid waste. Implementation of the proposed Project would result in the construction of additional campus facilities which would increase the amount of solid waste generated at the Project site. Los Altos Garbage Company, the private hauler that provides solid waste collection and transportation services to the Project site, transports solid waste from the Project site to the Newby Island Landfill located at 1601 Dixon Landing Road in the City of Milpitas.[29] The Newby Island Landfill, which is expected to close in 2025, has a total remaining capacity of 18,274,953 cubic yards and an allowable daily capacity of 4,000.00 tons per day.[30] The Project proposes the construction of two buildings providing approximately 41,368 assignable square feet of building space. According to the California Integrated Waste Management Board, the generation rate for

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[29] *Phone correspondence with John Candau, Operations Manager, Los Altos Garbage Company, June 8, 2007.*

[30] *California Integrated Waste Management Board, Facility/Site Summary Details, website: http://www.ciwmb.ca.gov/SWIS/detail.asp?PG=DET&SITESCH=43-AN-0003&OUT=HTML, Accessed June 13, 2007.*

education/school sources is 0.0013 tons / square feet / year.[31] Therefore, operation of the additional building space proposed by the Project is expected to produce approximately 53.8 tons of solid waste per year. This increase in solid waste on a daily basis would be a very small percentage of the daily waste handled by the landfill and the proposed Project would not be expected to exceed the capacity of or significantly impact the Newby Island Landfill. No significant impact would occur.

The Project would not generate solid waste that is not disposed of in accordance with applicable regulations. Solid waste generated on-site would be required to be disposed of in accordance with all applicable federal and State regulations related to solid waste. No significant impact would occur.

Mitigation Measures

Mitigation Measure IV.A-UTIL.1a

The District shall consult with the City of Los Altos as projects are designed and prior to construction to determine if the District will need to purchase additional capacity to accommodate flows resulting from the Project.

Mitigation Measure IV.A- UTIL.1b

Recommended water conservation features shall be installed, such as low-flow showerheads, toilets, and urinals, low-flow faucet aerators in sink faucets, and water-conserving clothes washers and dishwashers.

Mitigation Measure IV.A- UTIL.1c

Drought-tolerant, low water consuming plant varieties shall be selected where feasible and appropriate.

Mitigation Measure IV.A- UTIL.1d

A landscape irrigation system that provides uniform irrigation coverage for each landscape zone to the maximum extent feasible, with sprinkler head patterns adjusted to minimize over spray onto walkways and streets, shall be designed and implemented.

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[31] *California Integrated Waste Management Board, Estimated Solid Waste Generation Rates for Institutions, website: http://www.ciwmb.ca.gov/WasteChar/WasteGenRates/Institution.htm, Accessed June 13, 2007.*

IV. ENVIRONMENTAL IMPACT REPORT
B. AIR QUALITY

INTRODUCTION

This section describes existing air quality conditions in the region and potential project impacts to local and regional air quality. Mitigation measures to reduce or eliminate potentially significant air quality impacts are identified, where appropriate. This section has been prepared using methodologies and assumptions recommended in the air quality impact assessment guidelines of the Bay Area Air Quality Management District (BAAQMD).[1] The EIR preparers reviewed the BAAQMD permit application for the proposed project, which is included in Appendix B of this Draft EIR.

The Project proposes construction, renovation, and site improvement projects on the Project site to accommodate an estimated increase in enrollment at the College of approximately 2,839 students over the next ten years. The Project proposes the construction of two buildings providing approximately 62,500 square feet of building space, including approximately 41,000 square feet of assignable space. Once the Project is completed, building space on the Project site would total approximately 699,000 square feet, including approximately 487,000 square feet of assignable space. Circulation and parking improvements include improvements to the Loop Road and PE Access Road, various circulation improvements and three footbridge connections to reduce traffic conflicts and improve pedestrian and bicycle safety, parking lot expansion and resurfacing, and the addition of approximately 240 parking spaces.

AIR QUALITY SETTING

The Project site is located within the San Francisco Bay Area Air Basin (Basin). The Basin encompasses approximately 5,600 square miles and includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, Santa Clara, and San Mateo counties, the western portion of Solano County, and the southern portion of Sonoma County.

Climate and Meteorology

The Basin is large and shallow and is adjacent to both the Pacific Ocean and the San Francisco Bay. The Basin is surrounded by coastal mountain ranges with sheltered inland valleys. Marine air coming into the Basin from the Pacific Ocean creates cool summers, mild winters, and infrequent rainfall. The average temperature in Los Altos ranges from 62 to 78 degrees Fahrenheit (F°). The highest temperatures generally

[1] *BAAQMD, 1999, BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans, December.*

occur in late summer or early fall, and can reach into the 80s. Low temperatures, around 38F°, generally occur in December and January.[2]

The Town of Los Altos Hills is located within the County of Santa Clara, which is situated in the south-eastern portion of the Basin. The Town is bordered on the east by the San Francisco Bay, the south by the Santa Cruz mountains, and the west by the Pacific Ocean. The Town has relatively good air quality despite its extensive urbanized area, vehicles, and the degree of industrial sources in the vicinity. The Bay Area's coastal location and favorable meteorology help to keep its pollution levels low most of the time.[3]

The highest ozone levels and concentrations of other pollutants typically are recorded in the inland areas of the Basin, such as Livermore, Concord, Los Gatos, and Gilroy. However, when there are no ocean breezes and temperatures are hot, the levels of ozone and other pollutants can exceed the standards. According to the CARB, air quality has been improving steadily over the past decade, with steadily declining total volatile organic compounds (VOC) and nitrogen oxides (NOx) emissions over time[4]

REGULATORY SETTING

In recognition of the adverse effects of degraded air quality, Congress and the California Legislature enacted the federal and California Clean Air Acts, respectively. As a result of these laws, the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for what are commonly referred to as "criteria pollutants", because they set the criteria for attainment of good air quality. Criteria pollutants include carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, and particulate matter.[5]

Air Quality Standards

The Federal Clean Air Act (CAA) of 1970, and subsequent Federal Clean Air Act Amendments (CAAA) of 1977 and 1990, required the establishment of national ambient air quality standards (NAAQS) for six "criteria pollutants" (Table IV.B-1). The standards are intended to protect all aspects of the public health and welfare with a reasonable margin of safety. The criteria pollutants are ozone, particulate matter, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. The CAA and CAAA require the states to designate areas as attainment or non-attainment for each criteria pollutant NAAQS (Table IV.B-2).

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2 *World Climate, http://www.worldclimate.com, Source, averages derived from 1,015 months between 1893 and 1996.*

3 *California Air Resource Board. 2001. The Biogenic Emission Inventory Geographic Information System www.ladco.org/biogenics/beigis/presentaton/beigis_coding_demo/index.htm*

4 *Ibid.*

5 *Additionally, state standards have been promulgated for lead, sulphates, hydrogen sulphide and visibility reducing particles. The state also recognizes vinyl chloride as a toxic air contaminant. Discussion of these criteria pollutants will not be discussed in detail as the Project is not expected to emit them.*

Particulate matter has two separate standards: respiratory particulate matter (PM_{10})[6] and fine particulate matter ($PM_{2.5}$).[7] The CAA and CAAA also require that states develop State Implementation Plans (SIP) for areas that are in non-attainment for any of the NAAQS.

Table IV.B-1
California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standard	National Standard	Violation Criteria	
				California	National
O_3	1-hour	0.09 ppm	–0.12	If exceeded	If exceeded on more than 3 days in 3 years.
	8-hour	0.070 ppm	0.08 ppm	If exceeded	If the fourth highest 8-hour concentration in a year, averaged over 3 years, is exceeded.
PM_{10}	24-hour	50 µg/m^3	150 µg/m^3	If exceeded	If expected number of days with average 24-hr concentration is over one.
	Annual mean	30 µg/m^3	50 µg/m^3	If exceeded	If exceeded.
$PM_{2.5}$	24-hour	–50 µg/m^3	65 µg/m^3	If exceeded	If 98% of average 24-hour daily concentration, averaged over 3 years, is exceeded.
	Annual mean	50 µg/m^3	15 µg/m^3	If exceeded	If exceeded.
CO	1-hour	20 ppm	35 ppm	If exceeded	Not to be exceeded more than one day a year.
	8-hour	9.0 ppm	9 ppm	If exceeded	Not to be exceeded more than one day a year.
NO_2	1-hour	0.25 ppm	–	If equaled or exceeded	NA
	Annual mean	–	0.053 ppm	NA	Not to be exceeded more than one day a year.
SO_2	1-hour	0.25 ppm	–	If equaled or exceeded	NA
	24-hour	0.04 ppm	0.14 ppm	If equaled or exceeded	Not to be exceeded more than one day a year.
	Annual mean	–	0.03 ppm	NA	Not to be exceeded more than one day a year.

Source: CARB Ambient Air Quality Standards Table, 29 November 2005.

Notes: ppm = parts per million.g/m^3 = micrograms per cubic meter."–" = no standard. NA = not applicable.

[6] *At or smaller than ten microns in size.*

[7] *At or smaller than 2.5 microns in size.*

Table IV.B-2
Ambient Air Quality Attainment Status for San Francisco Air Basin

Pollutant	State-Level Attainment Status	National-Level Attainment Status
Ozone (1-hour)	Non-attainment (serious)	N/A
Ozone (8-hour)	Unclassified	Non-attainment (marginal)
Respiratory Particulates (PM_{10})	Non-attainment	Attainment
Fine Particulates ($PM_{2.5}$)	Non-attainment	Attainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Hydrogen Sulfide	Attainment	N/A
Vinyl Chloride	No information available	N/A
Visibility Reducing Particles	Attainment	N/A

Note: N/A = not applicable
Source: CARB, http://www.arb.ca.gov/desig/adm/adm.htm, updated February 3, 2006.

Analogous to the CAA and CAAA, the 1988 California Clean Air Act (CCAA) establishes California ambient air quality standards (CAAQS) (Table IV.B-1) and also requires areas of the state to be designated as attainment or non-attainment areas for the CAAQS (Table IV.B-2). In addition to standards for the criteria pollutants identified under the CAA, the CCAA includes standards for hydrogen sulfide, vinyl chloride, and visibility reducing particles. Under the CCAA, air districts not meeting CAAQS for ozone, CO, SO_2, or NO_2 are required to prepare attainment plans intended to improve air quality and attain the standards.

In California, the task of air quality management and development of regulations has been legislatively granted to the California Air Resources Board (CARB) and local air quality management districts. The BAAQMD is the local air quality management district for the Project. The BAAQMD coordinates with CARB in the effort to ensure that the Basin complies with both national and state standards.

Hazardous air pollutants (HAPs) or toxic air contaminants (TACs) are a category of air pollutants regulated separately from criteria pollutants. The TACs are suspected, or known, to cause cancer, birth defects, neurological damage, or death. There are no established ambient air quality standards for TACs; instead they are managed on a case-by-case basis depending on the quantity and type of emissions, and proximity to potential receptors. Their effects tend to be localized and directly attributable to specific stationary sources.

Air Quality Planning and Attainment Status

The CARB is responsible for oversight of air quality management in the state, including establishing emissions standards and regulations for certain mobile sources (e.g., autos, light duty trucks) and overseeing the efforts of local air quality management districts. At the local level, the BAAQMD is responsible for

demonstrating that attainment of the ambient air quality standards is either achieved, based on data from air monitoring stations, or will be achieved through regional planning. BAAQMD directly regulates stationary emission sources through its permit authority and indirectly manages emissions from mobile sources through coordination with regional municipalities and transportation planning agencies. Air plans for the Basin are prepared by BAAQMD in cooperation with the Metropolitan Transportation Commission (MTC), and the Association of Bay Area Governments (ABAG).

The Bay Area Air Basin is currently classified as a "non-attainment" area for the 8-hour national ozone standard and the 1-hour ozone, PM_{10}, and $PM_{2.5}$ state standards. For all other criteria pollutants, the Bay Area is classified as either in "attainment" or "unclassified." The air quality standards and attainment status are summarized in Table IV.B-2.

As a serious non-attainment area for the CAAQS for ozone, the Basin is required to adopt measures requiring best available retrofit control technology (BARCT) on existing sources of air pollution, and best available control technology (BACT) for new and modified sources with a potential to emit ten pounds per day or more of ozone precursors. The CCAA does not require planning documents for PM_{10} or $PM_{2.5}$ non-attainment areas; however, CARB is aggressively pursuing policies to reduce particulate matter emissions from mobile sources. On a statewide basis, diesel exhaust is estimated to account for one percent of the airborne PM_{10} and two percent of the airborne $PM_{2.5}$.[8]

The BAAQMD works with CARB to prepare plans for attaining and maintaining ambient air quality standards in the Basin, adopt and enforce rules and regulations concerning air pollutant sources, issue permits for stationary sources of air pollutants, inspect stationary sources of air pollutants, monitor ambient air quality and meteorological conditions, award grants to reduce motor vehicle emissions, and conduct public education campaigns. The Bay Area Clean Air Plan (CAP) and subsequent updates are developed in cooperation with MTC and the ABAG. The ABAG develops projections of future population and transportation trends, which are used to develop and evaluate strategies to bring the Basin into compliance with national and state air quality standards. The first CAP was adopted in 1991, and updates to the CAP occurred in 1994, 1997, and, most recently, 2000.

Criteria Pollutant Health Effects

Air pollutants come from stationary sources, area-wide sources, mobile sources, and natural sources. Much of the degradation of ambient air quality in the Basin is due to emission of criteria air pollutants from intensive use of motor vehicles (mobile sources).[9] Stationary sources (emissions from industry or urban development) contribute significantly less criteria pollutants to the ambient air. The primary pollutants of concern for the Basin are ozone, carbon monoxide, and particulate matter (PM_{10} and $PM_{2.5}$).

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[8] *CARB, 2006, The California Almanac of Emissions and Air Quality.*

[9] *Ibid.*

Ozone

Ozone is not emitted directly into the environment, but generated from complex chemical reactions in the presence of sunlight. The primary chemicals involved in these reactions are nitrogen oxides (NOx) and reactive organic gases (ROG); these components are often referred to as ozone precursors. The single largest source of ozone precursors in the Basin is motor vehicle exhaust. Ozone exposure causes eye irritation and damage to lung tissue in humans. Ozone also harms vegetation, reduces crop yields, and accelerates deterioration of paints, finishes, rubber products, plastics, and fabrics. The Basin is in non-attainment for the national and state ozone standards.

Carbon Monoxide (CO)

CO is released directly into the atmosphere by stationary and mobile sources. CO is an odorless, colorless gas formed by the incomplete combustion of fuels. The primary source of CO is motor vehicle emissions. The CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood when inhaled at high concentrations. Symptoms from exposure to high levels of CO include headaches, fatigue, slow reflexes, and dizziness.[10] The Basin is currently in attainment for the national and state CO standards. In contrast to ozone, which is a regional pollutant, CO has a localized impact because it dissipates fairly quickly as the distance increased from the source.[11] For this reason, CO is evaluated where it is likely to create high concentrations or "hot spots", such as highly congested intersections, where there are nearby human receptors.

PM_{10}

PM_{10} is also released directly into the atmosphere by stationary and mobile sources. The PM_{10} consists of a wide range of solid and liquid particles, including smoke, dust, aerosols, and metallic oxides. Similar to ozone precursors and CO, the single largest source of PM_{10} is motor vehicles. Approximately 50 percent of the particulate matter in the Basin is due to motor vehicles. PM_{10} is emitted from automobile tailpipes, brake pad and tire wear, and movement of road dust from vehicle travel. PM_{10} is among the most harmful of all air pollutants. PM_{10} evades the respiratory system's natural defenses and can lodge deep in the lungs when inhaled. PM_{10} can aggravate chronic respiratory diseases and can cause health problems for everyone, although children, the elderly, and those suffering from asthma, bronchitis, heart disease, or lung disease are more vulnerable. Long-term exposure to PM_{10} at levels exceeding state standards can lead to an increase in respiratory and cardiac illness, exacerbation of asthma and chronic bronchitis, and increased death rates. Short-term exposure to PM_{10} may lead to increased emergency room visits and an increase in days of restricted activity. The Basin is currently in attainment for the national PM_{10} standard, but is in non-attainment for the state PM_{10} standard.

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[10] *Ibid.*

[11] *Ibid.*

$PM_{2.5}$

Fine particulate matter, $PM_{2.5}$, are those particles with an aerodynamic diameter less than or equal to 2.5 microns. $PM_{2.5}$ is classified as either primary or secondary particulates. Primary $PM_{2.5}$ is either carbonaceous or geological (crustal), but predominantly consists of carbonaceous $PM_{2.5}$, which is generated from combustion of fossil fuels or biomass. Carbonaceous $PM_{2.5}$ combustion sources include gasoline and diesel exhaust, wood stoves and fireplaces, land clearing, prescribed burning of wild land, and wild fires. Geological (crustal) $PM_{2.5}$, which makes up a minor amount of primary $PM_{2.5}$, is generated from fugitive emission sources, including paved and unpaved roads, dust, crustal material from construction activities, agricultural tilling, and wind erosion. Secondary $PM_{2.5}$ is created through atmospheric heterogeneous (gas to particle) reactions of gaseous oxides of sulfur (SOx) and NOx precursor emissions. The reactions involve chemical and physical interactions with the precursor emissions in the atmosphere.

Exposure to fine particulate matter has been linked to a variety of health problems; including bronchitis, acute and chronic respiratory symptoms (e.g., shortness of breath and painful breathing), and premature death. People with existing heart or lung disease (e.g., chronic obstructive pulmonary disease, congestive heart disease, ischemic heart disease) are at risk of premature death or admission to hospitals or emergency rooms when exposed to $PM_{2.5}$. The elderly, individuals with cardiopulmonary disease, and children appear to be at greatest risk. Most of the premature deaths are among the elderly because their immune systems are generally weaker due to age or other health problems. Children are also susceptible to the health risks of $PM_{2.5}$ because their immune and respiratory systems have not yet matured. In addition, $PM_{2.5}$ particles are a major source of visibility impairment in most parts of the United States. The Basin is currently unclassified for the national $PM_{2.5}$ standard, but in non-attainment for the state $PM_{2.5}$ standard.

Toxic Air Contaminants (TACs)

The Legislature enacted the Air Toxics Hot Spots Information and Assessment Act, AB 2588 (Toxics Hot Spots Act), in September 1987. This law requires stationary sources to report the types and quantities of certain substances their facilities routinely release into the air. Emissions of interest are those that result from the routine operation of a facility or that are predictable, including but not limited to continuous and intermittent releases and process upsets or leaks. The goals of the Air Toxics Hot Spots Act are to collect emission data, identify facilities having localized impacts, ascertain health risks, and notify nearby residents of significant risks based on estimated cancer and non-cancer health risks. Senate Bill 1731 amended the Toxics Hot Spots Act in 1992 to require owners of facilities that produce emissions resulting in significant health risks to the public to reduce their impact on air quality to an acceptable level.

The BAAQMD's Toxics Hot Spots Program is intended to identify and reduce ambient concentrations of TACs. TACs are non-criteria air pollutants. CARB identifies 192 substances as TACs (CCR §93001). The Toxics Hot Spots program includes the evaluation of health risks due to routine and predictable TAC emissions from industrial and commercial facilities. The BAAQMD has established specific public notification measures for various levels of risk identified under the program (Levels 1, 2, and 3). Level 3 corresponds to a cancer risk greater than 500 people in a population of one million (500 per million); Level 2

corresponds to a cancer risk between 100 and 500 per million; and Level 1 corresponds to a cancer risk between 10 and 100 per million.

Approximately 90 percent of the health risk from TACs in the Bay Area is due to diesel particulate matter (DPM), benzene, and 1,3-butadiene, primarily from mobile sources.[12] The majority of that risk is from DPM, which CARB identified as a TAC in 1998. Mobile sources such as trucks, buses, automobiles, trains, ships, and farm equipment are the largest source of diesel emissions.

Diesel Particulate Matter

In 2000, the EPA identified DPM as a "likely human carcinogen." The EPA established a comprehensive national control program to regulate diesel fuel and heavy-duty diesel vehicles. The program includes new regulatory standards based on the use of alternative fuels and high-efficiency exhaust emission control devices. The standards include the following major requirements:

- Promulgated particulate matter emissions standard for new heavy-duty engines of 0.01 gram per brake-horsepower-hour (g/bhp-hr), were initiated in 2007.
- Required refiners to produce diesel fuel for use in highway vehicles with sulfur content of no more than 15 parts per million (ppm) was regulated as of June 1, 2006. By June 2007, refiners were required to produce low-sulfur (500 ppm) diesel fuel for off-road, locomotive, and marine diesel engines. Besides reducing emissions from the existing diesel fleet, these clean fuels will enable the use of advanced after-treatment technologies such as catalytic reduction systems on new engines.
- Required technologies like particulate traps, capable of emission reductions of 90 percent, under new standards set to begin phasing into the highway sector in 2007 and into the off-road sector in 2011.

Although the new EPA standards will improve diesel emissions in the future, these standards will primarily impact new engines. Because of their durability and long life, older uncontrolled diesel engines would continue to make up a significant portion of the heavy-duty vehicle fleet for years to come. As a result, efforts are underway to improve emissions from diesel engines already in operation and include a variety of strategies from fuel reformulation to engine retrofit through the Voluntary Diesel Retrofit Program.

The California Air Resources Board (CARB) identified particulate emissions from diesel-fueled engines as a toxic air contaminant (TAC) in August 1998. In California, mobile sources, such as trucks, buses, automobiles, trains, ships, and farm and construction equipment, are the largest source of diesel emissions. On-road engines account for about 27 percent of the emissions, off-road engines about 66 percent, and

[12] *Ibid.*

stationary and portable engines for the remaining seven percent.[13] CARB estimates that diesel engine emissions are responsible for a majority of California's estimated cancer risk attributable to air pollution.[14] The California Air Resources Board formed the Diesel Advisory Committee consisting of staff from CARB, EPA, state and local agencies, industry, environmental groups, and interested public to study this issue. With the help of the committee, CARB developed a Diesel Risk Reduction Plan to reduce particulate matter emissions from diesel-fueled engines and vehicles, which was approved on September 28, 2000.[15] The Diesel Risk Reduction Plan calls for reducing diesel PM 75 percent by 2010 and 85 percent by 2020 from the 2000 level. The plan contains the following components:

- New regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce diesel PM emissions by about 90 percent, overall, from current levels;
- New retrofit requirements for existing on-road, off-road, and stationary diesel-fueled engines and vehicles where determined to be technically feasible and cost effective; and
- New Phase 2 diesel fuel regulations to reduce the sulfur content of diesel fuel to no more than 15 parts per million to provide the quality of diesel fuel needed by the advanced diesel PM emission controls.

Although the new EPA standards will improve diesel emissions in the future, these standards will primarily impact new engines. Because of their durability and long life, older diesel engines will continue to make up a significant portion of the heavy-duty vehicle fleet for years to come. As a result, efforts are underway to improve emissions from diesel engines already in operation and include a variety of strategies from fuel reformulation to engine retrofit through the Voluntary Diesel Retrofit Program.

Greenhouse Gases

Gases that trap heat in the atmosphere are called greenhouse gases. The major concern is that increases in greenhouse gases as a result of human activity are contributing to Global Climate Change. Global Climate Change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. Although there is tremendous disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, most agree that there is a direct link between increased emission of so-called greenhouse gases and long-term global temperature. What greenhouse gases have in common is that they allow sunlight to enter the atmosphere, but trap a portion of the outward-bound infrared radiation and warm up the air. The process is similar to the effect greenhouses have in raising the

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[13] *CARB, 2000, Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, 28 September.*

[14] *Ibid.*

[15] *Ibid.*

internal temperature, hence the name greenhouse gases. Both natural processes and human activities emit greenhouse gases. The accumulation of greenhouse gases in the atmosphere regulates the earth's temperature, but emissions from human activities such as electricity production and motor vehicles have elevated the concentration of greenhouse gases in the atmosphere.

This accumulation of greenhouse gases has contributed to an increase in the temperature of the earth's atmosphere and contributed to Global Climate Change, also known as global warming. The principal greenhouse gases are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H_2O). Carbon dioxide is the reference gas for climate change because it is the most prevalent greenhouse gas. To account for the warming potential of greenhouse gases, emissions of all greenhouse gases are often quantified and reported as CO_2 equivalents (CO_2E). Large emission sources are reported in million metric tons of CO_2 equivalents.

State Standards

In 2005, Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which statewide emission of greenhouse gases would be progressively reduced, as follows:

- By 2010, reduce greenhouse gas emissions to 2000 levels;
- By 2020, reduce greenhouse gas emissions to 1990 levels; and
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill No. 32, or AB 32; Health and Safety Code, Sections 38500, et seq.). AB 32 identifies global warming as a serious environmental threat with the potential to exacerbate air quality problems, reduce the quantity and supply of water from the Sierra snowpack, cause a rise in sea levels, damage marine ecosystems, and increase human health-related problems. AB 32 requires CARB to adopt rules and regulations that, by 2020, would achieve greenhouse gas (GHG) emissions equivalent to statewide levels in 1990. On April 20, 2007, CARB published Proposed Early Actions to Mitigate Climate Change in California, a list of discrete greenhouse gas emission reduction measures that can be implemented. Emission reductions shall include carbon sequestration projects and best management practices that are technologically feasible and cost-effective. As defined under AB 32, GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. By January 1, 2009, CARB must design and adopt an overall plan to reduce GHG emissions to 1990 levels, including the recommendation of a de minimis threshold for GHG emissions below which emission reduction requirements would not apply. CARB has until January 1, 2011 to adopt the necessary regulations to implement that plan. Implementation begins no later than January 1, 2012 and the emissions reduction target must be fully achieved by January 1, 2020.

Under the law, CARB, the State Energy Resources Conservation and Development Commission (Energy Commission), and the California Climate Action Registry all have responsibilities with respect to the control of emissions of greenhouse gases, and the Secretary for Environmental Protection is required to coordinate emission reductions of greenhouse gases and climate change activity in state government. AB 32 does not indicate what role local land use planning should play in the statewide strategy, however, nor identifies implications to environmental review under CEQA. Guidelines on how to prepare an impact assessment for a project's GHG emissions contribution to Global Climate Change (GCC), or identified a significance threshold for project impacts have yet to be developed by CARB, the California EPA, the U.S. EPA, or any other appropriate governmental organizations.

The CARB is proposing "Early Action Measures" in three groups: discrete early action measures; additional greenhouse gas reduction strategies; and **c**riteria and air toxic control measures. Together these measures will make a substantial contribution to the overall 2020 statewide GHG emission reduction goal of approximately 174 million metric tons of carbon dioxide equivalent[16] gases.[17] These measures that would relate to potential climate change impacts from the proposed Project are summarized as follows. It should be noted that none of the early action measures address how local agencies should address GHG emissions associated with land use approvals. The Early Action Measures are discussed in more detail below:

Group 1: Discrete Early Action Measures

Three new GHG-only regulations are proposed to meet the narrow legal definition of "discrete early action GHG reduction measures": a low-carbon fuel standard, reduction of refrigerant losses from motor vehicle air conditioning system maintenance, and increased CH_4 capture from landfills. These regulations are expected to take effect by January 1, 2010.

- Measure 1-1, Low carbon fuel standard.

Group 2: Additional Greenhouse Gas Reduction Strategies

The CARB is initiating work on 23 other GHG emission-reducing measures in the 2007 to 2009 time period with rulemaking to occur as soon as possible, where applicable. These GHG measures relate to the following sectors: agriculture, commercial, education, energy efficiency, fire suppression, forestry, oil and gas, and transportation.

- Measure 2-6 and 2-7, Education: Guidance/protocols for local governments and businesses to facilitate GHG emission reductions.

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[16] *The term "carbon dioxide equivalent" is used to account for the differences in global warming potential among the six greenhouse gases.*

- Measures 2-14, Transportation: Heavy-duty vehicle emission reductions, efficiency improvements.
- Measure 2-20, Transportation: Tire inflation program.

Group 3: Criteria and Air Toxic Control Measures

The CARB is initiating work on ten conventional air pollution controls aimed at criteria and toxic air pollutants, but with concurrent climate co-benefits through reductions in CO_2 or non-Kyoto pollutants (i.e., diesel particulate matter, other light-absorbing compounds, and/or ozone precursors) that contribute to global warming.

- Measure 3-1, Fuels: Diesel – Commercial harbor craft rule.
- Measure 3-2, Fuels: Diesel – Privately owned on-road trucks.
- Measure 3-3, Fuels: Diesel – Vessel speed reductions.
- Measure 3-4, Fuels: Diesel – Offroad equipment (non-agricultural).
- Measure 3-10, Fuels: Evaporative standards for aboveground tanks.

In consultation with CARB and the California Public Utilities Commission, the California Energy Commission (CEC) is currently establishing a GHG emission performance standard for local, public-owned electric utilities (pursuant to Senate Bill No. 1368). This standard will limit the rate of GHG emissions to a level that is no higher than the rate of emissions of GHGs for combined-cycle natural gas base-load generation. The rulemaking shall consider, but not necessarily be limited to, establishing a GHG emission performance standard for baseload generation facilities, which has been in operation since June 30, 2007, a process for calculating the emissions of GHGs from baseload facilities and enforcing the standard, and a process for reevaluating and revising as necessary the GHGs emission performance standard. This standard must take into consideration the effect of the standard on rates, reliability, and financial resources, while recognizing the Legislature's intent to encourage use of renewable resources and its goal of environmental improvement.

In 2007, Governor Schwarzenegger signed SB 97, which requires the California Resources Agency, by 2010, to adopt guidelines for the mitigation of GHG emissions and their effects, including effects associated with transportation. SB 97 also amended CEQA to state that the failure to adequately analyze the effects of GHG emissions in a CEQA document for certain transportation projects shall not create a cause of action for a violation of the statute until 2010 or later.

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[17] *CARB, 2007, Proposed Early Actions to Mitigate Climate Change in California, 20 April.*

On June 19, 2008 the California Office of Planning and Research issued the Technical Advisory titled "CEQA and CLIMATE CHANGE: Addressing Climate Change Through CEQA Review". This technical advisory was published to provide Professional Planners, Land use Officials and CEQA practitioners with a basic guidance for addressing the emerging role of CEQA in addressing climate change and Greenhouse Gas Emissions within CEQA documents.

AIR QUALITY REGULATIONS – STATIONARY SOURCES

Federal Regulations

Title V Operating Permit

Title V was added to the Clean Air Act in 1990, and introduced an operating permit program. It requires EPA to promulgate regulations setting forth provisions under which states would develop operating permit programs for major facilities and submit them to the EPA for approval. A major facility is defined as "any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit ten tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants".[18] The BAAQMD is the local agency with permit authority over most types of stationary emission sources, which the BAAQMD exercises through its Rules and Regulations.

Standards of Performance for New Stationary Sources

Section 111 of the Clean Air Act, "Standards of Performance of New Stationary Sources," requires U.S. EPA to establish national emission standards for source categories, which cause or contribute significantly to air pollution. These standards are intended to promote use of the best air pollution control technologies, taking into account the cost of such technology and any other non-air quality, health, and environmental impact and energy requirements. The U.S. EPA has established New Source Performance Standards (NSPS) for several source categories (40 CFR 60). The New Source Performance Standards program is implemented by the BAAQMD.

Prevention of Significant Deterioration

The Prevention of Significant Deterioration (PSD) process requires states in their SIPs to ensure that areas already in compliance with the national ambient air quality standards do not deteriorate to, or above, those standards at a rapid rate. Such areas, depending upon the quality of their air in a baseline year, must control the emissions of certain pollutants such that the concentration of those pollutants increases no more than the allowable increment as set forth in the CAA. Before any new source may be built or any existing source may

[18] *Clean Air Act, Sec. 112. Hazardous Air Pollutants.*

be modified, such sources must apply for and be issued a PSD permit, which demonstrates that they will comply with the PSD program. The BAAQMD also administers this program through Rules and Regulations.

BAAQMD Regulations

The CEQA Guidelines[19] state that "each public agency should, in its implementing regulations or ordinances, provide an identification or itemization of its projects and actions which are deemed ministerial under the applicable laws and ordinances." The BAAQMD has determined that the issuance of permits following prescribed procedures is a ministerial activity.[20]

BAAQMD Permits

Permits, prepared in accordance with the BACT/TBACT Workbook and Permit Handbook, are deemed "ministerial" for the purposes of CEQA. Permits that deviate from these documents, or permits for sources not covered by either document, will be reviewed on a case-by-case basis for compliance with CEQA.[21] The air emission achievement standards for hot mix asphalt plants using BACT are:

- 12 parts per million by volume (ppmv) NOx at 15 percent oxygen (O_2) dry;
- 133 ppmv CO at 15 percent O_2 dry; and
- 0.01 grain per dry standard cubic foot

BAAQMD's Rules and Regulations that Apply to the Proposed Project

Regulation 1 General Provisions and Definitions

This regulation contains the general provisions and definitions of the terms used in the BAAQMD's rules. The standard for violations of air pollution regulations are defined as a public nuisance, i.e., "No person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property." For purposes of this section, three or more violation notices validly issued in a 30 day period to a facility for public nuisance shall give rise to a rebuttable presumption that the violations resulted from negligent conduct.

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[19] *Title 14, CCR, Chapter 3, Guidelines for Implementation of California Environmental Quality Act.*

[20] *Bay Area Air Quality Management District, Permit Handbook Chapters, retrieved from website: www.baaqmd.gov/pmt/handbook/default.htm*

[21] *Ibid.*

Regulation 2, Rule 1 Permits – General Requirements

The BAAQMD's Regulation 2, Rule 1 describes the permit requirements for sources of air pollution. In general, any equipment or operation that emits pollutants into the atmosphere requires a Permit to Operate from the BAAQMD unless it is excluded from BAAQMD Regulations per Regulation 1 or exempted from BAAQMD permit requirements by a specific section of Regulation 2 Rule 1. According to BAAQMD Regulation 1 Rule 2-1-113.2.11 Teaching laboratories are exempt from the requirements of sections 2-1-301 and 302. Sections 2-1-301 and 302 are the Standards for the Authority to Construct and Permit to Operate respectively.

Regulation 7 Odorous Substances

This Regulation places general limitations on odorous substances and specific emission limitations on certain odorous compounds. A person must meet all limitations of this Regulation, but meeting such limitations shall not exempt such person from any other requirements of the BAAQMD, state or federal law. The limitations of this regulation shall not be applicable until the BAAQMD receives odor complaints from ten or more complainants within a 90-day period, alleging that a person has caused odors perceived at or beyond the property line of such person and deemed to be objectionable by the complainants in the normal course of their work, travel, or residence. When the limits of this regulation become effective, as a result of citizen complaints described above, the limits shall remain effective until such time as no citizen complaints have been received by BAAQMD for one year. The limits of this Regulation shall become applicable again when the BAAQMD receives odor complaints from five or more complainants within a 90-day period.

Regulation 8 Organic Compounds Rule 2 – Miscellaneous Operations

This regulation incorporates the provisions of the federal regulations for the reduction of precursor organic compounds emissions from miscellaneous operations. According to 8-2-116.9, laboratory equipment used exclusively for chemical or physical analysis and bench scale laboratory equipment are exempt.

Regulation 10 Standards of Performance for New Stationary Sources

This regulation incorporates the provisions of the federal regulations for new stationary source review (Title 40 of the Code of Federal Regulations Part 60; Standards of Performance for New Stationary Sources) as discussed earlier.

EXISTING CONDITIONS

Air Quality – Santa Clara County

Mobile sources, such as motor vehicles, produce most of the air pollutants in the County. The state regulates air pollution from mobile sources through exhaust emissions standards, while local agencies can reduce emissions through improvement in the transportation system to reduce trips or traffic congestion. Stationary

sources include mining operations, industrial and agricultural activities, and lumber mills. The BAAQMD regulates stationary sources through the Title V permitting process.

BAAQMD operates a network of air monitoring sites within the Basin. The monitoring stations nearest to the Project site are in Mountain View and, approximately 5 miles east of the Project site, and Sunnyvale Ticonderoge approximately 6 miles south east of the Project site. The ambient air concentrations of hydrogen sulfide and sulfur dioxide are not monitored at these stations because they are not expected to exceed air quality standards. Table IV.B-3 and Table IV.B-4 summarize air quality data for the criteria pollutants measured from these monitoring stations during the 2004-2006 reporting period. Table IV.B-3 presents the available data from the nearest monitoring station (Sunnyvale), while Table IV.B-4 presents the data from the nearest station reporting 5 of the criteria pollutants (Redwood City). The tables also summarize the number of days that the state or national standards were exceeded. The tables show that the state 1 hour ozone standard was exceeded each of the years presented from the Sunnyvale station, but only for the 2004 report for the Redwood City report. The data indicate the monitoring stations have exceeded the measured state 24-hour PM_{10} State Standard each year presented and the $PM_{2.5}$ standard in 2006. None of the other national and state standards was exceeded during the past three years.

Table IV.B-3
Sunnyvale - Ambient Air Monitoring Station

Pollutant	Measurement	2004	2005	2006
Ozone	Highest 1-hour average (ppm)	0.10	0.097	0.106
	Highest 8-hour average (ppm)	0.08	0.073	0.078
	Days over State 1-hour standard (0.09 ppm)	1	1	3
	Days over National 1-hour standard (0.12 ppm)	0	-	-
	Days over National 8-hour standard (0.08 ppm)	0	0	0

Notes: ($\mu g/m^3$) = micrograms per cubic meter ppm = part per million — = insufficient data NA = not available
Source: CARB website http://www.arb.ca.gov

Table IV.B-4
Redwood City - Ambient Air Monitoring Station

Pollutant	Measurement	2004	2005	2006
Ozone	Highest 1-hour average (ppm)	0.10	0.084	0.085
	Highest 8-hour average (ppm)	0.07	0.061	0.063
	Days over State 1-hour standard (0.09 ppm)	1	0	0
	Days over National 1-hour standard (0.12 ppm)	0	0	0
	Days over National 8-hour standard (0.08 ppm)	0	0	0
Carbon Monoxide	Highest 8-hour average (ppm)	2.1	2.3	2.4
PM_{10}	Highest State 24-hour average ($\mu g/m^3$)	65	81	70
	Highest National 24-hour average ($\mu g/m^3$)	-	-	-
	Days over State 24-hour standard (50 $\mu g/m^3$)	1	2	2
	Days over National 24-hour average (150 $\mu g/m^3$)	0	0	0
$PM_{2.5}$	Highest National 24-hour average ($\mu g/m^3$)	36	30.9	75.3
	3-year State annual average ($\mu g/m^3$)	32	27.8	29.4
	Days over National 24-hour standard (65 ($\mu g/m^3$)	0	0	1
Nitrogen Dioxide	Highest 1-hour measurement (ppm)	0.06	0.062	0.069
	Annual average (ppm)	0.015	0.015	0.014
	Days over State 1-hour standard (0.25 ppm)	0	0	0

Notes: ($\mu g/m^3$) = micrograms per cubic meter ppm = part per million — = insufficient data NA = not available
Source: CARB website http://www.arb.ca.gov

The California Air Resources Board's (CARB) stationary source facility database indicates that the facilities shown in Table IV.B-5 are major air pollutant dischargers in Los Altos Hills. The data represent emission inventory estimates for the year 2006.

CARB maintains emission inventory data from stationary sources within the County. Table IV.B-6 presents the emission inventory for ROG, CO, NO_x, PM_{10} and $PM_{2.5}$ for Santa Clara County in 2006. The inventory indicates that, as stated earlier, motor vehicles are the largest contributor to degradation of the air quality in the County. For non-mobile sources, consumer products and farming operations are the largest contributors to ROG, residential fuel consumption and food and agricultural processing are the largest contributors to CO and NO_x, and residential fuel consumption and construction and demolition are the largest contributors to PM_{10} and $PM_{2.5}$.

Table IV.B-5
Existing Facilities in Los Altos Hills, Emission Inventory (tons/year)

Facility Name	Address	ROG	CO	NOx	SOx	PM_{10}
Albertsons	2175 Grant Road	0	0	0	0	0
California Water Service Company	1555 Miramonte Avenue	0	0	0	0	0
California Water Service Company	Magdalena Avenue	-	0	0.2	0	0
Chevron Products Company	470 S. San Antonia Road	0.7	0	0	0	0
Foothill De Anza Community College	12345 El Monte Road	0.1	0.7	2.6	0	0.1
Pacific Bell	61 N San Antonio Avenue	-	0	0	0	0

Source: California Air Resources Board, Direct Point Sources, website: http://www.arb.ca.gov/ei/areasrc/pointsources.htm, July 2, 2008.

Table IV.B-6
Santa Clara County - 2006 Estimated Annual Average Stationary Sources Emissions (tons/day)

Category	ROG	CO	NO_x	PM_{10}	$PM_{2.5}$
Stationary Sources					
Fuel Combustion	0.48	11.82	7.86	0.60	0.59
Waste Disposal	0.91	0.00	0.04	0.00	0.00
Cleaning and Surface Coating	7.56	0.00	0.00	0.00	-
Petroleum Production and Marketing	2.76	-	-	-	-
Industrial Processes	1.79	11.84	8.82	2.73	1.83
Total Stationary Sources	**13.51**	**11.84**	**8.82**	**2.73**	**1.83**
Area Wide Sources					
Solvent Evaporation	18.12	-	-	-	-
Miscellaneous Processes	3.24	37.59	4.59	43.58	11.58
Total Areawide Sources	**21.36**	**37.59**	**4.59**	**43.58**	**11.58**
Mobile Sources					
On-Road Motor Vehicles	31.00	294.11	51.07	2.40	1.68
Other Mobile Sources	15.19	114.62	34.27	1.85	1.67
Total Mobile Source	46.19	408.73	85.34	4.25	3.35
Santa Clara County Total	***81.05***	***458.17***	***98.75***	***50.55***	***16.76***

Source: California Air Resources Board, California Counties, website: http://www.arb.ca.gov/ei/maps/statemap/cntymap.htm, July 2, 2008.

Sensitive Receptors

Ambient air quality standards have been established to identify air quality levels considered sufficient, with an adequate margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14, the elderly over 65, persons engaged in strenuous work or exercise, and people with cardiovascular and acute to chronic respiratory diseases. Areas of specific concern are where sensitive receptors are to be found, such as facilities that house or attract children, the elderly, or people with illnesses; or places where people engage in strenuous work or exercise.

The nearest school and daycare center to the proposed Project is the Project site itself. There will be students attending class and participating in athletic activities during the construction and operation of the Project. These sensitive receptor locations are situated all around the Project site. The nearest off site sensitive receptors are the residents of the homes along the southwest edge of the campus, approximately 70 feet.

ENVIRONMENTAL IMPACTS

The proposed Project would affect air quality during construction and operation. The criteria of significance for air quality impacts are identified below and are followed by a discussion of impacts.

Thresholds of Significance

According to the environmental checklist in the *CEQA Guidelines,*[22] a project could have a potentially significant air quality impact 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 non-attainment under an applicable national or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

[22] *California Code of Regulations (CCR), 2004. Title 14, Chapter 3, Guidelines to Implementation of the California Environmental Quality Act, Appendix G, 6 February.*

BAAQMD has developed thresholds of significance for ROG, NO_x, and PM_{10} emissions from Project operations as the result of vehicle trips and area source emissions (Table IV.B-7). Project related ROG, NO_x, or PM_{10} emissions would be considered significant if they would were to exceed BAAQMD thresholds.

Table IV.B-7
BAAQMD Thresholds of Significance

Pollutant	Pounds/Day	Tons/Year
ROG	80	15
NO_X	80	15
PM_{10}	80	15
Source: BAAQMD CEQA Guidelines, 1999.		

BAAQMD recognizes that construction equipment emit ozone precursors, but that these emissions are temporary and are generally accounted for in the emission inventory projections that provide the basis for regional air quality plans.[23] Therefore, temporary ROG, NO_x, and PM_{10} emissions during construction are not expected to impede attainment or maintenance of ozone standards in the Bay Area.

The BAAQMD CEQA Guidelines emphasize implementation of effective and comprehensive control of PM_{10} emissions rather than a detailed quantification of construction emissions.[24] The BAAQMD does not consider air quality impacts resulting from construction activities significant if appropriate construction control mitigation measures listed in the BAAQMD guidelines are incorporated.[25] The BAAQMD guidelines specify that an evaluation of the potential for CO "hot spots" at intersections as a result of a project should be performed where:

- Vehicle emissions of CO would exceed 550 pounds per day;
- Project traffic would impact intersections or roadway links operating at Levels of Service (LOS) D, E, or F or would cause LOS to decline to D, E, or F; or
- Project traffic would increase traffic volumes on nearby roadways by ten percent or more. CO concentrations need not be estimated if the increase in traffic volume is less than 100 vehicles per hour.

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[23] *BAAQMD, 1999, op. cit.*

[24] *Ibid.*

[25] *Ibid.*

Under the guidelines, projects contributing to CO concentrations exceeding the CAAQS of nine parts per million (ppm) averaged over eight hours and 20 ppm for one hour (i.e., if it creates a "hot spot") would be considered to have a significant air quality impact. The BAAQMD's Risk Management Policy has set a health risk threshold for significance impacts due to TACs at the "probability of contracting cancer for the maximally exposed individual exceeds ten in one million" and a "ground-level concentration of non-carcinogenic toxic air contaminants would result in a hazard index (HI) greater than one".[26]

Project Impacts

Impact IV.B-1 Project Construction Would Result in Emissions of Criteria Pollutants

Construction activities associated with development of the start-up and full build out phases of the Project would include site preparation, soil excavation, backfilling, grading, and equipment vehicular traffic on paved and possibly unpaved roads. Soil disturbance caused by construction activities could be exacerbated by wind erosion. As a result, short-term dust emissions could cause a temporary increase in localized PM_{10} emissions. PM_{10} generated from construction-related activities is highly dependent on several factors, including activity level, specific operations, equipment type, and weather conditions. The operation of construction equipment would also result in the emission of criteria pollutants $PM_{2.5}$, ROG, NO_x, and CO. Construction activities associated with Project development would also result in short-term exhaust emissions from construction-related equipment. The primary pollutants associated with exhaust emissions from construction equipment are ozone precursors (ROG and NO_x), CO, and PM_{10}.

BAAQMD considers PM_{10} emissions to be the greatest pollutant of concern associated with construction activities and has established feasible control measures for PM_{10} emissions from construction-related activities. There are several levels of appropriate control measures based on the size of the construction project. BAAQMD recommends that further optional control measures be implemented at construction areas that are large in area, located near sensitive receptors, or may for any other reason be warranted.

Project sizes that are greater than four acres are recommended to use enhanced control measures. BAAQMD would consider Project construction activities to result in a ***significant*** impact. However after the implementation of Mitigation Measure IV.B-1a and IV.B-1b, the level of impact would be reduced to a level of ***less than significant.***

[26] *The HI is calculated by summing the hazard quotients for substances that affect the same target organ or organ system (e.g., respiratory system). The hazard quotient is the ratio of potential exposure to the substance and the level at which no adverse health effects are expected. An HI of less than 1 indicates no adverse health effects are expected as a result of exposure and an HI greater than 1 indicates adverse health effects are possible.*

Mitigation Measure IV.B-1a

The following mitigation measures apply to activities associated with the proposed construction and are intended to reduce the temporary generation of fugitive dust to a less-than-significant level. The measures to reduce construction- related PM_{10} emissions reflect basic and optional dust control measures recommended by BAAQMD:

- All active construction areas shall be watered at least twice daily.
- All trucks hauling soil, sand, and other loose materials shall be covered with tarpaulins or other effective covers.
- All unpaved access roads, parking areas, and staging areas at the construction site shall be paved; otherwise, water or non-toxic soil stabilizers shall be applied to all unpaved access roads. In addition, paved access roads, parking areas, and staging areas shall be swept daily with a water sweeper. Streets shall be swept daily with a water sweeper in areas where visible soil material is carried onto adjacent public streets.
- The applicant shall hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded area inactive for ten days or more).
- The applicant shall enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- The applicant shall limit traffic speeds on unpaved roads to 15 miles per hour.
- The applicant shall install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- The applicant shall replant vegetation in disturbed areas as quickly as possible.
- The applicant shall install wheel washers for all trucks leaving the sight and wash all truck wheel before they leave the site
- During periods when trucks are transporting soil to or from the site, dirt that may have been tracked off the site shall be removed daily from the street. The area to be cleaned is to extend to the limit of noticeable dirt tracked from the site or for a distance of 75 feet on each side of a vehicle entrance or exit, whichever is greater. If water is used to clean the street, then the quantity of water used shall not result in sediment being washed into the storm sewer catch basins. Street sweepings shall be disposed of as a waste along with waste soil in accordance with applicable regulations.
- The applicant shall terminate excavation and grading activities when winds exceed 25 mph or when fugitive dust emissions are visible for a distance of at least 100 feet from the origin of such emissions, and there is visible evidence of wind driven fugitive dust. Wind speed would be determined when an

on-site anemometer registers at least two wind gusts in excess of 25 miles per hour within a consecutive 30-minute period.

Mitigation Measure IV.B-1b

Implementation of the following mitigation measures would reduce short-term exhaust emissions from construction-related equipment to a less-than-significant level:

- The idling time of all construction equipment used at the site shall not exceed five minutes.
- The applicant shall limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use.
- All equipment shall be properly tuned and maintained in accordance with the manufacturer's specifications. Emissions from all off-road diesel powered equipment used on the Project site shall not exceed 40 percent opacity for more than three minutes in any hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. A visual survey of all in-operation equipment shall be made at least weekly throughout the duration of the Project construction. A record of the inspection shall be maintained on-site. The BAAQMD and/or other officials may conduct periodic site inspections to determine compliance.
- The applicant shall require construction contractors to install particulate traps when appropriate on diesel engines.
- The applicant shall use the minimum practical engine size for construction equipment.
- Gasoline-powered equipment shall be equipped with catalytic converters, where feasible.

Impact IV.B-2 Project Operation Would Result in Emissions of Criteria Pollutants

Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities on the Project site after occupation. Stationary area source emissions would be generated by the consumption of natural gas for space and water heating devices and cooking appliances, the operation of landscape maintenance equipment, the use of consumer products, and the application of architectural coatings (paints). Mobile emissions would be generated by the motor vehicles traveling to and from the Project site.

The analysis of daily operational emissions has been prepared utilizing the URBEMIS 2007 computer model recommended by BAAQMD. Hearth emissions during winter months were not included in the analysis, as the proposed Project would not include fireplaces or wood stoves. The results of these calculations are presented in Table IV.B-8. As shown, the proposed Project would not generate a net increase in average daily emissions that exceeds the thresholds of significance recommended by the BAAQMD. Therefore, impacts from mass daily operational emissions would be less than significant.

Table IV.B-8
Estimated Daily Operational Emissions – Proposed Project

Emissions Source	Emissions in Pounds per Day					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summertime Emissions						
Natural Gas	0.04	0.60	0.51	0.00	0.00	0.00
Landscape Maintenance Equipment	0.12	0.02	1.55	0.00	0.01	0.01
Consumer Products	0.00	--	--	--	--	--
Architectural Coatings	0.37	--	--	--	--	--
Motor Vehicles	22.55	29.07	283.16	0.26	43.80	8.46
Total Net Increase	**22.55**	**29.07**	**283.16**	**0.26**	**43.80**	**8.46**
BAAQMD Thresholds	*80*	*80*	*NE*	*NE*	*80*	*NE*
Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**
Wintertime Emissions						
Natural Gas	0.04	0.60	0.51	0.00	0.00	0.00
Consumer Products	0.00	--	--	--	--	--
Architectural Coatings	0.37	--	--	--	--	--
Motor Vehicles	27.26	38.94	297.74	0.21	43.80	8.46
Total Net Increase	**27.67**	**39.54**	**298.25**	**0.21**	**43.80**	**8.46**
BAAQMD Thresholds	*80*	*80*	*NE*	*NE*	*80*	*NE*
Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**

Note: Subtotals may not appear to add up due to rounding in the URBEMIS 2007 model.

Source: Christopher A. Joseph & Associates, 2007. Calculation sheets are provided in Appendix C to this Draft EIR.

All calculated emissions are below the established BAAQMD thresholds; therefore, no mitigation measures were assigned and the air quality impacts from the operations of the proposed facility is considered ***less than significant.***

Greenhouse Gas Emissions

Generally, an individual project does not generate enough greenhouse gas emissions to influence global climate change because it is the increased accumulation of greenhouse gases which may result in global climate change. However, an individual project may contribute an incremental amount of overall GHG emissions. For most projects, the main contribution of GHG emissions is from motor vehicles, but how much of those emissions are "new" is uncertain. New projects do not create new drivers and, therefore, do not create a new mobile source of emissions. Rather, new projects only redistribute the existing traffic patterns. Larger projects will certainly affect a larger geographic area, but again, would not necessarily cause the creation of new drivers. Some mixed-use and transportation-oriented projects could actually reduce the number of vehicle miles traveled. The proposed project includes the installation of photovoltaic cells through out the campus, and thus reducing the amount of greenhouses emitted for the generation of electricity to be used by the project.

Compliance with 2006 CAT Report Strategies

The consistency of the proposed Project with the strategies from the 2006 CAT Report is evaluated in Table IV.B-9. As shown, the Project would be consistent with all feasible and applicable strategies to reduce greenhouse gas emissions in California. Therefore, the impact of the proposed Project would be less than significant.

Table IV.B-9
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
California Air Resources Board	
Vehicle Climate Change Standards AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB I September 2004.	Consistent The vehicles that travel to and from the Project site on public roadways would be in compliance with ARB vehicle standards that are in effect at the time of vehicle purchase.
Diesel Anti-Idling In July 2004, the ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Consistent Current State law restricts diesel truck idling to five minutes or less. Diesel trucks making deliveries to the Project site are subject to this State-wide law.
Hydrofluorocarbon Reduction 1) Ban retail sale of HFC in small cans. 2) Require that only low GWP refrigerants be used in new vehicular systems. 3) Adopt specifications for new commercial refrigeration. 4) Add refrigerant leak-tightness to the pass criteria for vehicular inspection and maintenance programs. 5) Enforce federal ban on releasing HFCs.	Consistent This strategy applies to consumer products which may be sold on the Foothill Campus. All applicable products purchased by Project residents and tenants would comply with the regulations that are in effect at the time of manufacture.
Transportation Refrigeration Units, Off-Road Electrification, Port Electrification (ship to shore) Require all new transportation refrigeration units (TRU) to be equipped with electric standby. Require cold storage facilities to install electric infrastructure to support electric standby TRUs. Off-road Electrification Port Electrification	 Not applicable Not applicable Not applicable Not applicable
Manure Management	Not applicable

Table IV.B-9 (Continued)
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Improved management practices, manure handling practices, and lagoon/liquid waste control options.	
Semi Conductor Industry Targets Emission reduction rules for semiconductor operations.	Not applicable
Alternative Fuels: Biodiesel Blends ARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	Consistent The diesel vehicles that travel to and from the Project site on public roadways could utilize this fuel once it is commercially available.
Alternative Fuels: Ethanol Increased use of E-85 fuel.	Consistent Students and faculty of the proposed Project could purchase flex-fuel vehicles and utilize this fuel once it is commercially available in the region and local vicinity.
Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy duty vehicles and an education program for the heavy duty vehicle sector.	Consistent The heavy-duty vehicles that travel to and from the Project site on public roadways would be subject to all applicable ARB efficiency standards that are in effect at the time of vehicle manufacture.
Reduced Venting and Leaks on Oil and Gas Systems Improved management practices in the production, processing, transport, and distribution of oil and natural gas.	Not applicable
Hydrogen Highway The California Hydrogen Highway Network (CA H2 Net) is a State initiative to promote the use of hydrogen as a means of diversifying the sources of transportation energy.	Not applicable
Achieve 50% Statewide Recycling Goal Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48% has been achieved on a statewide basis. Therefore, a 2% additional reduction is needed.	Consistent The Project would divert at least 50 percent of its solid waste after the recyclable content is diverted.

Table IV.B-9 (Continued)
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Landfill Methane Capture Install direct gas use or electricity projects at landfills to capture and use emitted methane.	Not applicable
Zero Waste – High Recycling Efforts to exceed the 50 percent goal would allow for additional reductions in climate change emissions.	Consistent The Project would divert at least 50 percent of its solid waste after the recyclable content is diverted.
Department of Forestry	
Forest Management Increasing the growth of individual forest trees, the overall age of trees prior to harvest, or dedicating land to older aged trees.	Not applicable
Forest Conservation Provide incentives to maintain an undeveloped forest landscape.	Not applicable
Fuels Management/Biomass Reduce the risk of wildland fire through fuel reduction and biomass development.	Not applicable
Urban Forestry A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	Consistent The landscaping proposed for the Project would include new trees within the open space areas of the site.
Afforestation/Reforestation Reforestation projects focus on restoring native tree cover on lands that were previously forested and are now covered with other vegetative types.	Not applicable
Department of Water Resources	
Water Use Efficiency Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.	Consistent The proposed Project would be constructed in accordance with all applicable water conservation measures mandated by the City and the State.
Energy Commission (CEC)	
Building Energy Efficiency Standards in Place and in	Consistent

Table IV.B-9 (Continued)
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Progress Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	The Project would be required to be constructed in compliance with the standards of Title 24 that are in effect at the time of development.
Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	Consistent Under State law, appliances that are purchased for the Project – both pre- and post-development – would be consistent with energy efficiency standards that are in effect at the time of manufacture.
Fuel-Efficient Replacement Tires & Inflation Programs State legislation established a statewide program to encourage the production and use of more efficient tires.	Consistent Students and faculty of the Project site could purchase tires for their vehicles that comply with State programs for increased fuel efficiency.
Cement Manufacturing Cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry.	Not applicable
Municipal Utility Energy Efficiency Programs/Demand Response Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	Consistent By generating electricity on site the proposed project aids the Municipal Utilities in achieving efficiency program goals.
Municipal Utility Renewable Portfolio Standard California's Renewable Portfolio Standard (RPS), established in 2002, requires that all load serving entities achieve a goal of 20 percent of retail electricity sales from renewable energy sources by 2017, within certain cost constraints.	Not applicable, but the Project would not preclude the implementation of this strategy by municipal utility providers.
Municipal Utility Combined Heat and Power Cost effective reduction from fossil fuel consumption in the commercial and industrial sector through the application of on-site power production to meet both heat and electricity loads.	Consistent The project includes on site photovoltaic cells..

Table IV.B-9 (Continued)
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Municipal Utility Electricity Sector Carbon Policy State agencies to address ways to transition investor-owned utilities away from carbon-intensive electricity sources.	Not applicable
Alternative Fuels: Non-Petroleum Fuels Increasing the use of non-petroleum fuels in California's transportation sector, as recommended as recommended in the CEC's 2003 and 2005 Integrated Energy Policy Reports.	Consistent Students and faculty of the proposed Project could purchase alternative fuel vehicles and utilize these fuels once they are commercially available in the region and local vicinity.
Business, Transportation and Housing	
Measures to Improve Transportation Energy Efficiency Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools and information that advance cleaner transportation and reduce climate change emissions.	Consistent The location of the Project promotes fuel conservation through pedestrian activity and nearby access to public transportation.
Smart Land Use and Intelligent Transportation Systems (ITS) Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. The Governor is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity and a quality environment. Smart land use, demand management, ITS, and value pricing are critical elements in this plan for improving mobility and transportation efficiency. Specific strategies include: promoting jobs/housing proximity and transit-oriented development; encouraging high density residential/commercial development along transit/rail corridor; valuing and congestion pricing; implementing	Consistent The Project locates new educational uses within walking distance of existing commercial and residential uses. The Project site is also located along a transit corridor with opportunities for the Project residents and students to use public transit rather than automobiles. The Project would provide services to resident, students, and employees located at and near the Project site, thereby improving the efficiency of goods movement.

Table IV.B-9 (Continued)
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
intelligent transportation systems, traveler information/traffic control, incident management; accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.	
Department of Food and Agriculture	
Conservation Tillage/Cover Crops Conservation tillage and cover crops practices are used to improve soil tilth and water use efficiency, and to reduce tillage requirements, labor, fuel, and fertilizer requirements.	Not applicable
Enteric Fermentation Cattle emit methane from digestion processes. Changes in diet could result in a reduction in emissions.	Not applicable
State and Consumer Services Agency	
Green Buildings Initiative Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels. The Executive Order and related action plan spell out specific actions state agencies are to take with state-owned and –leased buildings. The order and plan also discuss various strategies and incentives to encourage private building owners and operators to achieve the 20 percent target.	Consistent As discussed previously, the Project would be required to be constructed in compliance with the standards of Title 24 that are in effect at the time of development. The current 2005 Title 24 standards are approximately 8.5 percent more efficient than those of the 2001 standards.
Public Utilities Commission (PUC)	
Accelerated Renewable Portfolio Standard The Governor has set a goal of achieving 33 percent renewable in the State's resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33 percent goal.	Not applicable, but the Project would not preclude the implementation of this strategy by energy providers.
California Solar Initiative The solar initiative includes installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses, increased use of solar thermal systems to offset the increasing demand for natural gas, use of advanced metering in solar applications, and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	Consistent By generating electricity on site the proposed Project aids the Municipal Utilities in achieving efficiency program goals.

Table IV.B-9 (Continued)
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Investor-Owned Utility Programs These strategies include energy efficiency programs, combined heat and power initiative, and electricity sector carbon policy for investor owned utilities.	Not applicable
Sources: Climate Action Team, 2006 and Christopher A. Joseph & Associates, 2007.	

The GHG emissions generated by the Proposed Project have been calculated in metric tons per year and are shown in Table IV.B-10, Predicted Proposed Project Operational Greenhouse Gas Emissions. Also included in Table IV.B-10 is the California Energy Commission's estimated 2004 State-wide inventory, the latest year for which data are available. As shown in Table IV.B-10 the net increase in GHG emissions from vehicle, electrical, and natural gas usage is approximately 0.0013 percent of the 2004 emission level.

Emitting GHGs into the atmosphere is not itself an adverse environmental effect. Rather, it is the increased accumulation of GHGs in the atmosphere that may result in global climate change; the consequences of which may result in adverse environmental effects. However, it is not possible to predict the specific impact, if any, to global climate change from the relatively small incremental increase in emissions associated with one general development project. Therefore the Project-level climate impacts are considered ***less than significant***.

Table IV.B-10
Predicted Proposed Project Operational Greenhouse Gas Emissions

Emissions Source	CO_2e Emissions in Metric Tons per Year
Proposed Land Uses	
Proposed Project	
Natural Gas Consumption	132.31
Landscaping	0.51
Motor Vehicles	4,455.19
Subtotal	***4,588.01***
2004 Statewide Total[a]	364,000,000
Net Increase as a Percentage of 2004 Statewide Total	0.0013
[a] *Statewide totals were derived from the California Energy Commission:.* *Source: Christopher A. Joseph & Associates, 2008.*	

Impact IV.B-3 CO Hot Spots

The estimated net increase in daily CO emissions (Table B-8) is 298.25 pounds per day, which is less than the 550 per day threshold of significance. Therefore, impacts related to CO "hot spots" would be ***less than significant***.

Project Operation Emissions of TACs

Operation of the facility could produce emissions of various materials that can be harmful to human health at high concentrations. BAAQMD requires permits for facilities that emit pollutants into the air from stationary sources. BAAQMD Regulation 2, Rule 5 specifies that all permit applications for new and modified sources must be screened for TACs.[27] If any project emits a TAC in an amount that exceed a listed trigger, then BAAQMD staff must complete a site-specific Health Risk Screening Analysis.[28] Estimates of public exposure and off-site worker receptor locations are then compared to BAAQMD risk standards (Regulation 2-5-301 and 302). Under regulation 2-5-301, the Best Available Control Technology for Toxics (TBACT)[29] requirements, the applicant shall apply TBACT to any new or modified source of TACs where the cancer risk is greater than 1.0 in one million (10^{-6}),[30] and/or a chronic hazard index greater than 0.2.[31] Under regulation 2-5-302, an Authority to Construct or Permit to Operate for any new or modified source of TACs, the permit shall be denied if the Project risk exceeds any of the following risk limits: a cancer risk of 10.0 in one million (10^{-5}); a chronic hazard index of 1.0; and acute hazard index of 1.0.[32]

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[27] *A toxic air contaminant (TAC) is defined by BAAQMD as air pollutant that may cause or contribute to an increase in mortality or in serious illness or that may pose a present or potential hazard to human health (BAAQMD Website www.baaqmd.gov), reviewed online 23 February 2006.*

[28] *Health Risk Screening Analysis guidelines generally conform to the Health Risk Assessment Guidelines adopted by California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA for use in the Air Toxics Hot Spots Program (BAAQMD Website www.baaqmd.gov).*

[29] *Best Available Control Technology for Toxics (TBACT) requirements. The BAAQMD requires that an applicant shall apply TBACT to any new or modified source of TAC where the source risk is a cancer risk greater than 1.0 in one million (10-6) and/or a chronic hazard index greater than 0.20 (BAAQMD Website www.baaqmd.gov), reviewed online 23 February 2006.*

[30] *Cancer risk is an estimate of the probability that an individual will develop cancer as a result of lifetime exposure to emitted carcinogens at a given location. A one in one million cancer risk represents one additional lifetime cancer developed from the exposure condition evaluated among one million persons exposed.*

[31] *The hazard quotient is a measure of the non-carcinogenic toxicity of a compound (not a probability). The chronic hazard quotient is the ratio of the estimated does from exposure to compounds in air to a value, which is not believed to produce chronic adverse health effects. Adding all of these hazard quotients together results in the chronic hazard index.*

[32] *BAAQMD Website, www.baaqmd.gov, reviewed online 23 February 2006.*

A review of the specific chemicals potentially stored in the proposed facility was provided and compared with Table 2-5-1 from Rule 5 and even though several of the compounds stored at the facility are found on Table 2-5-1 it is unlikely that any will be stored in quantities that could violate the triggering thresholds of Table 2-5-1. If the Table 2-5-1 trigger thresholds are exceeded, the BAAQMD will require the facility to comply with the conditions of Regulation 2 Rule 5, thus insuring the safety of the general public and maintaining a healthy environment. Impacts related to TACs would be ***less than significant***.

Impact IV.B-4 Odors

The BAAQMD has listed sources of potential odors in the 1999 CEQA Guidelines and this type proposal is not listed, furthermore there is no reason to suspect that nuisance from odors is likely to be caused from the project. Impacts related to odors would be ***less than significant***.

Impact IV.B-5 Conflict with or Obstruct Implementation of an Applicable Air Quality Plan

The Project is consistent with the projections of employment and population forecasts identified by ABAG and are considered consistent with the Plans growth projections.

The construction, renovation, and site improvement projects proposed by the Project are do not result in a population increase in the surrounding area because the College generally draws its student population from local residents. Because the proposed Project is consistent with the Public Facility land use designation for the site, would not result in an increase in population and, therefore, would not exceed the Town of Los Altos Hills' population projections, impacts would be ***less than significant***.

CUMULATIVE IMPACTS

Criteria Pollutants

The exceedance of air quality standards is a region-wide problem with a multitude of stationary and mobile sources contributing to the problem. The Basin is currently in non-attainment for the state PM_{10} standard and the state and national ozone standards. The proposed project, in combination with pending development elsewhere in the Town of Los Altos Hills or Santa Clara County, would contribute to the cumulative degradation of regional air quality.

Based on predictions of future emission inventories, which include the effect of adopting further rules and regulations to limit air pollutant emissions, the BAAQMD is formulating plans and strategies necessary to meet the state one-hour and the national eight-hour ozone standards. However, the BAAQMD CEQA Guidelines state that any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. Therefore, cumulative impacts relative to regional air quality emissions would be ***less than significant***.

Cumulative GHG Emissions

As estimated above, the Project would result in the emissions of approximately 4,455 tons of CO_2 equivalents per year from on-site operations. The Project would not qualify as a major source of greenhouse gas emissions. In fact, under the new greenhouse gas mandatory reporting regulation now being developed by CARB, the Project would not be required to report its emissions, since they would be only about 32 percent of the lower reporting limit of 25,000 metric tons per year. Furthermore, the Project would account for only approximately 0.0013 percent of the state's emission reduction goal of 174 million tons by 2020. However, as previously discussed the impacts from any new greenhouse gas emissions on climate change are not known and therefore the cumulative impacts associated with the Project on climate change would be considered ***significant and unavoidable.***

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The proposed project would not exceed the regional thresholds for any of the criteria pollutants, and therefore the air quality impacts would be considered ***less than significant.*** The project would contribute cumulatively to Greenhouse gas emissions and would be considered ***significant and unavoidable***.

IV. ENVIRONMENTAL IMPACT ANALYSIS
C. BIOLOGICAL RESOURCES

INTRODUCTION

This section of the Draft EIR provides a description of the biological resources on the Project site, information on regulations relating to this issue, and an analysis of potential impacts related to biological resources resulting from implementation of the Foothill College Facilities Master Plan. The 2008 California Natural Diversity Data Base (CNDDB) and the California Native Plant Society (CNPS) on-line electronic Inventory of Rare and Endangered Plants of California were reviewed for both known and potential occurrences of special-status plants and animals in the Project area.

Sources of information for this report included California's Wildlife, Volumes I, II, and III,[1] California Natural Diversity Database,[2] Endangered and Threatened Wildlife and Plants,[3] Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants,[4] and CNPS's Inventory of Rare and Endangered Vascular Plants of California.[5] A reconnaissance site visit was conducted August 15, 2007 to assess the habitat onsite and to analyze any potential biological constraints that may affect the Project. A habitat assessment survey was conducted on December 5, 2007 to determine suitable habitat for the California red-legged frog (*Rana aurora draytonii*) and the California tiger salamander (*Ambystoma californiense*). Additional supporting information used to prepare this section was taken from the Foothill College Projects Draft Environmental Impact Report – March 2002.

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1 *Zeiner DC., Laudenslayer W.F,Mayer K.E, White M. Ed. 1988. California's wildlife, volume I, amphibians and reptiles. Department of Fish and Game. Sacramento, CA. 272 pp.*

Zeiner DC., Laudenslayer W.F,Mayer K.E, White M. Ed. 1988. California's wildlife, volume II, birds. Department of Fish and Game. Sacramento, CA. 731 pp.

Zeiner DC., Laudenslayer W.F,Mayer K.E, White M. Ed. 1988. California's wildlife, volume III, mammals. Department of Fish and Game. Sacramento, CA. 407 pp.

2 *California Department of Fish and Game. 2008. California natural diversity database. The Resources Agency, Sacramento, CA.*

3 *California Department of Fish and Game. 2008. California fish and game code. Gould Publications. Binghamton, N.Y.*

4 *California Department of Fish and Game. 2004. Annual report on the status of California state listed threatened and endangered animals and plants. The Resources Agency, Sacramento, CA. 204 pp.*

5 *California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-08b). California Native Plant Society. Sacramento, CA. Accessed on Mon, Jun. 16, 2008 from http://www.cnps.org/inventory.*

ENVIRONMENTAL SETTING

Physical Setting

Regional and Local Setting

Foothill College (the College) is located in the Town of Los Altos Hills in Santa Clara County, approximately thirty-five miles south of San Francisco and twenty miles north of downtown San Jose, on the San Francisco peninsula. The campus is immediately southwest of Interstate 280 (I-280), and is bounded by El Monte Road to the south, Crescent Lane and Elena Road to the west, and Josefa Lane to the northwest. Local access is currently provided from El Monte Road and regional access is provided from I-280. Adobe Creek runs through the southern portion of the Foothill College site and Purissima Creek traverses the site's northern boundary. The Project site is located within Section 31, of Township 6 south, Range 2 west, of the Mindego Hill California U.S. Geologic Survey (USGS) 7.5-minute topographic quadrangle map.

Existing Conditions

Much of the Project site within the College has been developed. As a result, natural habitat conditions have been altered and the Project site consists of buildings, paved areas, and landscaping with mostly non-native ornamental trees, shrubs, lawn, and other ground cover vegetation. Two general vegetation communities are present on the Foothill College site: upland/landscaping and mixed riparian. The landscaped areas included heavily managed lawns and recreational fields that are dominated by native and non-native ornamental trees and shrubs. The mixed riparian community runs along Adobe Creek and the Purissima Creek, and is dominated by willows and non-native invasive species.

Mixed Riparian

Adobe Creek is located within a flat area in the southern portion of the Project site and runs between the I-280 and El Monte Road (Figure IV.C-1). Adobe Creek is a perennial creek that originates west of the Project site in the Santa Cruz Mountains. From its origins, it heads in a northeastern direction. Within the Project site the Adobe Creek is channelized, and it continues to travel northeast until it exits the site under I-280 and eventually converges with the Charleston Slough before running into the San Francisco Bay.

The length of Adobe Creek on the Project site is approximately 0.6 miles and largely contains non-native forbs and grasses, although there are three areas of mature riparian habitat with some riparian scrub and emergent perennial wetland species lining and/or submerged within specific segments of the channel. The average bank-full width of Adobe Creek is approximately 20 feet. Small quantities of substrate consisting of small sized gravel and cobbles were found submerged within the Creek at the segments where water was present, while coarse sand to medium cobbles were abundant in the dry stretches of the Creek. It appeared that many of the larger cobbles observed in the creek occurred as a result of bank erosion rather than being transported by a substantial ephemeral flow.

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Environmental Planning and Research

NORTH

0 400 800 1,200 1,600
Feet

Figure IV.C-1
Drainages of Site Map

The Purissima Creek is located on the boundary in the northwesterly portion of the Project site (Figure IV.C-1), and traverses approximately 0.5 miles of the Project site. The low gradient of the drainage is such that any water present would likely seep into the groundwater table rather than flow through the drainage. It appears that Purissima Creek receives runoff from ephemeral drainages from the College's campus roads, parking lots, and the hills that surround the lower portion of the creek. The drainage becomes subterranean off-site thus inhibiting connectivity between Purisima Creek, the nearest ephemeral water, and any other of the ephemeral water features in the vicinity. No water was flowing during the December 2007 survey and the majority of the creek was dry even though precipitation had fallen in the 72 hours previous to the survey. The presence of outflow pipes along several reaches of the dry creek along with precipitation would be the major source of water for the drainage.

Both features contain riparian vegetation mixed with non-native ruderal species. The riparian habitat that runs along stretches of Adobe Creek is more mature than in the Purissima Creek and has more clearly defined strata, albeit marginal. Canopy layers of both Adobe and O'Keefe riparian habitats are dominated by coast live oak (*Quercus agrifolia*), willow (*Salix* sp.), and California bay (*Umbellularia californica*). The herbaceous layer was largely composed of curly dock (*Rumex crispus),* fireweed (*Epilobium brachycarpum*), sedge (*Carex* sp.), Himalayan blackberry (*Rubus discolor*), watercress (*Rorippa nasturtium* var. *aquaticum*), common cattail (*Typha latifolia*), and hog fennel (*Lomatium utriculatum*).

Upland/Landscaped

The upland area onsite is interspersed with landscaped areas as much of the Project site has been altered and is currently managed. The upland areas were largely dominated by non-native grass and forbs species. Grasses observed onsite included Italian ryegrass (*Lolium multiflorum*) and soft chess (*Bromus hordeaceus*). Forbs observed included black mustard (*Brassica nigra)*, curly dock*,* yellow star thistle (*Centaurea solstitialis),* field bindweed (*Convolvulus arvensis*), horseweed (*Conyza canadensis*), and goosefoot (*Chenopodium* sp.).

Special-Status Plants and Animals

Several species of plants and animals within the state of California have low populations, limited distributions, or the combination of the two. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. State and federal laws have provided the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS), with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as "candidates" for such listing. Still others have been designated as "species of special concern" by the CDFG. The CNPS has developed its own set of lists of native plants considered rare, threatened or endangered (2006). Collectively, these plants and animals are referred to as "special-status species."

A number of special-status plants and animals occur in the vicinity of the study area. These species, and their potential to occur in the study area, are listed in Table IV.C-1 and Table IV.C-2 on the following pages. Sources of information for this table included California's Wildlife, Volumes I, II, and III,[6] California Natural Diversity Database,[7] Endangered and Threatened Wildlife and Plants,[8] Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants,[9] and CNPS's Inventory of Rare and Endangered Vascular Plants of California.[10] A nine quadrangle search of the CNDDB and the CNPS on-line electronic Inventory of Rare and Endangered Plants of California was conducted. Quadrangles searched included Mendigo Hill, Castle Rock Ridge, Big Basin, La Honda, Woodside, Franklin Point, Cupertino, Mountain View, and Palo Alto (see Tables IV.C-1 and IV.C-2).

As shown in Table IV.C-1, there are a total of 16 special-status plants that have the potential to occur on the Project site based on the geographic location, and upon the surveyed habitats present on the site. Three of the species on the list are either restricted to or are often associated with serpentine grasslands; another two of the species are associated with wetland habitats; one species is associated with coastal habitat and the rest are dependent upon grasslands. Due to the disturbed nature, the degree of human activity, and the limited extent of natural habitat due to the landscaped nature of the site, it is unlikely that a viable population of any of the special-status plant species would be present. Neither of the special-status plant species that would be blooming during the August or December field surveys (Santa Cruz manzanita, Congdon's tarplant), were observed during the August or December 2007 field surveys and no occurrences of any of the other special-status plant species have been recorded on-site in the CNDDB database.

As shown in Table IV.C-2, there are a total of 23 special-status wildlife species that have been recorded in the CNDDB database in the Project vicinity that could potentially occur within the Project area as determined by the available habitat. Animals that are recorded as having a moderate to high potential to

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[6] *Zeiner DC., Laudenslayer W.F,Mayer K.E, White M. Ed. 1988. California's wildlife, volume I, amphibians and reptiles. Department of Fish and Game. Sacramento, CA. 272 pp.*

Zeiner DC., Laudenslayer W.F,Mayer K.E, White M. Ed. 1988. California's wildlife, volume II, birds. Department of Fish and Game. Sacramento, CA. 731 pp.

Zeiner DC., Laudenslayer W.F,Mayer K.E, White M. Ed. 1988. California's wildlife, volume III, mammals. Department of Fish and Game. Sacramento, CA. 407 pp.

[7] *California Department of Fish and Game. 2008. California natural diversity database. The Resources Agency, Sacramento, CA.*

[8] *California Department of Fish and Game. 2008. California fish and game code. Gould Publications. Binghamton, N.Y.*

[9] *California Department of Fish and Game. 2004. Annual report on the status of California state listed threatened and endangered animals and plants. The Resources Agency, Sacramento, CA. 204 pp.*

[10] *California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-08b). California Native Plant Society. Sacramento, CA. Accessed on Mon, Jun. 16, 2008 from http://www.cnps.org/inventory.*

Table IV.C-1
Potentially-Occurring Special-Status Plant Species

Scientific Name	Common Name	Status			Habitat Requirement	Potential to Occur on Project site
		FED	STATE	CNPS		
Acanthomintha duttonii	San Mateo Thorn Mint	FE		1B.1	Restricted to serpentine soils of chaparral and valley and foothill grasslands in San Mateo County. The species occupies slopes and flats with deep, heavy-clay soil inclusions. Species is an aromatic annual herb and flowers from April-July.	***No Potential*.** No suitable habitat exists on-site, i.e., no serpentine soils are present on the Project site.
Agrostis blasdalei	Blasdale's Bent Grass			1B.2	Coastal Strand, Coastal Prairie, Northern Coastal Scrub	***No Potential*.** No suitable habitat exists on-site, i.e., no scrub habitat is present on the Project site.
Allium peninslare var. franciscanum	Franciscan Onion			1B.2	Cismontane woodland, valley and foothill grassland, clay or often serpentine soils. Species is a perennial herb and flowers from May-June.	***No Potential*.** No suitable habitat for this species exists on the Project site, i.e., no serpentine soils are present on the Project site.
Arcostaphylos andersnii	Santa Cruz Manzanita			1B.2	Broadleaved upland forest, chaparral. Species is an evergreen shrub and flowers from November-April.	***No Potential*.** No suitable habitat for this species exists on the Project site.
Arctostaphylos glutinosa	Schreiber's Manzanita		CT	1B.2	Shrub found in chaparral, often found in coast redwood forests. Flowers from January to February.	***No Potential*.** No suitable habitat for this species exists on the Project site.
Arctostaphylos Regismontana	Kings Mountain Manzanita			1B.2	Shrub found in chaparral, mixed evergreen forest, north coastal coniferous forest	***No Potential*.** No suitable habitat exists on site for this species.

Table IV.C-1 (Continued)
Potentially-Occurring Special-Status Plant Species

Scientific Name	Common Name	Status			Habitat Requirement	Potential to Occur on Project site
		FED	STATE	CNPS		
Arctostaphylos silvicola	Bonny Doo Manzanita			1B.2	Marine sand deposits. Chaparral, closed-cone coniferous forest, lower montane coniferous forest. Elevation: 120 - 600 meters.	***No Potential*.** No suitable habitat exists on site for this species.
Astragalus pycnostachyus var. pycnostachyus	Coastal Marsh Milk Vetch	FE		1B.2	Well-drained soils of open sites in coastal habitats, often on bluffs or flats near bodies of brackish water or with a relatively high water table, in association with dune or coastal shrub land vegetation.	***No Potential*.** No suitable habitat exists on site for this species, i.e., no dune or coastal shrub land vegetation
Astragalus tener var *tener*	Alkali Milk Vetch			1B.	Playas, valley and foothill grassland (adobe clay), vernal pools (alkaline). Species is an annual herb and flowers from March-June	***No Potential*.** No suitable habitat exists on site for this species, i.e., no alkaline or adobe clay soils.
Centromadia parryi ssp. *Congdonii*	Congdon's Tarplant		CSC	1B	Valley and foothill grassland (alkaline). This species is an annual herb June-November	***No Potential*.** No suitable habitat exists on site for this species.
Collinsia multicolor	San Francisco Collinsia			1B	Closed-cone coniferous forest, coastal scrub. This species is an annual herb and flowers from March-May.	***No Potential*.** No suitable habitat exists on site for this species.

Table IV.C-1 (Continued)
Potentially-Occurring Special-Status Plant Species

Scientific Name	Common Name	Status			Habitat Requirement	Potential to Occur on Project site
		FED	STATE	CNPS		
Chorizanthe pungens var. *hartwegiana*	Ben Lomond Spineflower	FE	CE	1B.1	Sandy zayante soils, bounded by the communities of Ben Lomond, Glenwood, Scotts Valley, and Felton. Outlying populations are located near Bonny Doon, Boulder Creek, Big Basin State Park, and Gray Whale Ranch State Park. Shade intolerant and flowers from April-May.	***No Potential*.** Habitat for this species is restricted to specific soil types. None of the appropriate soil types occur on the Project site.
Cirsium fontinale var. *fontinale*	Fountain Thistle	FE	CE	1B.1	Perennial herb found within chaparral and valley grassland seeps and openings.	***No Potential*.** Habitat for this species is absent from the Project site.
Dirca occidentalis	Western Leatherwood			1B.2	Broadleaved upland forest, closed cone coniferous forest, chaparral, cismontane, woodland, North Coast coniferous forest, riparian scrub, riparian woodland (mesic). Species is a deciduous shrub and flowers from January-April	***Low Potential*.** Although suitable habitat exists on site for this species, it is marginal. Due to the disturbed nature of the site, and the lack of current recorded observations of the species it is determined that it has a low to no potential of occurring on the site.
Fritillaria liliacea	Fragrant Fritillary	FSC		1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland (often serpentine). This species is a perennial herb and flowers from February-April	***Low Potential*.** Habitat for this species exists on site but the highly disturbed nature, No suitable habitat exists on site for this species.

Table IV.C-1 (Continued)
Potentially-Occurring Special-Status Plant Species

Scientific Name	Common Name	Status FED	Status STATE	Status CNPS	Habitat Requirement	Potential to Occur on Project site
Tropidocarpum capparideum	Caper Fruited Tropidocarpum	FSC		1B.1	Valley and foothill grasslands (alkaline hills). This species is an annual herb and flowers from March-April	***No Potential*.** No suitable habitat exists on site for this species as no alkaline soils are present.

Federal; Endangered Species Act of 1973 (as amended)
Endangered = Any species, including subspecies, in danger of extinction through all or a significant portion of its range.
Threatened = Any species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
Species of Concern =

State; California Endangered Species Act of 1984 (as amended)
Endangered = Any native species who's survival and reproduction are in immediate jeopardy from one or more causes.
Threatened = Any native species, although not presently threatened with extinction, is likely to become an endangered species within the foreseeable future in the absence of special protection and management efforts of the state.
Rare = Any native species, although not presently threatened with extinction, is in such small numbers throughout its range that it may become endangered if its present environment worsens.

CNPS (California Native Plant Society); Inventory of Rare and Endangered Plants of California, Special Publication No. 1/ Sixth Edition / August 2001.
1B = List 1B – Plants rare, threatened, or endangered in California and elsewhere.
2= List 2 – Plants rare, threatened, or endangered in California, but more common elsewhere
3 = List 3 – Plants about which more information is needed, a review list.
4 = List 4 – Plants of limited distribution – a watch list.
(.1 = seriously endangered in CA, .2 = fairly endangered in CA, .3 = not very endangered in CA)

Potential Occurrence on Site:
No Potential = Plant communities, soils, or elevations that this is typically associated with this plant do not occur within the Planning Area.
Low Potential = Typical plant communities/habitat types associated with this plant are of marginal quality, very limited extent, within the Planning Area.
Moderate Potential = Typical plant communities or habitat types this plant is associated with are common on the site but of marginal quality within the Planning Area.
High Potential = Typical plant communities or habitat types this plant is associated with are common within the Planning Area and of high quality and good health.

Table IV.C-2
Potentially-Occurring Special-Status Wildlife Species

Scientific Name	Common Name	Status	Habitat Affinities	Potential of Occurrence and Reported Localities in Planning Area
Invertebrates				
Euphydryas editha bayensis	Bay Checkerspot Butterfly	FT	This species is restricted to serpentine derived soils at all stages of its life history. The host plants are very specific to the life history of this species, (i.e., *Plantago erecta, Castilleja exserta* spp. *exserta*)	***No Potential.*** No serpentine derived soils are present on the site. In addition, none of the specific host plants were present on the site. No suitable habitat exists on site for this species.
Trimerotropis infantilis	Zayante Band-Windged Grasshopper	FE	Open sandy area with sparse, low annual and perennial herbs on high ridges with sparse ponderosa pine.	***No Potential.*** This species occupies a specific niche in Zayante sandy soils habitat that is absent from the site.
Fish				
Oncorhynchus mykiss irideus	Steelhead-Central California ESU	FE, CE	Species requires streams with deep low-velocity pools for resting and rearing, clean spawning gravels, and high dissolved oxygen concentrations. It is only found in coastal and SF Bay Area streams where urbanization has not destroyed important spawning, rearing , and migration habitat.	***No Potential.*** No suitable habitat exists onsite to support this species. The Adobe creek is not sufficiently deep to support the various life history stages of this species.
Onchorhynchus kisutch	Coho Salmon - Central California Coast ESU	FT, CE	Occurs from Punta Gorda, in northern California, to the San Lorenzo River, in Santa Cruz County, and includes coho salmon populations from several tributaries of San Francisco Bay (e.g., Corte Madera and Mill Valley Creek).	***No Potential.*** No suitable habitat exists for this species onsite.

Table IV.C-2 (Continued)
Potentially-Occurring Special-Status Wildlife Species

Scientific Name	Common Name	Status	Habitat Affinities	Potential of Occurrence and Reported Localities in Planning Area
Amphibians				
Ambystoma californiense	California Tiger Salamander	FT, CSC	Found primarily in annual grass lands but, requires vernal pools, ephemeral ponds for breeding and rodent burrows for refuge and aestivation habitat.	***Low Potential.*** Riparian ponds (i.e., the stream pools) in which this species breeds and rodent burrows necessary for aestivation are present on the site, albeit of low quality. The stream ponds may not pool for the necessary length of time for successful breeding (longer than four months). Habitat assessment surveys were conducted onsite and the habitat was deemed too degraded to support a viable population of this species.
Rana aurora draytonii	California Red-legged Frog	FT, CSC	Range occurs from northern Sonoma County to British Columbia. Inhabit perennial and ephemeral streams with quiet waters and dense emergent vegetation.	***Low Potential.*** Suitable habitat for this species is present on site but is highly disturbed and of poor quality. A Habitat Assessment Survey concluded that it could not be ruled out, it had low potential to occur and that this species would be likely not be present on the site.
Reptiles				
Actinemys marmorata	Western Pond Turtle	SC, CSC	Prefers permanent, slow-moving creeks, streams, ponds, rivers, marshes and irrigation ditches with basking sites and a vegetated shoreline. Requires upland sites for egg laying.	***Low Potential.*** Although this species was found in Foss Creek Grant Road (CNDDB 2007), riparian ponds (i.e., the stream pools) in which this species breeds and rodent burrows necessary for aestivation are of poor quality on the site. The stream ponds may not pool for the necessary length of time for successful breeding (longer than four months). Habitat assessment surveys were conducted onsite and the habitat was deemed too degraded to likely support a viable population of this

Table IV.C-2 (Continued)
Potentially-Occurring Special-Status Wildlife Species

Scientific Name	Common Name	Status	Habitat Affinities	Potential of Occurrence and Reported Localities in Planning Area
				species.
Thamnophis sirtalis tetrataenia	San Francisco Garter Snake	FT, CT	This species is reclusive and lives in wetlands or grasslands near ponds, marshes, and soughs, where they are likely to retreat into water when disturbed. Usually found around ponds and marshes that support large frog populations.	***Low potential.*** Due to the secretive nature of this species and the specific habitat requirements that are absent from the site, or are present but in a degraded condition, this species would not be expected to occur.
Birds				
Asio otus	Long Eared Owl	CSC	Species inhabits open woodlands, forest edges, riparian strips along rivers, hedgerows, juniper thickets, woodlots, and wooded ravines and gullies. Breeding habitat must include thickly wooded areas for nesting and roosting with nearby open spaces for hunting. During winter, they need dense conifer groves or brushy thickets to roost in. Roosting sites are usually in the heaviest forest cover available.	***Low Potential.*** This species would at most forage over the study area from the surrounding area. Breeding habitat is present but the proximity to human activity, I-280, and abundance of suitable habitat within 5 miles of the site mean its unlikely to inhabit the site.
Athene cunicularia	Burrowing Owl	CSC	Found in open, dry grasslands, deserts and ruderal areas. Requires suitable burrows.	***No potential.*** Marginal suitable habitat exists onsite No direct or indirect observations were observed during December 2007 field survey.
Brachyramphus marmoratus	Marbled Murrelet	FT, CE	The general habitat is near coastal waters, tide-rips, bays, and mountains. Nest sites are large, moss covered, horizontal branches with an average height of 45 meters. The sites are often a substantial distance from the coast	***No potential.*** No suitable habitat exists onsite to support the specific nesting requirements for this species.
Charadrius alexandrinus nivosus	Western Snowy Plover	FT, CSC	Sandy beaches, salt pond levees & shores of large alkali lakes, needs sandy, gravelly, or	***No potential.*** No suitable habitats exists onsite to support the nesting requirements

Table IV.C-2 (Continued)
Potentially-Occurring Special-Status Wildlife Species

Scientific Name	Common Name	Status	Habitat Affinities	Potential of Occurrence and Reported Localities in Planning Area
			friable soils for nesting	of this species.
Circus cyaneus	Northern Harrier	CSC	This species inhabits open grasslands, meadows and emergent wetlands, where it nests on the ground in shrubby vegetation.	***Low Potential.*** Individuals may occasionally pass over the site, or even forage on the site. However, the preferred breeding habitat is of marginal quality on site and due to the amount of daily human activity it is unlikely this species would be breeding on the site.
Dendroica petechia	Yellow Warbler	CSC	Riparian woodland with open to medium-density canopy of willows or cottonwoods	***Low Potential.*** Although suitable habitat for this species exists on site, it is degraded and marginal. It is possible this species could be present, but it is unlikely in view of the abundance of suitable higher quality habitat in the surrounding areas of the site.
Elanus leucurus	White-tailed Kite	CFP	This species occupies open vegetation and uses dense woodland for cover. Nesting occurs in riparian woodlands where it uses oak trees and sycamore trees for nest sites	***Low Potential.*** Individuals may occasionally pass over the site, or even forage on the site. However, the preferred breeding habitat is of marginal quality on site and due to the amount of daily human activity it is unlikely this species would be breeding on the site.
Falco peregrinus	Peregrine Falcon	CE	Individuals breed on cliffs in the Sierra or in coastal habitats; occurs in many habitats of the state during migration and winter.	***No potential.*** This species would at most forage over the study area during migration. Breeding habitat is absent.
Falco columbarius	Merlin	CSC	This falcon, which breeds in Canada, winters in a variety of Californian habitats including grasslands, savannahs, wetlands, etc	***Low Potential.*** Wintering individuals may occasionally pass over the site, or even forage on the site. However, breeding habitat is absent.

Table IV.C-2 (Continued)
Potentially-Occurring Special-Status Wildlife Species

Scientific Name	Common Name	Status	Habitat Affinities	Potential of Occurrence and Reported Localities in Planning Area
Lanius ludovicianus	Loggerhead Shrike	CSC	This species occurs in grasslands with scattered shrubs, trees, fences or other perches. Nesting habitat includes coastal scrub lands.	***Low Potential.*** Although suitable habitat for this species exists on site, it is degraded and marginal. It is possible this species could be present, but it is unlikely in view of the abundance of suitable higher quality habitat in the surrounding areas of the site.
Mammals				
Antrozous palldus	Pallid Bat	CSC	This species typically inhabits arid habitats including grasslands, shrub lands, woodlands, and forests. It prefers rocky outcrops, cliff, and crevices with access to open habitats for foraging.	***No Potential.*** Suitable habitat for this species is absent from the Project site.
Corynorhinus townsendii townsendii	Townsend's Western Bat	CSC	This species is most abundant in mesic habitats, It is commonly known to roost in caves, tunnels, mines and buildings.	***Low Potential***. Although suitable, marginal habitat exists on the site for this species, no documented occurrences have been recorded in proximity to the site and it is not expected to occur.
Eumops perotis californicus	California Mastiff Bat	CSC	This species primarily inhabits arid lowlands and uses tunnels, trees and crevices to roost.	***Low Potential.*** Suitable habitat for this species is absent from the Project site.
Lasiurus cinereus	Hoary Bat	SC	This species prefers trees at the edge of clearings, but have been found in trees in heavy forests, open wooded glades, and shade trees along urban streets and in city parks	***Low Potential.*** Potential habitat is present on the site for this species, albeit marginal. It is likely this species forages over the site.

USFWS Designations:
FE = listed as Endangered
FT = listed as Threatened
FPE = proposed as Endangered
FPT = proposed as Threatened
FSS = federal sensitive species, as listed by BLM and USFS
SC[1] = Species of Concern
MB = Migratory non-game protected under the Migratory Bird Treaty Act.

Table IV.C-2 (Continued)
Potentially-Occurring Special-Status Wildlife Species

Scientific Name	Common Name	Status	Habitat Affinities	Potential of Occurrence and Reported Localities in Planning Area
CDFG Designations: *CE = Listed as Endangered* *CR = Listed as Rare* *CT = Listed as Threatened* *CPE = Proposed for listing as Endangered* *CSC = California Special Concern Species* * = Taxa restricted in distribution, declining throughout their range, or associated with declining habitats in California.* *CFP =Fully protected under the Cal. Fish and Game Code.* ***Potential Occurrence on Site:*** *Present = Reported or observed.* *Possible = Suitable habitat present, although no individuals observed or reported.* *Unlikely = Suitable habitat either marginal or absent, and likelihood of occurrence on the site is low to nonexistent.* *Absent = Absent due to lack of habitat and natural resources* *Source: CNDDB database search of the Mindego Hill, Castle Rock Ridge, Big Basin, La Honda, Woodside, Franklin Point, Cupertino, Mountain View and Palo Alto USGS Quadrangles, February 2008.*				

occur within the Project site are based on the presence of potential habitat. Due to the disturbed nature of the Project site, the site's value to most wildlife species would be considered quite low.

There are a number (>25) of rodent burrows and a healthy insect population, which is evidence that a suitable prey base is present to support a viable food chain. The rodent burrows present in the northeast portion of the Project site would constitute suitable burrowing owl habitat, although the distance of the burrows from running water would preclude their suitability as aestivation habitat for any special-status amphibian species. The only special-status amphibian species that could potentially occur within the Project area as determined by the available habitat is the California Red-legged frog (*Rana aurora draytonii*). It would be unlikely that this species would occur onsite as the suitable habitat along Purissima Creek is absent and along Adobe Creek is marginal in addition lack of connectivity to any of the ephemeral waters in the vicinity of the site. The riparian and landscaped habitat of the Project site provides marginal cover (roosting/nesting habitat) and abundant foraging habitat for local sensitive species. These include the possible occurrence of the white-tailed kite (*Elanus leucurus*), the northern harrier (*Circus cyaneus),* loggerhead shrike (*Lanius ludovicianus*), yellow warbler (*Dendorica petechia*), merlin (*Alco columbarius*), Townsend's big-eared bat (*Corynorhinus townsendii townsendii*), long eared owl (*Asio otus),* and the burrowing owl (*Athene cunicularia).* Many of these species may forage over the site from time to time, but it is unlikely they would breed, as high quality suitable nesting/roosting habitat does not exist on site.

The only reptile species that could potentially be present on the site as determined by available habitat would be the western pond turtle (*Actinemys marmorata*). Although the western pond turtle was recorded in the CNDDB as being present in Foss Creek Grant Road (i.e., present within the nine USGS quadrangle search), riparian ponds (i.e., the stream pools) in which this species breeds and rodent burrows necessary for aestivation, are of poor quality on the site. Although stream ponds are present they may not pool for the necessary length of time for successful breeding (longer than four months). Habitat assessment surveys were conducted onsite and the habitat was deemed too degraded to likely support a viable population of this species.

Regulatory Setting

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under the FESA. The FESA has four major components: provisions for listing species, requirements for consultation with the USFWS and the National Marine Fisheries Service (NOAA Fisheries), prohibitions against "taking" of listed species, and provisions for permits that allow incidental "take." The FESA also discusses recovery plans and the designation of critical habitat for listed species. Both the USFWS and the NOAA Fisheries

share the responsibility for administration of the FESA. During the CEQA review process, each agency is given the opportunity to comment on the potential of the Project to affect listed plants and animals.

Clean Water Act Section 404 & 401

The Corps and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344). Waters of the United States are defined in Title 33 CFR Part 328.3(a) and include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The lateral limits of jurisdiction in those waters may be divided into three categories – territorial seas, tidal waters, and non-tidal waters – and is determined depending on which type of waters is present (Title 33 CFR Part 328.4(a), (b), (c)). Activities in waters of the United States regulated under Section 404 include fill for development, water resource projects (such as dams and levees), infrastructure developments (such as highways and airports) and mining projects. Section 404 of the CWA requires a federal license or permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities).

Section 401 of the Clean Water Act (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification from the state in which the discharge originates or would originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the affected waters at the point where the discharge originates or would originate, that the discharge will comply with the applicable effluent limitations and water quality standards. A certification obtained for the construction of any facility must also pertain to the subsequent operation of the facility. The responsibility for the protection of water quality in California rests with the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs).

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 U.S.C. Sections 661-667e, March 10, 1994, as amended 1946, 1958, 1978, and 1995) requires that whenever waters or channel of a stream or other body of water are proposed or authorized to be modified by a public or private agency under a federal license or permit, the federal agency must first consult with the USFWS and/or NOAA Fisheries and with the head of the agency exercising administration over the wildlife resources of the state where construction will occur (in this case the California Department of Fish and Game (CDFG)), with a view to conservation of birds, fish, mammals and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent.

The Migratory Bird Treaty Act & Bald and Golden Eagle Protection Act

The Federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.), Title 50 Code of Federal Regulations (CFR) Part 10, prohibits taking, killing, possessing, transporting, and importing of migratory

birds, parts of migratory birds, and their eggs and nests, except when specifically authorized by the Department of the Interior. As used in the act, the term "take" is defined as meaning, "to pursue, hunt, capture, collect, kill or attempt to pursue, hunt, shoot, capture, collect or kill, unless the context otherwise requires." With a few exceptions, most birds are considered migratory under the MBTA. Disturbances that causes nest abandonment and/or loss of reproductive effort or loss of habitat upon which these birds depend would be in violation of the MBTA.

The Bald Eagle Protection Act (16 U.S.C. 668) was passed in 1940 to protect bald eagles and was later amended to include golden eagles. Under the act it is unlawful to import, export, take, sell, purchase, or barter any bald eagle or golden eagle, their parts, products, nests, or eggs. Take includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing eagles.

State

California Endangered Species Act

The State of California enacted similar laws to the FESA, the California Native Plant Protection Act (NPPA) in 1977 and the California Endangered Species Act (CESA) in 1984. The CESA expanded upon the original NPPA and enhanced legal protection for plants, but the NPPA remains part of the California Fish and Game Code. To align with the FESA, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the CESA as threatened species, but did not do so for rare plants. Thus, these laws provide the legal framework for protection of California-listed rare, threatened, and endangered plant and animal species. The CDFG implements NPPA and CESA, and its Wildlife and Habitat Data Analysis Branch maintains the CNDDB, a computerized inventory of information on the general location and status of California's rarest plants, animals, and natural communities. During the CEQA review process, the CDFG is given the opportunity to comment on the potential of the Project to affect listed plants and animals.

Fully Protected California Species & California Species of Special Concern

The classification of "fully protected" was the CDFG's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibian and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (fish at §5515, amphibian and reptiles at §5050, birds at §3511, and mammals at §4700) dealing with "fully protected" species states that these species "…may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species," although take may be authorized for necessary scientific research. This language makes the "fully protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with fully protected species were amended to allow the CDFG to authorize take resulting from recovery activities for state-listed species.

Species of special concern are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFG because are declining at a rate that could result in listing or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFG, land managers, consulting biologist, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under the CEQA during Project review.

California Fish and Game Code Sections 3503 & 3513

According to Section 3503 of the California Fish and Game Code it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except English sparrows (*Passer domesticus*) and European starlings (*Sturnus vulgaris*). Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 essentially overlaps with the MTBA, prohibiting the take or possession of any migratory non-game bird. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFG.

California Native Plant Society

CNPS publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California in both hard copy and electronic version.[11] The Inventory assigns plants to the following categories:

- 1A – Presumed extinct in California
- 1B – Rare, threatened, or endangered in California and elsewhere
- 2 – Rare, threatened, or endangered in California, but more common elsewhere
- 3 – Plants for which more information is needed
- 4 – Plants of limited distribution

Additional endangerment codes are assigned to each taxa as follows:

- 1 – Seriously endangered in California (over 80 percent of occurrences threatened/high degree of immediacy of threat).
- 2 – Fairly endangered in California (20-80 percent occurrences threatened).
- 3 – Not very endangered in California (<20 percent of occurrences threatened or no current threats known).

[11] *California Native Plant Society, Inventory of Rare and Endangered Plants (online edition, v7-06d), http://cnps.org/inventory, November 6, 2007.*

Plants on Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that may qualify for listing, and are given special consideration under CEQA during project review. Although plants on List 3 and 4 have little or no protection under CEQA, they are usually included in the project review for completeness.

Porter-Cologne Water Quality Control Act

Waters of the State are defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The RWQCB protects all waters in its regulatory scope, but has special responsibility for isolated wetlands and headwaters. These waterbodies have high resource value, are vulnerable to filling, and may not be regulated by other programs, such as Section 404 of the CWA. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program, which regulates discharges of dredged and fill material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, but does involve activities that may result in a discharge of harmful substances to waters of the State, the RWQCB has the option to regulate such activities under its State authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements.

California Fish and Game Code Section 1600

Streams, lakes, and riparian vegetation as habitat for fish and other wildlife species, are subject to jurisdiction by the CDFG under Sections 1600-1616 of the California Fish and Game Code. Any activity that will do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake; generally require a 1602 Lake and Streambed Alteration Agreement. The term "stream," which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.[12] Riparian is defined as, "on, or pertaining to, the banks of a stream;" therefore, riparian vegetation is defined as, "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream

[12] *California Department of Fish and Game, Environmental Services Division, A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code, 1994.*

itself."[13] Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from the CDFG.

Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by federal, state, and local conservation plans, policies or regulations. The CDFG ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in its CNDDB. Sensitive vegetation communities are also identified by CDFG on its List of California Natural Communities Recognized by the CNDDB. Impacts to sensitive natural communities and habitats identified in local or regional plans, policies, regulations, or by federal or state agencies must be considered and evaluated under the CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix X).

Regional/Local

Town of Los Altos Hills Tree Protection Regulations

The Town of Los Altos Hills Municipal Code, Section 12-2-112 regulates the preservation of heritage oaks. A heritage oak is defined as any tree of the genus *Quercus* that has a trunk or multiple trunk thirty-six (36) inches or greater in circumference. The Town of Los Altos Hills requires that a permit be obtained prior to the removal of, or damage to, any heritage oak. The Town of Los Altos Hills however, does not have jurisdictional authority over the Foothill College Campus, as the Campus District is under the jurisdiction of the State of California.

Town of Los Altos Hills General Plan

The *Town of Los Altos Hills General Plan* contains several general policies pertinent to protecting biological resources. Specifically, there is an emphasis on protecting areas rich in wildlife or, of a fragile ecological nature (e.g., areas of special-status plants and wildlife, riparian areas, etc). The T*own of Los Altos Hills General Plan* does not have jurisdictional authority over the Foothill Campus site, as the College District is under the jurisdiction of the State of California.

County of Santa Clara Tree Ordinance

The County of Santa Clara Tree Preservation and Removal Ordinance (County Code Section C16.1 to Section C17.17) serves to protect all trees having a trunk that measures 37.7 inches or more in circumference (12 inches in diameter) at the height of 4.5 feet above the ground or immediately below the lowest branch, whichever is lower, or in the case of multi trunk trees a trunk size of 75.4 inches in circumference or more (24 inches or more in diameter). These tree protection measures apply to certain

[13] *Ibid.*

areas, specifically design review zones and Hillside parcels of less than three acres. In addition, any tree that because of its history, girth, height, or species or other unique quality, is considered significant to the community or recommended by the historic commission can be designated as heritage tree and, therefore, deemed protected and preserved.

Although permits are not required for tree removal necessary to carry out building site approval or other land use applications already approved by the County, the number of trees removed must, however, be established as the minimum number necessary to carry out the building or grading action. In addition, the approved plans must be available for inspection by County staff if requested. The County does not have jurisdictional authority over the Foothill Campus site, as the College District is under the Jurisdiction of the State of California.

ENVIRONMENTAL IMPACTS

Methodology

Direct impacts of the proposed Project on biological resources can take several forms, but typically involve the loss, modification, or disturbance of natural habitat (i.e., vegetation communities or other naturally occurring areas) which in turn, directly affects plant and wildlife species dependent upon that particular resource. To determine areas of expected impact on biological resources, the proposed activities were evaluated and overlain on an aerial photograph of the Project site. The level of significance of potential impacts on habitat area is determined by an evaluation of the overall biological value of a habitat area with respect to significance threshold criteria (described below). The relative value of each of the vegetation communities present on the site is measured by such factors as disturbance history, biological diversity, its importance to particular plant and wildlife species, it's uniqueness or sensitivity status, the surrounding environment, and the presence of special-status resources. The significance of impacts with respect to direct impacts on individuals or populations of plant and animal species takes into consideration the number of individual plants or animals potentially affected, how common or uncommon they species is both n the Project site and from a regional perspective, and the sensitivity if the species is considered a species of special concern by resource agencies. These factors are evaluated based on the results of on-site biological surveys and studies, results of literature and database reviews, discussions with biological experts, and established and recognized ecological and biodiversity theory and assumptions. Surveys and research conducted for the Project are satisfactory to determine potential impacts of the Project and to meet standards specified by the CEQA.

Thresholds of Significance

In accordance with Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant impact related to biological resources if it would:

(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS;

(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFG or USFWS;

(c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

(d) Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

(e) Conflict with any local polices or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

(f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

As discussed in the Initial Study that was prepared for the Notice of Preparation (see Appendix A to this Draft EIR), there would be no impact with respect to the Threshold (e) because the College is within the California Community College System and, therefore, local tree ordinances do not apply to the Project site. There would be no impact with respect to the Threshold (f) because the Project site is not a part of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or State habitat conservation plan. Accordingly, the following discussion focuses on Thresholds (a), (b), (c) and (d).

Additionally, the District is guided by State CEQA Guidelines Section 15065, which directs lead agencies to find that a project may have a significant effect on the environment if it has the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

Impact IV.C-1: The proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS.

Of the 16 plant species that would potentially occur on the Project site (as determined by available habitat), only one species (*Dirca occidentalis)* has a low potential to occur on the site, the rest have no potential due to lack of habitat or soil type. The observation of *Dirca occidentalis* recorded in the CNDDB Rarefind as within the Project site vicinity are not historically current and were documented in 1961, 1969, 1971, 1979. No recent observations have been recorded since that time, and no records indicate any specimens being observed on the Project site. Furthermore, this species would have been blooming at the time of the December 2007 field survey, and was not identified as being on the Project site by the Project biologist. Since this species would only potentially occur in the riparian areas of the Project site, which are marginal, and the creeks will not be impacted during the construction of the

Project, there will be no impacts to this species, even if it were to be present. Though, with the implementation of Mitigation Measures IV.C-1a through IV.C-1d, requiring avoidance of ground disturbing activities during breeding season or pre-construction surveys and nest avoidance during the nesting season, this potential impact will be reduced to ***less than significant*** There are a total of 23 special-status wildlife species that have been recorded in the CNDDB database in the Project vicinity that could potentially occur within the Project area as determined by the available habitat. Animals that are recorded as having a moderate to high potential to occur within the Project site are based on the presence of potential habitat. Due to the disturbed nature of the Project site, the site's value to most wildlife species would be considered quite low.

Two special-status fish species that are known to occur within the segment of Adobe Creek that runs offsite but through Palo Alto to the east, are coho salmon and the steelhead salmon, both of these species are California listed species. Adobe Creek provides some suitable habitat, albeit marginal, for these species, but the lack of connectivity to other ephemeral waters in the vicinity, the lack of current records of these species within the Project area, and the moderate to high levels of development throughout the reach of Adobe Creek onsite likely preclude its presence. Since this species would only potentially occur in Adobe Creek, whose habitat is marginal, and this Creek will not be impacted during the construction of the Project, there will be less-than-significant impacts to this species, even if it were to be present. Implementation of Mitigation Measure IV.C-1a through IV.C-1d requiring avoidance of ground disturbing activities during breeding season or pre-construction surveys and nest avoidance during the nesting season would ensure this impact remains ***less than significant.***

Of the native amphibians known to occur within the watershed only the California red-legged frog is associated with the Adobe Creek. California tiger salamanders are found in seasonal wetlands located within the overall watershed of the Project site, but are not typically associated with its creeks, specifically Adobe Creek. The California red-legged frog is chiefly a pond frog that can be found in quiet permanent waters of ponds, pools, streams, springs, marshes and lakes. Moist woodlands, forest clearings and grasslands also provide suitable habitat in the non-breeding season.[14] The Adobe creek lacks water with dense vegetation that could provide good cover, although they can be found in unvegetated waters as well. There are no current records of California red-legged frogs occurring within the Project Area and the species is believed to be extinct from the lower reaches of the Adobe Creek. Implementation of Mitigation Measure IV.C-1a through IV.C-1d requiring avoidance of ground disturbing activities during breeding season or pre-construction surveys and nest avoidance during the nesting season would ensure this impact remains ***less than-significant.***

Two reptile species have low to no potential to occur on the Project site, the western pond turtle and the San Francisco garter snake. The western pond turtle are most commonly found in areas with large rocks and boulders where they are able to bask. Adobe Creek does not possess suitable basking habitat, which

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[14] *Stebbins, R.C 1985 A Field Guide of the Western Retiles and Amphibians 3rd Ed. Houghton Mifflin Co., Boston, Massachusetts, USA*

would reduce the likelihood of this species occurring in the Creek. Previous development and associated flood control projects have encroached upon the watershed and the creek up and down stream of the Project site. There is little to no potential for either of these reptile species to occur within the Project site. Implementation of Mitigation Measure IV.C-1a through IV.C-1d requiring avoidance of ground disturbing activities during breeding season or pre-construction surveys and nest avoidance during the nesting season would ensure this impact remains ***less than significant.***

Because potential burrowing owl habitat is present on the site, albeit marginal, it will be necessary to conduct pre-construction surveys. Project construction activities commonly result in the destruction of active burrowing owl nests during removal of vegetation or grading, or may result in the abandonment of active nests due to noise and increased activity, without pre-construction surveys. These potential impacts to nesting birds may be considered significant. Though, with the implementation of Mitigation Measure IV.C-1a through IV.C-1d requiring avoidance of ground disturbing activities during nesting season or pre-construction surveys and nest avoidance during the nesting season, this potential impact will be reduced to ***less than significant.***

Mitigation Measure IV.C-1a

If grading/construction/demolition-related activities are to occur within 300 feet of Adobe Creek or the Purissima Creek, a pre-construction/grading/demolition survey for red-legged frogs, tiger salamanders and western pond turtles shall be conducted by a qualified biologist. The survey area would include the creek and/or drainage as well as the grading/construction/demolition zone within 300 feet of the creek/drainage. If California red-legged frogs, California tiger salamander, or western pond turtles were to be observed within the surveyed creek/drainage, the District shall install temporary fencing adjacent to the riparian zone of the creek/drainage that is designated to prevent red-legged frogs, California tiger salamanders or western pond turtles from leaving the riparian zone and entering area where grading/construction would occur. The fencing would extend along the creek drainage for 1,000 feet above and below the construction zone, or to the Project site boundary. The fencing would be maintained and monitored by the District for the duration of the grading/construction period. If California tiger salamanders or western pond turtles are observed within the grading/construction zone, they shall be relocated by the monitoring biologist in coordination with CDFG, to a suitable area outside of the construction zone. Suitable areas would include nearby creeks and lakes with appropriate habitat (e.g., Adobe Creek, San Franciquito Creek, and Lake Lagunitas). If red-legged frogs are observed, grading/construction activities shall be postponed and the USFWS shall be consulted to determine the extent of potential impacts to individual frogs and to identify measures to avoid these impacts. The USFWS shall consider any direct or indirect impacts to individual frogs (including capture or translocation), to be a "take" under the FESA. Consultation with the USFWS will result in either a determination of the need to obtain a permit to allow this "take" or in the identification of measures such as trapping and translocation of red-legged frogs to avoid harm to these animals.

Mitigation Measure IV.C-1b

To prevent the take of nesting native bird species, all clearing and grubbing of the Project site shall take place from September through February. Winter site clearing shall ensure that nesting birds are not present and impacted. If construction is scheduled or ongoing near the perimeter of the grading footprint during bird nesting season (March 1 to September 15), qualified biologists shall survey the area within 200 feet (or up to 300 feet depending on topography or other factors and 500 feet for raptors) of the grading activity to determine if grading is disturbing nesting birds. If nesting activity is being compromised, construction shall be suspended in the vicinity of the nest until fledging is complete.

Mitigation Measure IV.C-1c

Site development would potentially result in mortality of burrowing owls, should any be nesting on the site at the time of Project construction. Mitigation measures that protect burrowing owls from possible direct mortality or nest failure are warranted. Therefore, the Project applicant shall implement the following measures to ensure that burrowing owl mortality from Project construction is avoided.

Pre-construction Survey

A pre-construction survey shall be conducted by a qualified biologist for Burrowing Owls within 30 days of the on-set of construction. This survey shall be conducted according to methods described in the Staff Report on Burrowing Owl Mitigation (CDFG 1995). All suitable habitats of the study area shall be covered during this survey.

Avoidance of Active Nest Burrows

If pre-construction surveys undertaken during the breeding season (February through August) locate active nest burrows within or near construction zones, these nests, and an appropriate buffer around them (as determined by a qualified biologist) shall remain off-limits to construction until the breeding season is determined over. Setbacks from occupied nest burrows of 250 feet where construction would result in the loss of foraging habitat shall be required.

Relocation

During the non-breeding season (August 31 through January 1), resident owls may be relocated to alternative habitat. The relocation of resident owls shall be according to a relocation plan prepared by a qualified biologist. Passive relocation shall be the preferred method of relocation. This plan must provide for the owl's relocation to nearby lands possessing available nesting and foraging habitat.

Mitigation Measure IV.C-1d

The District shall monitor construction activities to ensure that incidental construction impacts on riparian vegetation and special-status wildlife species are avoided or minimized. Responsibilities of the construction biological monitor include the following:

- Attend all pre-construction meetings to ensure that the timing and location of construction activities do not conflict with other mitigation requirements (i.e., seasonal surveys for nesting birds). Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas.

- Discuss procedure for minimizing harm/harassment of wildlife encountered during construction with appropriate construction personnel.

- Review/designate the construction area in the field with the contractor in accordance with the final grading plan. Haul roads, access roads, and on-site staging and storage areas shall be sited within grading areas to minimize degradation of creek and drainage habitat adjacent to these areas. If activities outside these limits are necessary, they shall be evaluated to ensure no special-status species or stream habitat will be affected.

- Conduct a field review of the staking (to be set by surveyor) designating the limits of all construction activity. Any construction activity areas immediately adjacent to riparian areas or other special-status resources (such as bird nests) may be flagged or temporarily fenced by the monitor, at his/her discretion

- Periodically visit the site during construction to coordinate and monitor compliance with the above provisions. The monitor would be present on the site during and grading and/or construction activity within or immediately adjacent to areas of suitable habitat for sensitive wildlife species along Adobe Creek and other on-site drainages. If special-status are observed, the monitor shall halt all activities potentially affecting the animals and take the appropriate action (i.e., translocate the animal, consult with USFWS if a red-legged frog) to ensure that no take of the animal will occur.

The implementation of Mitigation Measures IV.C-1a through IV.C-1d have been designed to protect plants and animals and their habitats and would reduce potential impacts related to candidate, sensitive, or special-status species to a ***less-than-significant*** level.

Impact IV.C-2: The proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFG or USFWS.

Sensitive natural communities within the Project area are limited to the riparian areas along Adobe Creek and Purissima Creek. Riparian habitats are considered sensitive communities because of their value for wildlife habitat, as well as providing other important functions and values such as ground water recharge, sediment and toxicant reduction, flood flow alteration, and nutrient removal and accretion. Additionally the CDFG regulates this sensitive habitat under Section 1600, Lake and Streambed Alteration Program which states that any person, state or local governmental agency, or public agency is required by law to notify the Department of Fish and Game before beginning an activity that will substantially modify a river, stream, or lake. The proposed Project would not impact any of the riparian areas present on the

Project site and therefore, the proposed Project would have a ***less-than-significant*** impact on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations by CDFG or USFWS. However if the Proposed project were to change and the sensitive natural communities within the Project area were to be impacted, the following permits shall be issued and/or reports approved (or exemptions issued) by the respective resource agency, and any associated conditions of approval shall be agreed upon, prior to the initiation of any ground disturbing activities associated with the proposed development:

- Clean Water Act Section 404 Permit from the Corps,
- Streambed Alteration Agreement under Section 1600 of the Fish and Game Code from CDFG;
- Clean Water Act Section 401 Water Quality Certification from the RWQCB; and

Impact IV.C-3: The proposed Project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

No areas within the Project site that are proposed for development have the potential to support federally-protected wetlands or other water features potentially subject to Section 404 jurisdiction (such as creeks). However, if the Project were to potentially impact either Adobe Creek or Purissima Creek it would be necessary, prior to development, to conduct a delineation of wetlands and waters of the U.S. and the state. Adobe Creek and Purissima Creek are considered to be "waters of the United States" and well as being waters of the State and are subject to jurisdiction by the Corps, the RWQCB, and CDFG. Prior to development, a delineation of wetland features, waters of the U.S., and waters of the state would be required if these features were to be impacted or encroached upon. The federal and state governments have a no net loss of wetlands policy. Implementation of the federal and state regulations under the Clean Water Act and the Porter-Cologne Act would require obtaining permits from the Corps and the RWQCB for the placement of fill into any feature covered by Section 404 of the CWA. These permits would identify impacts and mitigation measures. No potentially jurisdictional wetland or waters areas within the Project site would be impacted as a result of the proposed Project and therefore, there would be ***no impact*** related to federally protected wetlands.

Impact IV.C-4: The proposed Project would not interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Adobe Creek is the primary route facilitating wildlife movement to, from, and through the Project area. The proposed Project would not impact either Adobe Creek or the Purissima Creek and would preserve the existing riparian vegetation along these creeks. Therefore, implementation of the proposed Project would not significantly reduce movement of any wildlife species that currently make use of the Adobe Creek as part of their home range or local movements in search of food, water, and shelter. Given that the Project site is currently developed and that eastward movement, other than via Adobe Creek, of wildlife is

limited due to I-280, the development of the proposed Project would not further reduce wildlife movement. Implementation of Mitigation Measure IV.C-1a through IV.C-1d would reduce impacts to wildlife movement to a ***less-than-significant*** level**.**

CUMULATIVE IMPACTS

The geographic context for the analysis of cumulative biological resources impacts consists of Santa Clara County. All future development that may occur in this geographic region would be subject to existing federal, state and local regulations. Land uses and development consistent with the proposed Project and additional fifteen cities and cumulative projects, could result in a significant loss of populations and/or essential habitat for special-status plant and animal species, loss of sensitive natural communities, and wildlife habitat and result in the obstruction of wildlife movement opportunities. However, the proposed Project does not involve the loss of a substantial amount of existing natural habitat, as the majority of the Project involves development within previously developed areas. Given the amount of existing development on and around the Project site, it is likely that the potential minimal impacts to biological resources on-site would not be considered cumulatively considerable when evaluated with other potential projects in the region. Therefore cumulative biological impacts of the proposed Project would be ***less than significant.***

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of mitigation measures IV.C-1a through IV.C-1d identified in this section would adequately mitigate all potential impacts related to biological resources.

IV. ENVIRONMENTAL IMPACT ANALYSIS
F. TRANSPORTATION/CIRCULATION

INTRODUCTION

The information in this section is based primarily on the Foothill College Master Plan EIR Traffic Impact Analysis Administrative Draft EIR Report, DKS Associates, May 28 2008 (included in Appendix F).

Study Intersections and Forecast Scenarios

The following intersections were analyzed as part of the traffic impact analysis during the weekday A.M. (7:00 A.M. – 9:00 A.M.), Midday (11:00 A.M. – 1:00 P.M.) and P.M. (4:00 P.M. – 6:00 P.M.) peak periods:

1. College Loop Road & Foothill College Road
2. El Monte Road - Elena Road & Moody Road
3. El Monte Road & Foothill College Road
4. El Monte Road & Stonebrook Drive
5. El Monte Road & I-280 SB Ramps (qualitative discussion of operation only)
6. El Monte Road & I-280 NB Ramps (qualitative discussion of operation only)
7. El Monte Road & Foothill Expressway[1]

Figure IV.F-1, Existing Lane Geometry and Traffic Control, illustrates the study intersections, existing intersection lane geometry, and traffic control at each of the study intersections. Operations of the surrounding intersections were evaluated for the following scenarios:

Scenario 1 Existing Condition – Level of service based on existing peak hour volumes and existing intersection configurations.

Scenario 2 Project Condition – Existing condition plus the proposed project generated traffic. This scenario evaluates the traffic conditions based on an increase of 2,839 students.

[1] *CMP intersection.*

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Environmental Planning and Research

Figure IV.F-1
Existing Lane Geometry and Traffic Control

Scenario 3 Near-Term Cumulative Condition– Existing peak-hour volumes plus a 1.2 percent traffic growth per year to year 2015 estimated in the vicinity of the project plus proposed project generated traffic.

The Congestion Management Agency (CMA) in Santa Clara County oversees the Santa Clara Valley Transportation Authority's (VTA) Congestion Management Program (CMP). The Santa Clara County CMP defines methodologies and procedures for determining the impact of a potential project on their facilities. The following are CMP facilities within the study area and their functional classification.

- Freeway: U.S. 101 and I-280
- Expressway and Arterials: Foothill Expressway and El Monte Road
- Intersections: El Monte Road and Foothill Expressway

Traffic-related impacts to the surrounding freeway system were also analyzed. A freeway segment is required to be included in the transportation impact analysis if it meets any of the following requirements.

1. The proposed development project is adjacent to one of the freeway segment's access or egress points; or

2. Based on engineering judgment, lead agency staff determines that the freeway segment should be included in the analysis.

Based on these requirements, the following freeway segments were analyzed:

Interstate 280

- Page Mill Road to La Barranca Road
- La Barranca Road to El Monte Rd
- El Monte Road to Magdalena Avenue

ENVIRONMENTAL SETTING

This section provides an evaluation of traffic and transportation issues related to the proposed Project. A description of the exiting transportation system facilities including roadways, intersections, transit service, bicycles, pedestrians, and parking is provided below.

Roadway Network

Regional access to the project area is provided by I-280, Foothill Expressway, El Camino Real and El Monte Avenue. The system of major roadways surrounding the Town of Los Altos Hills is part of the regional system serving traffic generated by the Town of Los Altos Hills and neighboring communities.

Regional Roadway Facilities

Interstate 280 (Junipero Serra Freeway) is an eight-lane freeway in the project area under the jurisdiction of Caltrans. It runs in the north-south direction and includes three mixed-flow lanes and a High Occupancy Vehicle (HOV) lane in each direction near the project site. This freeway provides access to the project site via its interchange with El Monte Road.

Foothill Expressway extends between Page Mill Road in the north and I-280 in the south. Foothill Expressway runs parallel to U.S. 101 and has interchange with I-280 in the south. Based on the 2005 Santa Clara County Congestion Management Program – Monitoring and Conformance Report, Foothill Expressway has an average travel speed of 31 mph in the northbound direction and 32.6 mph in the southbound direction during the A.M. peak hour. During the P.M. peak hour, Foothill Expressway has an average travel speed of 26.9 mph in the northbound direction and 31.6 mph in the southbound direction.

El Camino Real (State Route 82) is an arterial that runs in the north-south direction from San Francisco to San Jose. El Camino Real is a six-lane road in the vicinity of the project, parallel to U.S. 101 and I-280.

El Monte Avenue is a two- to four-lane undivided arterial that operates in the east-west direction; it runs perpendicular to I-280, US 101 and El Camino Real. El Monte Road extends from El Camino Real to the east to its terminus at Moody Road in the west. It has a posted speed limit range of 25 mph to 40 mph.

Local Access

The primary streets that provide access within the study area are discussed below. These streets provide access to the study area as well as the local roadway network. The major intersections within the study area are controlled by traffic signals with the exception of College Loop Road/Foothill College Road, El Monte Road-Moody Road/Elena Road, El Monte Road/I-280 SB ramps and El Monte Road/I-280 NB ramps.

College Loop Road is a one-way, two-lane road located in the Foothill College campus. College Loop Road can be access from its intersection with Moody Road/Elena Road and Foothill College Road. It has a posted speed limit of 20 mph.

Foothill College Road is primarily a four-lane road (two-lanes in each direction) located in the Foothill College campus. It provides access to the campus via El Monte Road. Foothill College Road extends from El Monte Road to its terminus at College Loop Road.

Elena Road is a two-lane roadway (one lane in each direction) that serves the northern boundary of the campus, as well as an entry directly into the campus. This roadway operates in the north-south direction and runs parallel to I-280. It extends from El Monte Road/Moody Road in the south to Avila Court in the north.

Transit Facilities[2]

The VTA is the primary provider of bus public transit in Santa Clara County. VTA currently operates two bus lines within the vicinity of the proposed project. Figure IV.F-2, Transit Network, illustrates the bus routes in the study area.

Line 40

Line 40 provides service between Foothill College and La Avenua/Indigo in Mountain View. Weekday service is provided from 6:36 A.M. to 10:06 P.M. in the northbound direction at 30-40 minute headways in the A.M. peak period and at 30 minute headways during the P.M. peak period. An earlier bus departs from the San Antonio Transit Center at 6:22 A.M. In the southbound direction, service is provided from 5:30 A.M. to 9:40 P.M. at 30 minute headways in the A.M. peak period and at 30-40 minute headways during the P.M. peak hour. Weekend service is also provided. Line 40 travels along Foothill Expressway, El Monte Avenue, and Foothill College Loop Road.

Line 52

Line 52 provides service between Foothill College and Downtown Mountain View. Weekday service is provided from 7:22 A.M. to 4:53 P.M. in the northbound direction at 30-40 minute headways in the A.M. peak period and at 50-60 minute headways during the P.M. peak period. In the southbound direction, service is provided from 7:00 A.M. to 4:28 P.M. at 25-30 minute headways in the A.M. peak period and at 1-hour headways during the P.M. peak hour. No weekend service is provided. Line 52 travels along El Monte Avenue and Foothill College Loop Road.

Bicycle Facilities

The 2008 Santa Clara Valley Bikeways Map indicates bicycle facilities in the vicinity of the project. The existing system consists of three classifications of bicycle facilities:

- Class I facilities (Bicycle Paths off-street) – A completely separated paved right-of-way (shared with pedestrians) which excludes general motor vehicle traffic.
- Class II facilities (Bicycle Lanes on -street) – A striped lane for one-way bike travel on a roadway.

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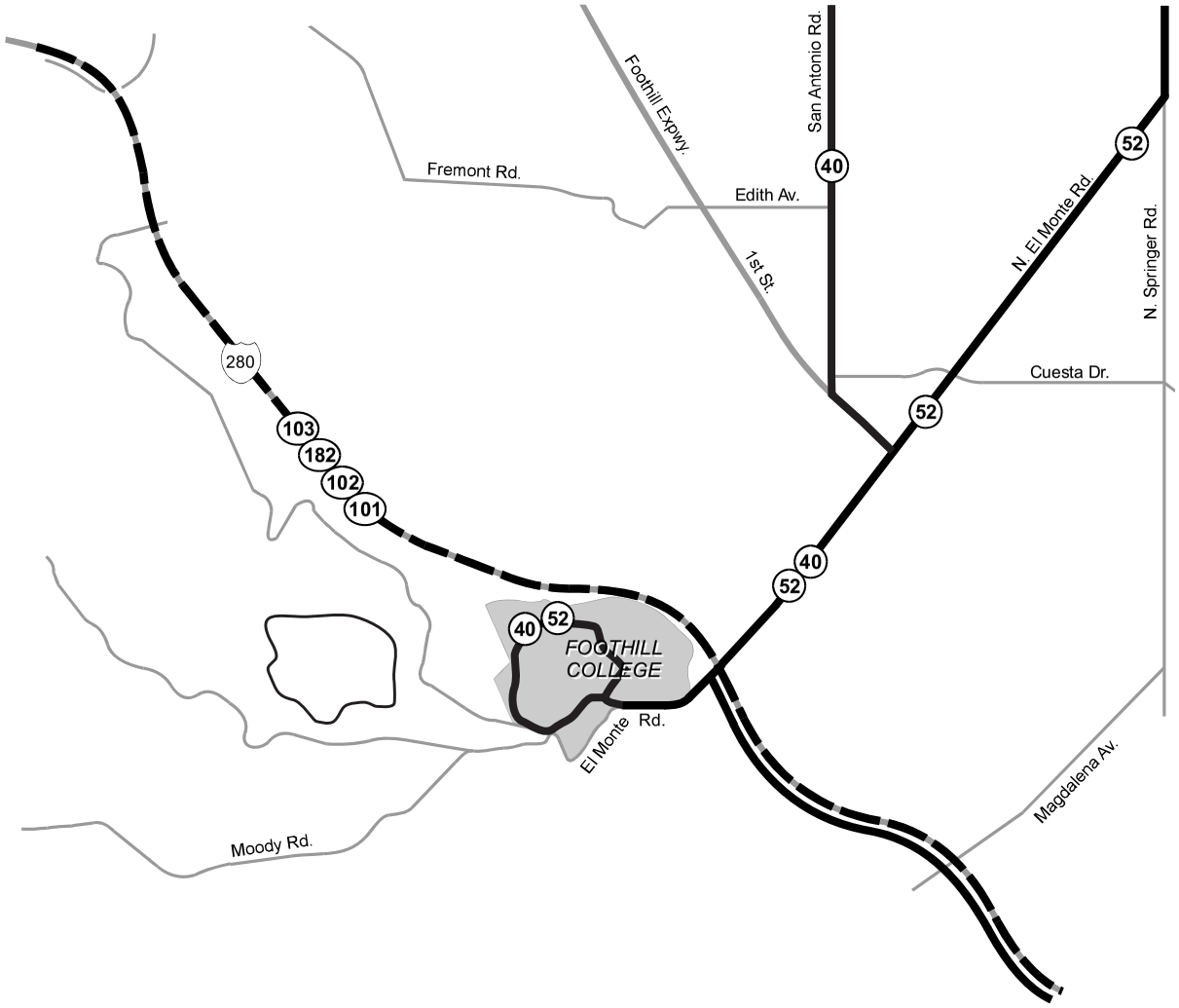
[2] *Based on VTA's schedule effective dates of January 14, 2008.*



Legend:

xx — Bus Routes with Scheduled Trips Only

Source: DKS Associates, June 2008.

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Figure IV.F-2
Transit Network

- Bike Boulevards – Typically a street with low traffic volumes and speeds, with measure for preferential bike treatment.

The bikeways map identified El Monte Road from the I-280 NB on/off ramps in the south to the intersection of Springer and El Monte Boulevard as a Class II bicycle facility. Figure IV.F-3, Bicycle Facilities, illustrates the location of bicycle facilities in the study area.

The Bicycle Facilities figure also illustrates a number of "rated streets". Rated streets are "streets frequently used by bicyclists, where they share the roadway with motorist and merge with motor vehicles. These include city-designated Class III bike routes. Street ratings are based on the following types of characteristics: Extreme Caution, Alert, and Moderate.

The bicycle facilities map identifies El Monte Road from I-280 NB on/off ramps to I-280 SB on/off ramps as "Extreme Caution" street. El Monte Road (from I-280 SB on/ off ramps to Elena Road) and Elena Road as "Alert" streets. Bicycles are permitted along Foothill Expressway. Bicycle parking is provided on campus in various locations.

Pedestrian activity was observed to be light within the vicinity of the project site. However, a number of bicyclists and pedestrians were observed along Foothill Expressway. A limited number of crosswalks and Pedestrian signals are located throughout the campus and surrounding area.

Pedestrian Facilities

Other Improvements

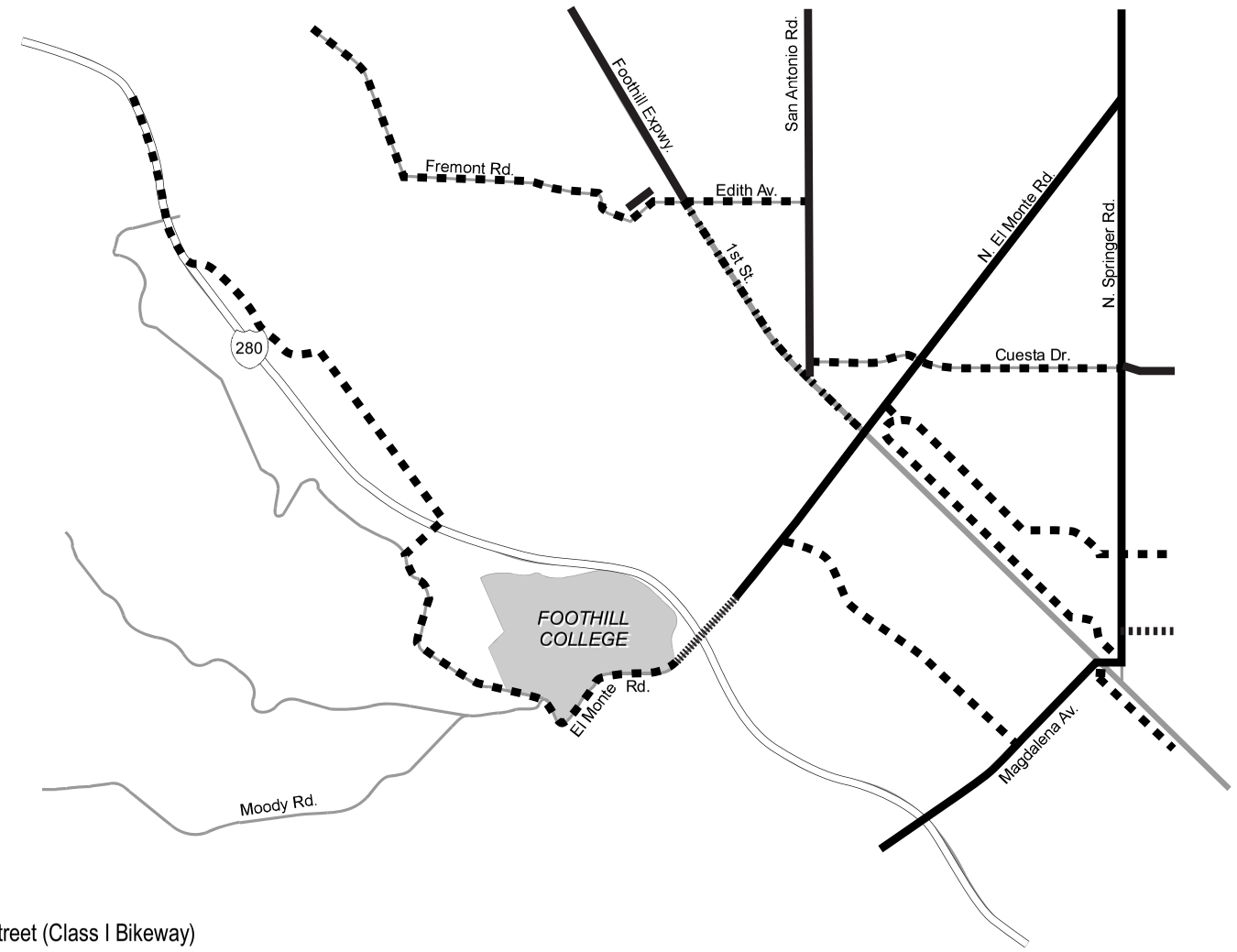
The El Monte Road/Moody Road Bicycle/Pedestrian Path Project consists of five (5) roadway segments along El Monte Road and Moody Road. The project encompasses portions of the Foothill College Entrance Road (loop road). The project outlines several improvements along the corridor that would encourage bicycle and pedestrian use. The improvements include pedestrian paths, additional bike lanes, shoulders and signal modifications. Appendix C includes an illustration of these improvements. Some of these improvements are currently under construction and not funded nor part of the proposed project.

Intersection Operation

ENVIRONMENTAL IMPACTS

Methodology

To evaluate traffic conditions, as well as provide a basis for comparison of conditions before and after project-generated traffic is added to the street system, intersection Level of Service (LOS) analysis was evaluated at five study intersections.



Legend

- Bike Lanes Off Street (Class I Bikeway)
- Bike Paths On Street (Class II Bikeway)
- Extreme Caution
- Alert
- Moderate
- Freeways (Bicycles Prohibited)

Source: DKS Associates, June 2008.

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Figure IV.F-3
Bicycle Facilities

Per the Town of Los Altos Hills and Santa Clara County Congestion Management Program (CMP) requirements, traffic conditions for four of the five study intersections were evaluated using the methodologies provided in the 2000 Highway Capacity Manual (HCM 2000). The designated intersection level of service software analysis program is TRAFFIX. For reference purposes, LOS as defined in the HCM is a quality measure describing operating conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

In addition, the intersection of Foothill College Entrance and College Loop Road was evaluated with the software SIDRA Intersection, using the methodologies provided in the HCM 2000. SIDRA was used since this intersection was recently reconfigured to a roundabout.

Level of Service (LOS) Definition

The LOS evaluation indicates the degree of congestion that occurs during peak travel periods and is the principal measure of roadway and intersection performance. Level of Service can range from "A" representing free-flow conditions, to "F" representing extremely long delays. LOS B and C signify stable conditions with acceptable delays. LOS D is typically considered acceptable for a peak hour in urban areas. LOS E is approaching capacity and LOS F represents conditions at or above capacity.

Since TRAFFIX is also the CMP-designated intersection Level of Service software analysis program the Town of Los Altos Hills methodology embodies the CMP default values for the analysis parameters.

Signalized Intersections

At signalized intersections, level of service is evaluated on the basis of average stopped delay for all vehicles at the intersection. Table IV.F-1 defines the levels of service for signalized intersections.

Unsignalized Intersections

At unsignalized intersections each approach to the intersection is evaluated separately and assigned a LOS. The level of service is based on the delay at the worst approach for two-way stop controlled intersections. Total delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. This time includes the time required for the vehicle to travel from the last-in-queue position to the first-in queue position. Table IV.F-2 provides definitions of LOS for unsignalized intersections.

Roundabouts

The intersection of Foothill College Entrance and College Loop Road was analyzed using SIDRA. Note that HCM does not provide level of service criteria for vehicle traffic at roundabouts. In SIDRA Intersection, the signalized intersection LOS criteria are applied to roundabouts. Therefore, the level of

service is evaluated on the basis of average stopped delay for all vehicles at the intersection. Table IV.F-3 provides definitions of LOS for roundabouts.

Table IV.F-1
Signalized Intersection LOS Thresholds

Level of Service	Average Stopped Delay (seconds/vehicle)	Description
A	Delay ≤10.0	Free flow; minimal to no delay
B+ B B-	10.0< Delay ≤12.0 12.0< Delay ≤18.0 18.0< Delay ≤20.0	Stable flow, but speeds are beginning to be restricted by traffic condition; slight delays.
C+ C C-	20.0 < Delay ≤23.0 23.0 < Delay ≤32.0 32.0 < Delay ≤35.0	Stable flow, but most drivers cannot select their own speeds and feel somewhat restricted; acceptable delays.
D+ D D-	35.0 < Delay ≤ 39.0 39.0 < Delay ≤ 51.0 51.0 < Delay ≤ 55.0	Approaching unstable flow, and drivers have difficulty maneuvering; tolerable delays.
E+ E E-	55.0 < Delay ≤60.0 60.0 < Delay ≤ 75.0 75.0 < Delay ≤ 80.0	Unstable flow with stop and go; delays
F	Delay > 80.0	Total breakdown; congested conditions with excessive delays.

Source: Santa Clara County Congestion Management Program – Transportation Impact Analysis Guidelines. December 1, 2006 (draft).
Notes: 1 Control Delay per vehicle (in seconds per vehicle)

Table IV.F-2
Unsignalized Intersections – LOS Thresholds

Level of Service	Expected Delay	Average Control Delay
A	Little or no delay	≤10
B	Short traffic delay	>10 and ≤ 15
C	Average traffic delays	>15 and ≤ 25
D	Long traffic delays	>25 and ≤ 35
E	Very long traffic delays	>35 and ≤ 50
F	Extreme delays potentially affecting other traffic movements in the intersection	> 50

Source: Transportation Research Board, Special Report 209, Highway Capacity Manual, Chapter 17 Unsignalized Intersections, 2000.
Notes: Worst Approach Delay (in seconds per vehicle)

Table IV.F-3
Roundabouts – LOS Thresholds

Level of Service	Control Delay (d)
A	≤10
B	10 < d ≤ 20
C	20 < d ≤ 35
D	35 < d ≤ 55
E	55 < d ≤ 80
F	80 < d

Source: SIDRA Intersection
Notes: Control Delay (in seconds per vehicle)

Freeway Level of Service

To evaluate the existing freeway traffic conditions, as well as provide a basis for comparison of conditions before and after project-generated traffic is added to the freeway system, the Level of Service (LOS) was evaluated at segments along nearby freeway facilities using the operational analysis procedures from the Transportation Research Board's 2000 Highway Capacity Manual, as required by the Santa Clara County Congestion Management Program.

As described in the 2000 Highway Capacity Manual, the determination of LOS for freeway segments is based on density, with density calculated as:

$$d = V/ N \times S$$

where, d: density (vehicles per mile per lane, vpmpl)

V: peak hour volume (vehicles per hour, vph)

N: number of travel lanes (lanes)

S: average travel speed (miles per hour, mph)

Table IV.F-4 identifies the ranges density used to define levels of service for freeway segments. LOS ranges from LOS A, or free-flow conditions, to LOS F, or highly congested conditions. The density values from the LOS A/B, B/C and C/D thresholds are based on values from HCM 2000. The LOS D/E and E/F thresholds are modified from the values in HCM 2000 to reflect Santa Clara County conditions.

Table IV.F-4
Freeway Segment LOS Thresholds

Level of Service	Density	Speed (miles/hr)	Description of Traffic Condition
A	Density ≤11.0	67.0 ≤ speed	Free flow operations
B	11.0 < density ≤ 18.0	66.5 ≤ speed < 67.0	Reasonably free-flow, and free-flow speeds are maintained
C	18.0 < density ≤ 26.0	66.0 ≤ speed < 66.5	Flow with speeds and or near the free-flow speed
D	26.0 < density ≤ 46.0	46.0 ≤ speed < 46.0	Level at which speed begin to decline with increasing flow
E	46.0 < density ≤ 58.0	35.0 ≤ speed < 46.0	Operation at capacity
F	58.0 < density	Speed < 35.0	Breakdowns in vehicular flow

Source: Santa Clara County Congestion Management Program – Traffic LOS Analysis Guidelines, December 1, 2006
** Density based on passenger cars per mile per lane (pcpmpl).*

Thresholds of Significance

According to the California Environmental Quality Act (CEQA) and CEQA Guidelines, the standards of significance for traffic impacts for a project are:

(a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the V/C ratio on roads, or congestion at intersections);

(b) Exceed, either individually or cumulatively, a LOS standard established by the county congestion management agency for designated roads or highways;

(c) 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;

(d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);

(e) Result in inadequate emergency access;

(f) Result in inadequate parking capacity; or

(g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

According to the County of Santa Clara, the performance standard of intersection is LOS "D" during the A.M. and P.M. peak hours. The level of service methodology is based on critical movements. At CMP facilities, the LOS standard is LOS "E." The level of service at CMP intersection is based on evaluations of all intersection movements.

For CMP intersections, a significant impact for a project is defined as:

- When addition of project traffic causes intersection's LOS under background scenario to deteriorate from acceptable level to LOS "F," or
- If an intersection under background conditions scenario already operates at LOS "F", and under project conditions scenarios, critical movement delay increased by 4 seconds or more; and
- Project traffic increases the critical v/c value by 0.01 or more.

If there is a decrease (negative change) in critical delay or v/c with the added traffic, then only one of the two criteria need to apply to determine the impact of the proposed project.

For CMP freeway segment, a significant impact for a project is defined as:

- When addition of project traffic under the project condition causes a freeway segment LOS to deteriorate from acceptable level to LOS "F," or
- If a freeway segment already operates at LOS "F," and under the project condition scenario, traffic increases by 1 percent or more of capacity.

The Town of Los Altos Hills determines a significant impact for intersections based on the County of Santa Clara guidelines.

Based on the Town of Los Altos Hills level of service standards, an acceptable operating level of service (LOS) is defined as LOS D or better at all signalized and unsignalized intersections during the peak hours except for one intersection.

According to the County of Santa Clara, the performance standard at Congestion Management Program (CMP) facilities is LOS "E." The level of service at CMP intersection is based on evaluations of all intersection movements.

As discussed in the Initial Study (refer to Appendix A), there would be no impact with respect to the Threshold (c) because the Project site is not within the safety areas for any of the area airports. Accordingly, the following discussion focuses on Thresholds (a), (b), (d), (e), (f), and (g).

Project Impacts

Impact IV.F-1 The project would not cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system or exceed, either individually or cumulatively, a LOS standard established by the county congestion management agency for designated roads or highways.

Existing Intersection Operation

Vehicle turning movement counts were conducted at all five study intersections in May 2007. Counts were conducted during a typical weekday A.M. period of 7:00-9:00 A.M., Midday period 11:00 A.M. – 1:00 P.M. and during the P.M. peak period of 4:00-6:00 P.M. Intersection counts were recently conducted at the intersection of Foothill College Entrance and College Loop Road (#1) in May 2008, as this intersection was recently reconfigured from a t-intersection to a roundabout. All counts were conducted when Foothill College was in session to represent typical traffic conditions in the study area.

The intersections and their corresponding existing levels of service are presented in Table IV.F-5.

According to the Town of Los Altos Hills and the Santa Clara County CMP intersection level of service standards, all study intersections operate at acceptable levels of service under the existing condition.

Trip generation of the proposed project was based on the Institute of Transportation Engineers Trip Generation Manual, 7th Edition (2003), as summarized in Table IV.F-6, for the A.M., Midday and P.M. peak hours, respectively. Based on the addition of 2,839 students to the Foothill College campus, the proposed project would generate 3,407 daily new trips, including 341 A.M. peak hour trips (221 in, 119 out), 341 Midday peak hours (85 in, 256 out) and 341 P.M. peak hour trips (187 in, 153 out).

Trip Distribution

The direction of approach and departure for Project trips of the proposed Project was estimated based on existing travel patterns, a projection of likely travel patterns for Project-generated trips, the locations of Foothill College access points, existing and proposed parking, and the locations of complementary land uses. DKS reviewed traffic volumes, turning movements at intersections, and locations of various land uses as part of this analysis. Figure IV.F-4, Project Trip Distribution, illustrates the trip distribution for the A.M. Peak hour, Midday peak hour and P.M. peak hour.

Trip Assignment

Project-generated trips were assigned to the roadway network based on access points, trip distribution assumptions and likely travel patterns. The proportion of these trips that would travel through the study intersections was used for the intersection LOS analysis under the project condition.

Table IV.F-5
Level of Service Analysis Summary Existing Condition

No.	Intersection	Traffic Control	A.M. Peak			Midday			P.M. Peak		
			Avg. Delay[a]	V/C	LOS[b]	Avg. Delay[a]	V/C	LOS[b]	Avg. Delay[a]	V/C	LOS[b]
1.	College Loop Road & Foothill College Road	Round-about	3.4	-	A	3.4	-	A	3.4	-	A
2.	El Monte Road – Elena Road & Moody Road	Unsignalized	10.7	-	B	11.5	-	B	11.7	-	B
3.	El Monte Road & Foothill College Road	Signal	16.0	0.296	C	21.7	0.472	C	25.7	0.582	C
4.	El Monte Road & Stonebrook Drive	Signal	10	0.426	A	7.6	0.331	A	25.0	0.514	C
5.	El Monte Road & Foothill Expressway[c]	Signal	60.1	0.578	E	43.2	0.336	D	50.2	0.705	D

Note: Average Delay is measured in seconds per vehicle, V/C: Volume to Capacity Ratio

[a] For signalized intersections, delays>80 are beyond the upper limits of LOS delay estimation equations under the HCM 2000 Methodologies. For unsignalized intersections, delays>50 are beyond the upper limits of LOS delay estimation equations under the HCM 2000 methodologies. For roundabouts, the average delay is based on the worst approach delay.

[b] For signalized intersections, LOS based on Average Control Delay (in seconds per vehicle). For unsignalized intersections, LOS is based on worst approach delay.

[c] CMP intersection

Source: Foothill College Master Plan EIR Traffic Impact Analysis Administrative Draft EIR Report, DKS Associates, May 28 2008

Project Condition – Intersection Level of Service Analysis

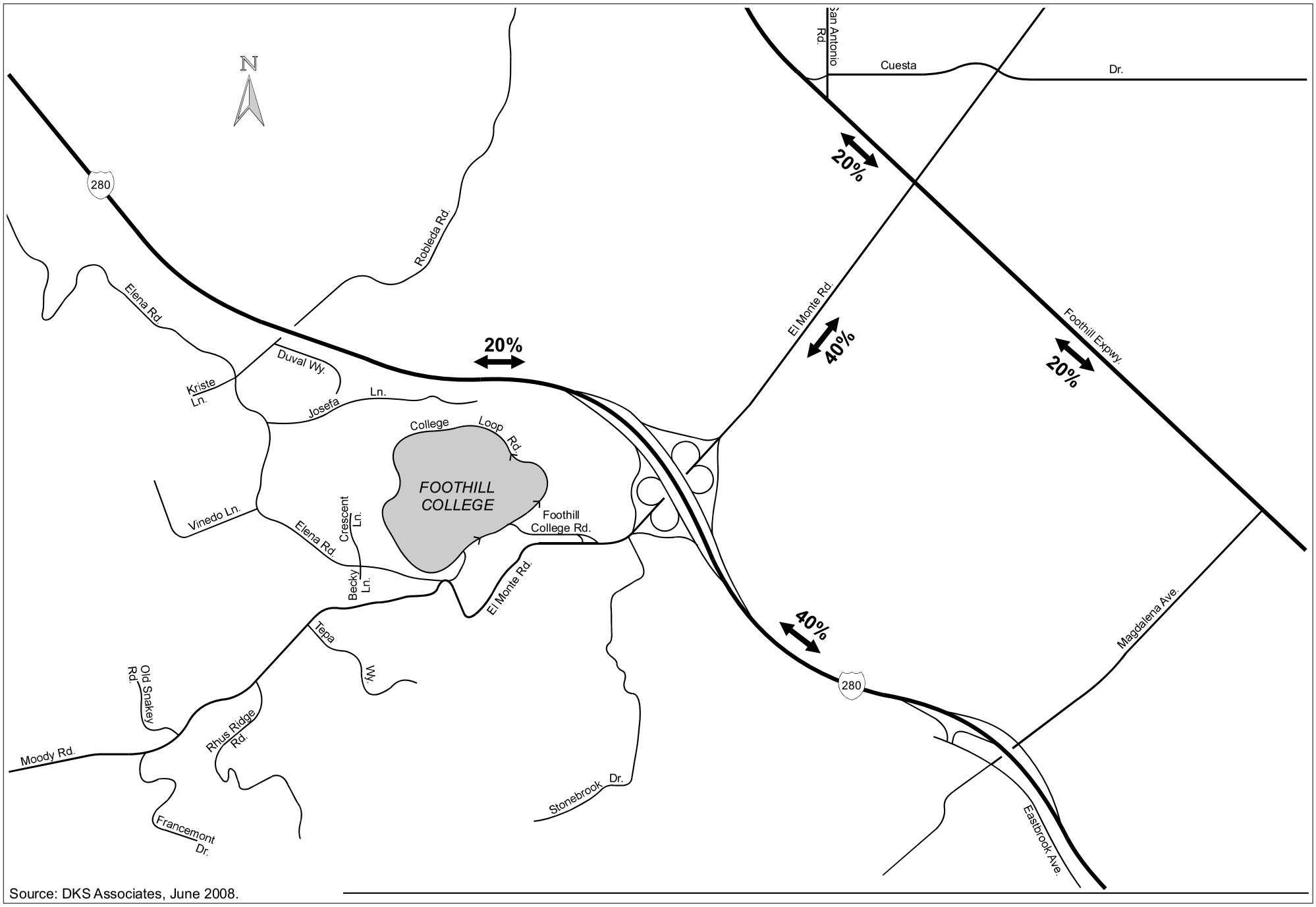
All intersections were evaluated under each of the significance criteria as outlined earlier in this section. Intersection operational levels of service along with their associated critical and average delays are summarized in Table IV.F-7.

According to the Town of Los Altos Hills and the Santa Clara County CMP intersection level of service standards, all study intersections would continue to operate at acceptable levels of service under the project condition.

Table IV.F-6
Proposed Project Trip Generation

Land Use	Size	Units	Daily		A.M. Peak					Midday Peak					P.M. Peak				
			Rate	Trips	Rate	Percent		Trips		Rate	Percent		Trips		Rate	Percent		Trips	
						In	Out	In	Out		In	Out	In	Out		In	Out	In	Out
Community College	2,839	Students	1.2	3,407	0.12	65%	35%	221	119	0.12	25%	75%	85	256	0.12	55%	45%	187	153
Total				3,407				221	119				85	256				187	153

Source: Institute of Transportation Engineers – Trip Generation Manual, 7th Edition 2003. Land Use Code 540 – Junior/Community College – Peak Hour of Generator.



Source: DKS Associates, June 2008.

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Figure IV.F-4
Project Trip Distribution

Table IV.F-7
Level of Service Analysis Summary (Project Condition)

#	Intersection	Traffic Control	A.M. Peak			Midday			P.M. Peak		
			Avg. Delay[a]	V/C	LOS[b]	Avg. Delay[a]	V/C	LOS[b]	Avg. Delay[a]	V/C	LOS[b]
1.	College Loop Rd & Foothill College Rd	Unsignalized	3.4	-	A	3.4	-	A	3.4	-	A
2.	El Monte Rd – Elena Rd & Moody Rd	Unsignalized	10.7	-	B	11.4	-	B	11.5	-	B
3.	El Monte Rd & Foothill College Rd	Signal	20.3	0.337	C	21.1	0.559	C	27.0	0.642	C
4.	El Monte Rd & Stonebrook Dr	Signal	9.4	0.494	A	7.1	0.409	A	24.5	0.602	C
5.	El Monte Rd & Foothill Expressway[c]	Signal	65.1	0.611	E	43.9	0.379	D	52.2	0.737	D

Intersections operating below acceptable LOS D

Notes: Average Delay: in seconds per vehicle V/C: Volume to Capacity Ratio LOS: Level of Service

[a] For signalized intersections, delays >80 are beyond the upper limits of LOS delay estimation equations under the HCM 2000 methodologies. For unsignalized intersections, delays >50 are beyond the upper limits of LOS delay estimation equations under the HCM 2000 methodologies.

[b] For signalized intersections, LOS based on Average Control Delay (in seconds per vehicle). For unsignalized intersections, LOS is based on worst approach delay.

[c] CMP intersection

Source: DKS Associates, 2007.

In order to evaluate the overall near-term (cumulative) condition, a growth rate of 1.2 percent per year (to year 2015), was added to the Existing Condition turning movement volumes at the study intersection. No vehicular traffic that would be generated by pending projects in the neighboring area was considered, as no pending projects were identified that would impact any of the study intersections. In addition, the proposed project trips were added to the near-term cumulative baseline condition. The growth rate accounts for traffic growth that may occur due to speculative developments and ambient traffic growth in the neighboring areas.

Intersection operational levels of service along with their associated average delays are summarized in Table IV.F-8.

Table IV.F-8
Level of Service Analysis Summary (Near-Term Cumulative)

#	Intersection	Traffic Control	A.M. Peak			Midday			P.M. Peak		
			Avg. Delay[a]	V/C	LOS[b]	Avg. Delay[a]	V/C	LOS[b]	Avg. Delay[a]	V/C	LOS[b]
1.	College Loop Rd & Foothill College Rd	Unsignalized	3.4	-	A	3.4	-	A	3.4	-	A
2.	El Monte Rd – Elena Rd & Moody Rd	Unsignalized	11.3	-	B+	12.2	-	B	12.4	-	A
3.	El Monte Rd & Foothill College Rd	Signal	20.3	0.365	C+	22.0	0.604	C	28.3	0.693	C
4.	El Monte Rd & Stonebrook Dr	Signal	9.6	0.535	A	7.3	0.441	A	25.7	0.650	C
5.	El Monte Rd & Foothill Expressway[c]	Signal	77.2	0.666	E-	44.7	0.412	D	55.8	0.805	E

Intersections operating below acceptable LOS D

Notes: Average Delay: in seconds per vehicle V/C: Volume to Capacity Ratio LOS: Level of Service

[a] For signalized intersections, delays >80 are beyond the upper limits of LOS delay estimation equations under the HCM 2000 methodologies. For unsignalized intersections, delays >50 are beyond the upper limits of LOS delay estimation equations under the HCM 2000 methodologies.

[b] For signalized intersections, LOS based on Average Control Delay (in seconds per vehicle). For unsignalized intersections, LOS is based on worst approach delay.

[c] CMP intersection

Source: DKS Associates, 2007.

According to the Town of Los Altos Hills and the Santa Clara County Congestion Management Program intersection level of service standards, all study intersections would continue to operate at acceptable levels of service under the near-term condition. Therefore, the proposed project's impact on cumulative roadway LOS would be ***less than significant***.

Freeway Segment Operation

According the 2005 Santa Clara County Freeway Monitoring Report, three of the mixed-flow freeway segments currently operate at an unacceptable level of service "F" during the P.M. peak hour. Table IV.F-9 lists the existing mixed-flow freeway segments A.M. Peak Level of Service. Table IV.F-10 lists the existing mixed-flow freeway segments P.M. Peak Level of Service.

Table IV.F-9
Existing Freeway LOS Summary – A.M. Peak

Freeway	Segment		Direction	Miles	Lanes	Max Density	LOS (Density)	Speed	Flow
	From	To							
I-280	Page Mill Rd	La Barranca Rd	EB	1.76	4	25	C	66	6,600
I-280	La Barranca Rd	El Monte Rd	EB	1.60	4	18	B	67	4,820
I-280	El Monte Rd	Magdalena Ave	EB	0.95	4	22	C	66	5,810
I-280	Magdalena Ave	El Monte Rd	WB	0.95	4	35	D	62	8,680
I-280	El Monte Rd	La Barranca Rd	WB	1.60	4	39	D	57	8,890
I-280	La Barranca Rd	Page Mill Rd	WB	1.76	4	31	D	65	8,060

Source: Santa Clara County Congestion Management Program. 2005 Monitoring & Conformance Report. Table 4.10

Table IV.F-10
Existing Freeway LOS Summary – P.M. Peak

Freeway	Segment		Direction	Miles	Lanes	Max Density	LOS (Density)	Speed	Flow
	From	To							
I-280	Page Mill Rd	La Barranca Rd	EB	1.76	4	66	F	29	7,660
I-280	La Barranca Rd	El Monte Rd	EB	1.60	4	82	F	20	6,560
I-280	El Monte Rd	Magdalena Ave	EB	0.95	4	91	F	17	6,190
I-280	Magdalena Ave	El Monte Rd	WB	0.95	4	23	C	66	6,070
I-280	El Monte Rd	La Barranca Rd	WB	1.60	4	22	C	66	5,810
I-280	La Barranca Rd	Page Mill Rd	WB	1.76	4	26	C	66	6,860

Source: Santa Clara County Congestion Management Program. 2005 Monitoring & Conformance Report. Table 4.11.

I-280 on/off ramps operation

Based on recent field observations, vehicles traveling in the westbound direction through the Stonebrook Drive/El Monte Road intersection spillback past the El Monte Road/I-280 southbound offramp to westbound El Monte Road, which in turn results in a vehicle queue on the off-ramp.

Similarly, vehicles traveling in the eastbound direction at the Voorhees Drive/El Monte Road intersection spillback past the El Monte Road/I-280 northbound off-ramp to east El Monte Road, which results in a vehicle queue on the off-ramp. There are designated merge lanes prior to maneuvering onto and off of El Monte Road for motorists using one of the cloverleaf ramps. Even in cases where the on- or off-ramp volume is relatively heavy, no spillbacks were observed that resulted in queues on El Monte Road.

The expected moderate increase in vehicular traffic volumes along El Monte Road and the on/off ramps is not anticipated to significantly impact the operation of the ramp junctions. Therefore the proposed projects impact traffic load, capacity of the street system, and LOS would be ***less than significant***.

Congestion Management Program

Freeway segments operational levels of service along with their associated densities are summarized in Table IV.F-11 for the A.M. peak hour and Table IV.F-12 for the P.M. peak hour.

Table IV.F-11
Freeway LOS Summary – A.M. Peak (Project Condition)

Freeway	Segment		Dir.	Lanes	Avg. Speed	Vol.	Project Trips	Density	LOS	Percent Capacity	Significant Impact
	From	To									
I-280	Page Mill Rd	La Barranca Rd	EB	4	66	6,600	44	25.2	C	0.48%	No
I-280	La Barranca Rd	El Monte Rd	EB	4	67	4,820	44	18.1	C	0.48%	No
I-280	El Monte Rd	Magdalena Ave	EB	4	66	5,810	48	22.2	C	0.52%	No
I-280	Magdalena Ave	El Monte Rd	WB	4	62	8,680	88	35.4	D	0.96%	No
I-280	El Monte Rd	La Barranca Rd	WB	4	57	8,890	24	39.1	D	0.26%	No
I-280	La Barranca Rd	Page Mill Rd	WB	4	65	8,060	24	31.1	D	0.26%	No

Source: DKS Associate, 2008.

Table IV.F-12
Freeway LOS Summary – P.M. Peak (Project Condition)

Freeway	Segment		Dir.	Lanes	Avg. Speed	Vol.	Project Trips	Density	LOS	Percent Capacity	Significant Impact
	From	To									
I-280	Page Mill Rd	La Barranca Rd	EB	4	29	7,660	37	66.4	F	0.40%	No
I-280	La Barranca Rd	El Monte Rd	EB	4	20	6,560	37	82.5	F	0.40%	No
I-280	El Monte Rd	Magdalena Ave	EB	4	17	6,190	61	91.9	F	0.66%	No
I-280	Magdalena Ave	El Monte Rd	WB	4	66	6,070	75	23.3	C	0.82%	No
I-280	El Monte Rd	La Barranca Rd	WB	4	66	5,810	31	22.1	C	0.34%	No
I-280	La Barranca Rd	Page Mill Rd	WB	4	66	6,860	31	26.1	D	0.34%	No

Source: DKS Associates, 2008.

As show in Table IV.F-11 and Table IV.F-12, the addition of traffic generated by the proposed project would not result in an increase of more than 1 percent of capacity for the freeway segments. Thus, the proposed project's impact on freeway LOS would be ***less than significant***.

Impact IV.F-3 The project would not cause an increase in hazards due to a design feature.

Project access and circulation was analyzed for the proposed project to assess operational issues. The site plan (Figure III-2) indicates vehicular access to the project site from El Monte Boulevard and Elena Road-Moody Road, with full-access in and out of the site.

The Facilities Master Plan includes campus-wide circulation improvements such as guard rails, crossings, curbs, and bicycle and pedestrian paths along the Loop Road. The Loop Road would also be repaired and resurfaced and new lighting would be installed for safety. In addition, various pedestrian footbridges would be constructed between the parking lots and the campus pedestrian pathways. No adverse internal circulation impacts related to the proposed project are anticipated. Pedestrian safety would continue to be maintained and vehicular access would continue to be facilitated in a safe and efficient manner. The project would not increase hazards due to a design feature, and impacts would be ***less than significant***.

Impact IV.F-4 The project would not result in inadequate emergency access.

As discussed, the site plan (Figure III-2) indicates vehicular access to the project site from El Monte Boulevard and Elena Road-Moody Road, with full-access in and out of the site. The Facilities Master Plan includes campus-wide circulation improvements such as guard rails, crossings, curbs, and bicycle and pedestrian paths along the Loop Road. The Loop Road would also be repaired and resurfaced and new lighting would be installed for safety.

Emergency access is not expected to be significantly impacted by the proposed project. Throughout construction activities, the streets surrounding the proposed project would be open, allowing adequate access for emergency vehicles. Therefore, the proposed project would not result in inadequate emergency access and impacts would be ***less than significant***.

Impact IV.F-5 The project would not result in inadequate parking capacity.

Proposed parking improvements include parking lot expansion and resurfacing. It is anticipated that the parking improvement would add approximately 240 parking spaces, for a total of 3,501 parking spaces.

Currently there are 3,261 parking spaces available on campus. Using a "rule of thumb" estimate for community colleges of a 1:6 parking ratio, the minimum parking demand for the proposed project would be 2,978 parking spaces, based on a population of 17,869 students plus staff. The parking needs of the project would be accommodated on-site with the provision of 3,501 parking spaces. Therefore, no parking deficit is anticipated in the long term and impacts related to parking capacity would be ***less than significant***.

Impact IV.F-6 The project would not result in a conflict with adopted policies, plans, or programs supporting alternative transportation.

The expected moderate increase in vehicular traffic volumes at the study intersections would not significantly impact the pedestrian movements. Also, the additional pedestrian movements generated by the proposed project would continue to be accommodated by existing sidewalks (within the project site). In addition, the proposed project includes the construction of three footbridge connections and relocation of pedestrian paths to reduce traffic conflicts and improve pedestrian and bicycle safety. As shown in Figure III-2, the pedestrian footbridges would be constructed at Parking Lot 1, Parking Lot 2 and 3 and Parking Lot 4.

As described, the signalized study intersections are equipped with pedestrian crossing signals, push buttons, and crosswalks to accommodate pedestrian movements in the vicinity of the project. Based on the presence and current condition of sidewalks, pedestrian amenities and crosswalks, no adverse pedestrian impacts are anticipated due to the project-generated additional pedestrians that would be spread throughout the day. In addition, the proposed project would not interfere with operation of the local transit services or result in the alteration or removal of bike racks, turnouts, or bus stops. Therefore,

the proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation and impacts would be ***less than significant***.

CUMULATIVE IMPACTS

As previously discussed, the potential impacts caused by implementation of the proposed project were compared to the near term cumulative base conditions. A growth rate of 1.2 percent per year (to year 2015) was added to the existing traffic volumes in order to evaluate the near term cumulative condition. The project-specific impacts as analyzed above for year 2015 also serve as the cumulative analysis and the impacts are identical. Therefore the proposed project's contribution to cumulative transportation and circulation impacts is ***less than significant***.

MITIGATION MEASURES

Because no impacts have been identified, no mitigation measures are required or recommended.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

All transportation/traffic impacts would be ***less than significant***.

V. GENERAL IMPACT CATEGORIES

A. SUMMARY OF SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the *CEQA Guidelines* requires that an EIR describe any significant impacts which cannot be avoided. Specifically, Section 15126.2(b) states:

> "*Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reason why the project is being proposed, notwithstanding their effect, should be described."*

Based on the analysis contained in Section IV (Environmental Impact Analysis) of this Draft EIR, the proposed Project would result in a significant and unavoidable cumulative impact with respect to air quality.

B. GROWTH INDUCING IMPACTS OF THE PROPOSED PROJECT

Section 15126.2(d) of the *CEQA Guidelines* requires a discussion of the ways in which a proposed action could be growth inducing. This includes ways in which the project would foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Specifically, Section 15126.2(d) states:

> "*Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."*

The proposed Project would foster minimal economic growth by increasing the number of faculty, staff, and students on the project site, who would in turn, also patronize local businesses and services in the area. However, most all of this economic growth would occur at the campus regardless of implementation of the proposed Project. Also, this demand would be somewhat offset by the services already offered by the campus.

The proposed Project does not include any residential land uses that would result in a direct population increase within the Town of Los Altos Hills. Employment opportunities provided by construction of the

proposed Project would not likely result in household relocation by construction workers to the City. The construction industry differs from most other industry sectors in several important ways:

- Construction employment has no regular place of business. Rather, construction workers commute to job sites that may change several times a year.
- Many construction workers are highly specialized (e.g., crane operators, steel workers, masons) and move from job site to job site as dictated by the demand for their skills.
- The work requirements of most construction projects are also highly specialized and workers are employed on a job site only as long as their skills are needed to complete a particular phase of the construction process.

Construction workers would likely be drawn from the construction employment labor force already residing in the region. It is not likely that construction workers would relocate their place of residence as a consequence of working on the proposed project.

As of the fall quarter for the 2007-2008 fiscal year, there are 18,522 credit students at the College.[1] Student enrollment in the fall quarter has increased since the 2004-2005 fiscal year. The Master Plan used the 2005-2006 Long Range Enrollment and Weekly Student Contact Hours (WSCH) Forecast, which represents approximately a 1.5 percent annual growth rate. Based on this annual growth rate, the Master Plan and accompanying illustrations provide a vision of the recommendations for campus development and renovations over the next five-to-ten year period.

Based on current enrollment information, the majority of students attending the College within Santa Clara County and nearby counties such as San Mateo County, Santa Cruz County, and Alameda County. Community college students typically attend colleges that are within an easy commute distance from their existing place of residence. It is not anticipated that students would relocate to the Town of Los Altos Hills to attend the College. Therefore, the proposed Project would not create a need for new housing units, the construction of which could cause an environmental impact. The proposed infrastructure improvements at the College would not induce growth because it would only serve the projected student and staff population. Therefore, development of the proposed Project would not indirectly induce substantial population growth.

The project site is located in a developed area served by an extensive roadway system. Wastewater from the project site is conveyed to the Palo Alto Regional Water Quality Control Plant via an eight-inch sanitary sewer provided by the City of Los Altos. Water service to the site is provided by the Purissima Hills Water District, and water is obtained from the Hetch Hetchy Reservoir and Sunol Valley Water Treatment Plant. The proposed project would connect to existing water and wastewater lines. According

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[1] *Foothill-De Anza Community College District, Institutional Research & Planning, website: http://research.fhda.edu/factbook/TrendData/Tables/Foothill_Headcount_by_Term.pdf, May 27, 2008.*

to the utility service providers mentioned above, utility infrastructure, water supplies, and water/wastewater treatment capacities are adequate to serve the project, and no additional infrastructure, sources of water, or treatment capacity would be required.[2]

Fire, police protection, school, and parks and recreational services that are provided to the project area (including the project site) are accommodated by the Santa Clara County Fire Department, the Foothill-De Anza Community College District Police Department, the Palo Alto Unified School District, the Los Altos School District, the Mountain View-Los Altos Union High School District, and the Town of Los Altos Hills Parks and Recreation Department, respectively. According to these public service providers, the project's demand for public services can be accommodated without the need for new or altered facilities.[3]

Because the project would not result in a removal of obstacles to population growth or require the construction of new or expanded utility or public facilities off-site, the project would not be considered growth-inducing.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Section 15126.2(c) of the *CEQA Guidelines* states that significant irreversible environmental changes associated with a proposed project shall be discussed, including the following:

- *Uses of nonrenewable resources during the initial and continued phases of the project that may be irreversible because a large commitment of such resources makes removal or nonuse thereafter unlikely;*

- *Primary impacts and, particularly, secondary impacts (such as highway improvement that provides access to a previously inaccessible area), which generally commit future generations to similar uses; and*

- *Irreversible damage that could result from environmental accidents associated with the project.*

Construction of the proposed project would require the use of nonrenewable resources (i.e., wood, metals, sand, gravel, fossil fuels) for building materials and to fuel construction vehicles and equipment. Subsequent use and maintenance of the project would also require the long-term consumption of these nonrenewable resources at reduced levels. However, there are currently no shortages to the extent that would preclude the construction of the project, nor are shortages anticipated in the future, of the resources required to build and maintain the proposed project.

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[2] *Refer to the Initial Study found in Appendix A for a discussion of the Project's potential impacts related to utilities and service systems.*

[3] *Refer to the Initial Study found in Appendix A for a discussion of the Project's potential impacts related to public services.*

The proposed project includes the construction of two buildings totaling 62,496 gross square feet of building space, as well as various utility, landscaping, signage, lighting, and site improvements and upgrades; renovation of sport facilities and campus buildings; and ongoing Americans with Disabilities Act (ADA) improvements. The proposed Project would permanently convert lands previously improved with buildings and a parking lot. It would be possible to revert the land use to a parking lot. The College is part of the California Community College System and, therefore, the *Town of Los Altos Hills General Plan* and the Los Altos Hills Municipal Code do not have jurisdictional authority over the Project site. However, the proposed Project is consistent with the College's Facilities Master Plan goals and would therefore be consistent with the District's vision of use for the site.

Irreversible changes to the physical environment could occur from accidental releases of hazardous materials associated with development. However, compliance with hazardous materials regulations, policies and mitigation measures (as outlined in the Initial Study included as Appendix A to this Draft EIR) is expected to maintain this potential impact as less than significant. No other irreversible changes would result from the adoption and implementation of the proposed Project.

VI. ALTERNATIVES TO THE PROPOSED PROJECTS

A. PURPOSE

The purpose of the alternatives analysis of this EIR is to assess a range of reasonable alternatives to the proposed Project that would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant impacts of the project and to evaluate the comparative merits of the alternatives (*CEQA Guidelines* §15126.6). The *Guidelines* state that the selection of alternatives should be governed by a "rule of reason." CEQA also states that, "[t]he EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." Generally, significant impacts of an alternative shall be discussed, but in less detail than the proposed Project, and should provide decision makers perspective as well as a reasoned choice.

B. ASSUMPTIONS AND METHODOLOGY

To develop Project alternatives, the EIR preparers considered the Project objectives and reviewed the significant impacts in Section IV of this EIR to identify those significant impacts that could be avoided or reduced substantially through an alternative (refer to Table VI-1 at the end of this section).

The objectives of the Project are as follows:

- Renovate aging facilities to address current educational needs and technological advances;
- Provide additional instructional space for growing programs including chemistry, physics, nanotechnology, life and health science programs, adaptive learning, and learning communities;
- Ensure the safety of students, faculty and staff through the development of safe and accessible vehicular and pedestrian paths;
- Consolidate related programs into "clusters" in order to maximize resources and to provide easier access to students, faculty and staff; and
- Enhance the overall appearance of the campus by replacing temporary buildings (portables, modulars, etc.) with permanent facilities.

Impacts associated with the following topics would be significant without the implementation of mitigation measures, but would be reduced to a less-than-significant level if the mitigation measures recommended in this EIR are implemented.

- Biological Resources
- Cultural Resources
- Noise

The Project would result in significant and unavoidable cumulative impacts related to air quality (greenhouse gas) even with implementation of the proposed mitigation measures.

The following discussion is provided to meet the requirement of the *CEQA Guidelines* and provide the public and decision makers with information that will help them understand the adverse impacts and benefits associated with the three potential alternatives to the proposed Project. These alternatives were chosen for their ability to reduce or avoid impacts resulting from the Project to air quality, biological resources, cultural resources, noise, and transportation/circulation. A discussion of the environmentally superior alternative is also provided.

Alternatives Considered but Rejected

Alternate Project Site Alternative

This alternative considered implementation of the proposed Project on an alternate District-owned site within the District area. However, this alternative was rejected for further analysis because the District does not own any other property that would be feasible for this Project and can not "reasonably acquire, control or otherwise have access to [an] alternative site" (refer to §15126.[f][1] of the *CEQA Guidelines*). Thus, this alternative was deemed infeasible.

C. SELECTED ALTERNATIVES

Overview of Selected Alternatives

Three alternatives are evaluated in this analysis: the No Project/No Build, Reduced Intensity, and Alternate Site Plan Configuration alternatives. All alternatives are located on the Project site. Differences between the build alternatives include the number and/or average size of the buildings and changes to internal roadway configurations. A more thorough description of each of the alternatives is provided below. The alternatives to be analyzed in comparison to the proposed Project include:

Alternative A: No Project/No Build Alternative

Alternative B: Reduced Intensity

Alternative C: Alternate Site Plan Configuration

Assumptions and Methodology

A project may have the potential to generate significant impacts, but considerations in project design may also afford the opportunity to avoid or reduce such impacts. The alternatives analysis is presented as a comparative analysis to the proposed Project. The following alternatives analysis compares the potential significant environmental impacts of the three alternatives with those of the proposed Project for each of the environmental topics analyzed in detail in Section IV (Environmental Impact Analysis) of the EIR.

Alternative A – No Project/No Build Alternative

As required by CEQA, this subsection analyzes a "No Project" Alternative (Alternative A). Under Alternative A, the proposed Project would not be constructed, and the Project site would remain in its current condition. The analysis of Alternative A assumes the continuation of existing conditions including use of the existing 304,340 square feet (sf) of assignable space and 431,684 of gross sf that houses the existing campus buildings. No additional buildings or parking areas would be developed and circulation improvements would not be implemented.

Specifically, under Alternative A, the Physical Sciences and Engineering Center (PSEC), the Scene Shop, and an additional 240 parking spaces would not be constructed. Campus-wide circulation improvements would not take place and no utility improvements would occur. Renovations to the District Offices, TV Center, Japanese Cultural Center, Stadium, and Swim Pool Area Storage would also not occur. However, under Alternative A the student population at the College would continue to increase, ultimately resulting in the overcrowding of existing facilities. In addition, the integrity of historic structures could be degraded under Alternative A since renovations required for overall building structures and facilities maintenance would not occur.

Air Quality

Alternative A would not require construction; therefore, no emissions would be generated by construction vehicles, demolition, grading, or through construction-worker vehicle trips. Operational emissions from new buildings would not occur and no additional stationary area source emissions from the consumption of natural gas for space and water heating devices or the operation of landscape maintenance equipment would occur. However, similar to the Project, operational and greenhouse gas emissions from normal day-to-day activities on the Project site would increase under Alternative A due to the continued rise in student population. Although impacts to air quality under Alternative A would be incrementally less than under the Project, cumulative impacts from greenhouse gas emissions would remain similar to the Project and, therefore, significant and unavoidable.

Biological Resources

Under Alternative A, none of the special-status species at the site would be affected. No impact would occur to the potentially occurring wildlife species at the Project site. Further, impacts to wildlife movement, although minor under the Project, would not occur under Alternative A. Similar to the Project, Alternative A would not result in impacts to riparian habitat or federally protected wetlands.

Cultural Resources

The buildings and landscape features on the campus appear to be contributors to a potential historic district. Under Alternative A, no additional development would occur on the campus and no improvements would take place. Thus, no potential less than significant impacts to historic resources would occur because no renovation would occur and no additional development would be sited in close

proximity to potential district contributors. However, the integrity of historic structures could be degraded under Alternative A since renovations required for overall building structures and facilities maintenance would not occur. Under Alternative A, no grading would occur and therefore no impacts to archaeological or paleontological resources would occur under Alternative A. Impacts to cultural resources under Alternative A would be greater than under the Project due to the lack of building renovation required to maintain the conditions of the existing buildings.

Noise

Under Alternative A, no construction would occur and there would be no demolition or construction that would create construction-generated noise or groundborne vibration. Alternative A would not construct any new buildings on the site and there would not be any on-site operational noise generated by rooftop heating, ventilation, and air conditioning (HVAC) systems, or noise from campus operations. However, similar to the Project, Alternative A would result in any increase in traffic-generated noise due to anticipated increases in student enrollment on the Project site. Therefore, impacts to noise under Alternative A would be the same as under the Project.

Transportation/Circulation

Under Alternative A, no new development on the Project site would occur. However, student enrollment would continue to increase resulting in the generation of traffic trips. Thus, Alternative A would result in the same less-than-significant impacts related to intersections operation and freeway operation as the Project. Impacts to transportation/circulation under Alternative A would be the same as under the Project.

Relationship of Alternative A to the Project Objectives

Alternative A would not meet any of the Project objectives, as they are focused on upgrading the campus to meet new demands. Specifically, the objectives include renovating aging facilities; providing additional instructional space; ensuring the safety of students, faculty, and staff; and consolidating programs into "clusters". Alternative A would not enhance the overall appearance of the campus. For these reasons, Alternative A would not meet any of the Project objectives.

Alternative B – Reduced Intensity

Limited renovation and infrastructure improvements would take place under Alternative B. Under Alternative B, the District would still need to accommodate an increasing student body and, therefore, would still need to expand instructional opportunities. Under this Alternative, the PSEC and Scene Shop would not be constructed and no new parking areas would be provided. However, it is assumed that the District would address increased enrollment by housing students in leased facilities offsite or by expanding the online class options. The location of these facilities is not known and for the purposes of this analysis, but it is assumed that additional growth would occur off campus. Since some of increased demand for education services would be accommodated through online classes, this Alternative assumes that approximately half of the square footage proposed under the Project would need to be provided off

site. Therefore, approximately 30,000 square feet of gross square feet would need to be provided in leased facilities. Limited site improvements that would occur under Alternative B include: Utility Improvements; Campus-Wide American with Disabilities Act (ADA) Improvements; and Signage, Wayfinding, and Lighting Improvements. These improvements would be included under Alternative B because they would be the minimum improvements required to maintain safety standards at the campus. The following improvements would not occur under Alternative B: Campus-Wide Landscaping and Site Improvements; Soccer, Baseball, and Softball Complex Improvements; and Tennis Courts Improvements. Finally, only limited renovation activities would occur under Alternative B including: renovations to the Stadium to meet current codes and for ADA accessibility and campus-wide infrastructure upgrades to mechanical, electrical, and plumbing systems. The change of use to the Adaptive Learning Center, Learning Support Center, Radio Station, and Language Arts Office/Classrooms would take place.

Air Quality

Similar to the Project, construction of Alternative B would generate pollutant emissions from construction vehicles, demolition, grading, or construction-worker vehicles. In addition, stationary area source emissions (consumption of natural gas for space and water heating devices, and the operation of landscape maintenance equipment) associated with the Project would still be generated. However, due to the fact that less development, improvements, and renovations would occur, these emissions would be incrementally reduced.

Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities on the campus after implementation of the proposed Project. Mobile emissions would be generated by the motor vehicles traveling to and from the Project site. Under Alternative B, stationary source emissions would be generated and Project-related trips would occur. Due to the reduced intensity of Alternative B, these trips would be reduced in number to the Project site, but would still be undertaken to the location of leased facilities. Increases in enrollment for on-line course could potentially incrementally decrease vehicle trips. Thus, impacts related to stationary and mobile pollutant sources would be less under Alternative B than under the Project. However, although Alternative B would result in less development, cumulative impacts related to greenhouse gases would still be significant and unavoidable, similar to the Project.

Biological Resources

Under Alternative B, impacts to special-status species would be less than under the Project because the PSEC and Scene Shop would not be constructed. However, these impacts would not be completely eliminated because limited renovations and improvements would still take place. Similar to the Project, Alternative B would have a less-than-significant impact on riparian habitat because activities under Alternative B would not affect the drainage areas of the campus. With respect to movement of wildlife, impacts under Alternative B would also be less than under the Project.

Cultural Resources

The buildings and landscape features on the campus appear to be contributors to a potential historic district. Under Alternative B, the PSEC and Scene Shop would not be constructed, but limited renovations and improvements would take place. Under the Project, impacts to the potential historic district would occur due to Project activities in close proximity to potential district contributors. Because development under Alternative B would be less intense, impacts would be incrementally less than under the Project. Similarly, impacts to archaeological or paleontological resources would be less under Alternative B than under the Project.

Noise

Under Alternative B, renovation and site improvements would occur on the campus, which would create some construction-generated noise or groundborne vibration. However, because the PSEC and Scene Shop would not be constructed, noise-related impacts particularly with regard to construction would be reduced. Similar to the Project, Alternative B would still be required to accommodate some additional students off site which would result in traffic-generated noise at off-site leased facilities. Because additional students would be accommodated off site and the additional parking areas would not be developed, traffic noise would be incrementally less under Alternative B than under the Project.

Transportation/Circulation

The PSEC, Scene Shop, and additional parking areas would not be constructed under Alternative B. The trip generation for the Project is based on the number of students attending classes, impacts to intersection and freeway operations would be less under Alternative B because the increase in students would be accommodated either off site or online. Increases in enrollment for on-line course could potentially incrementally decrease vehicle trips. Due to the reduced intensity of Alternative B, these trips would be reduced in number to the Project site, but would still be undertaken to the location of leased facilities. However, lacking an alternative leased facilities site, changes in traffic patterns resulting from this alternative would be impossible to predict at this point. Parking impacts would be the same as the under the Project, however, because even without the additional 240 parking spaces, the campus currently has more parking than what is required using the standard ratio of parking needed for community colleges. Impacts related to traffic would be incrementally less under Alternative B than under the Project.

Relationship of Alternative B to the Project Objectives

Alternative B would meet some of the Project objectives, but not all. For instance, Alternative B would provide additional instructional space but the space would likely be provided off campus and through online classes. Since some renovation would take place, Alternative B would meet the objective to renovate aging facilities. However, Alternative B would not allow the consolidation of related programs into "clusters" because it is assumed that the "change of use" (which would not occur under Alternative

B) would facilitate the clusters. Furthermore, Alternative B would not enhance the overall appearance of the campus and the safety of students, faculty, and staff would not be protected by upgrades to buildings.

Alternative C – Alternate Site Plan

Alternative C proposes the relocation of the PSEC to the northern area of the campus, north of the 4100 Building and south of Parking Lot 3 and the Loop Road, on a sloping hillside. Parking Lot 4 would be expanded as envisioned in the original master plan, since that site would not be used by the PSC, thus the Project would include a total of approximately 400 spaces. Other aspects of Alternative C would be similar to the Project. Improvements to the overall site as well as renovation of several of the existing buildings on the campus and change of use for identified buildings. The Scene Shop would be constructed under Alternative C in the same location as the Project.

Air Quality

Similar to the Project, construction of Alternative C would generate pollutant emissions from construction vehicles, demolition, grading, or construction-worker vehicles. In addition, stationary area source emissions (consumption of natural gas for space and water heating devices, and the operation of landscape maintenance equipment) associated with the Project would still be generated. These emissions would not be incrementally reduced because the same amount of construction would occur under Alternative C.

Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities on the campus after implementation of the proposed Project. Mobile emissions would be generated by the motor vehicles traveling to and from the Project site. Under Alternative C, the same amount of stationary source emissions would be generated and the same amount of trips would be generated. Thus, air quality impacts under Alternative C (including significant and unavoidable cumulative impacts) would be the same under Alternative C as the Project.

Biological Resources

Under Alternative C, all Project activities would occur, but the PSEC would be relocated to the northern portion of the site, south of Parking Lot 3 and Loop Road. Under Alternative C, the currently undeveloped hillside area would be graded and and two large oak trees would be removed. Although impacts related to biological resources are primarily related to proximity to one of the two drainages on the campus, the loss of trees and grading of undeveloped areas would be an increase in impacts to biological resources. Therefore, Alternative C would result in more impacts to biological resources than the Project.

Cultural Resources

Under Alternative C, all Project activities would occur, but the PSEC would be relocated to the northern portion of the site, south of Parking Lot 3 and Loop Road. Impacts to the potential historic district would

be greater than under the Project because under Alternative C the PSEC would be in closer proximity to potential contributors to the historic site (Building 4100 [CTIS & PSME Division Offices], Building 4200 [CTIS General Classrooms], and Building 4300 [Computer Center]) than if the PSEC were located in the western portion of the site. Further, the steep hillside site would not be conducive to design consistent with the existing historic style. Because Alternative C would result in the same amount of development, impacts to archaeological or paleontological resources would also be similar to the Project. Overall, impacts to cultural resources would be greater under Alternative C than the Project.

Noise

Under Alternative C, construction and demolition would occur on the site, which would create construction-generated noise or groundborne vibration. Similar to the Project, Alternative C would construct new buildings on the site and there would be on-site operational noise generated by rooftop heating, ventilation, and air conditioning (HVAC) systems, and noise from campus operations. However, because activities would be the same as under the Project (with the exception of the relocation of the PSEC and expansion of parking lot 4), impacts would be similar to the Project under Alternative C with the exception of potential noise impacts to nearby residential uses. The relocation of the PSEC from the western portion of the campus (outside Loop Road) to the northern portion of the campus (inside Loop Road) would provide greater distance between the stationary noise sources and residential uses to the west of the campus, however use of this building site would allow parking lot 4 to be expanded as originally envisioned in the master plan, locating vehicular noise closer to residential uses. Thus, impacts related to noise are the same under Alternative C as the Project.

Transportation/Circulation

Under Alternative C, all Project activities would occur but the PSEC would be relocated to the northern portion of the site, south of Parking Lot 3 and Loop Road. The alternate location of this building would not change any of the conclusions related to traffic impacts and Alternative C would result in similar impacts as the Project.

Relationship of Alternative C to the Project Objectives

Alternative C would meet all of the Project's objectives including renovation of aging facilities; providing instruction space, ensuring the safety of students, faculty, and staff; consolidation of related programs into "clusters," and enhancing the overall appearance of the campus.

D. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an EIR alternatives analysis include designation of an "environmentally superior" alternative. Alternative A, the No Project/No Build Alternative, would result in greatest reduction in project impacts and would be the environmentally superior alternative. However, CEQA requires that if the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an

environmentally superior alternative from another the other alternatives. Alternative B, Reduced Intensity, would reduce most environmental impacts resulting from the Project. However, Alternative B would not reduce the significant unavoidable impact to air quality.

Table VI-1
Alternatives Comparison

IMPACT AREA	PROJECT	ALTERNATIVE A No Project/No Build	ALTERNATIVE B Reduced Intensity	ALTERNATIVE C Alternate Site Plan
Air Quality	S	=	=	=
Biological Resources	LTS/M	—	—	+
Cultural Resources	LTS/M	+	—	+
Noise	LTS/M	=	—	=
Transportation and Traffic	LTS	=	—	=

Key:
S = Significant Impact
LTS = Less-than-Significant Impact
LTS/M = Less-than-Significant Impact with Mitigation
\+ = Impact greater than the Project
= = Impact similar to the Project
— = Impact less than the Project

VI.

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VIII. REFERENCES

PROJECT DESCRIPTION

Foothill-De Anza Community College District, 2008.

IMPACTS FOUND TO BE LESS THAN SIGNIFICANT

2001 Foothill College Revised Facilities Master Plan and District Facilities Projects Initial Study, October 26, 2001.

California Department of Transportation, "The California Scenic Highway System: A List of Eligible and Officially Designated Routes," website: http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm, Accessed June 2, 2007.

California Division of Land Resource Protection, Farmland Mapping and Monitoring Program Overview, website: http://www.consrv.ca.gov/dlrp/FMMP/overview/survey_area_map.htm, Accessed June 2, 2007.

California Integrated Waste Management Board, Facility/Site Summary Details, website: http://www.ciwmb.ca.gov/SWIS/detail.asp?PG=DET&SITESCH=43-AN-0003&OUT=HTML, Accessed June 13, 2007.

California Integrated Waste Management Board, Estimated Solid Waste Generation Rates for Institutions, website: http://www.ciwmb.ca.gov/WasteChar/WasteGenRates/Institution.htm, Accessed June 13, 2007.

City of Los Altos Hills, School Districts, website: http://www.losaltoshills.ca.gov/government/support-agencies.html, Accessed June 7, 2007.

City of Palo Alto, Palo Alto Regional Water Quality Control Plant: Process Tour, website: http://www.city.palo-alto.ca.us/depts/pubworks/waterquality/tour/index.html, Accessed June 8, 2007.

City of Palo Alto, Regional Water Quality Control Plant: Water Reuse Program, website: http://www.city.palo-alto.ca.us/waterreuse/, Accessed June 8, 2007.

Email correspondence with Patrick Walter, General Manager, Purissima Hills Water District, June 14, 2007.

Email correspondence with Steve Prziborowski, Chief, Santa Clara County Fire District, July 25, 2007.

Federal Emergency Management Agency (FEMA), FEMA Flood Insurance Rate Map, Los Altos Hills, San Mateo County, California, Community Panel Number 0603420002B, website:

http://map1.msc.fema.gov/idms/IntraView.cgi?ROT=0&O_X=9115&O_Y=2966&O_ZM=0.078386&O_SX=870&O_SY=465&O_DPI=400&O_TH=65111580&O_EN=65120669&O_PG=1&O_MP=1&CT=0&DI=0&WD=14839&HT=10206&JX=1008&JY=525&MPT=0&MPS=0&ACT=0&KEY=65110042&ITEM=1&PICK_VIEW_CENTER.x=361&PICK_VIEW_CENTER.y=166&R1=VIN, Accessed June 28, 2007.

Foothill College, Summary Reports, website: http://www.foothill.edu/services/studentright1.html, Accessed June 12, 2007.

Foothill-De Anza Community College District, Foothill College Projects Draft Environmental Impact Report, March 2002.

Google Earth, 2007.

Phone correspondence with Fred Amadkani, Water and Access Deputy, Santa Clara County Fire District, August 1, 2007.

Phone correspondence with John Candau, Operations Manager, Los Altos Garbage Company, June 8, 2007.

Phone correspondence with Larry Lind, Associate Civil Engineer, City of Los Altos, June 7, 2007.

Phone correspondence with Patrick Walter, General Manager, Purissima Hills Water District, June 7, 2007.

Phone correspondence with Ron Levine, Chief of Police, Foothill-De Anza Community College District Police Department, June 22, 2007.

AIR QUALITY

BAAQMD, 1999, BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans, December.

BAAQMD CEQA Guidelines, 1999.

BAAQMD, Permit Handbook Chapters, Figure D-2, retrieved from website: www.baaqmd.gov/pmt/handbook/default.htm.

BAAQMD Website, www.baaqmd.gov, reviewed online 23 February 2006.

CARB. 2001. The Biogenic Emission Inventory Geographic Information System www.ladco.org/biogenics/beigis/presentaton/beigis_coding_demo/index.htm.

CARB, 2000, Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, 28 September.

CARB, 2006, The California Almanac of Emissions and Air Quality.

CARB, 2007, Proposed Early Actions to Mitigate Climate Change in California, 20 April.

CARB Ambient Air Quality Standards Table, 29 November 2005.

CARB, California Counties, website: http://www.arb.ca.gov/ei/maps/statemap/cntymap.htm, July 2, 2008.

CARB, Direct Point Sources, website: http://www.arb.ca.gov/ei/areasrc/pointsources.htm, July 2, 2008.

CARB website http://www.arb.ca.gov.

CARB, http://www.arb.ca.gov/desig/adm/adm.htm, updated February 3, 2006.

California Code of Regulations (CCR), 2004. Title 14, Chapter 3, Guidelines to Implementation of the California Environmental Quality Act, Appendix G, 6 February.

Clean Air Act, Sec. 112. Hazardous Air Pollutants.

Climate Action Team, 2006.

Title 14, CCR, Chapter 3, Guidelines for Implementation of California Environmental Quality Act.

World Climate, http://www.worldclimate.com, Source, averages derived from 1,015 months between 1893 and 1996.

BIOLOGICAL RESOURCES

California Department of Fish and Game. 2004. Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants. The Resources Agency, Sacramento, CA. 204 pp.

California Department of Fish and Game. 2008. California Fish and Game Code. Gould Publications. Binghamton, N.Y.

California Department of Fish and Game. 2008. California Natural Diversity Database. The Resources Agency, Sacramento, CA.

California Department of Fish and Game, Environmental Services Division, A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code, 1994.

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-08b). California Native Plant Society. Sacramento, CA. Accessed on Mon, Jun. 16, 2008 from http://www.cnps.org/inventory.

California Native Plant Society, Inventory of Rare and Endangered Plants (online edition, v7-06d), http://cnps.org/inventory, November 6, 2007.

CNDDB database search of the Mindego Hill, Castle Rock Ridge, Big Basin, La Honda, Woodside, Franklin Point, Cupertino, Mountain View and Palo Alto USGS Quadrangles, February 2008.

Stebbins, R.C 1985 A Field Guide of the Western Retiles and Amphibians 3rd Ed. Houghton Mifflin Co., Boston, Massachusetts, USA.

Zeiner DC., Laudenslayer W.F,Mayer K.E, White M. Ed. 1988. California's wildlife, volume I, amphibians and reptiles. Department of Fish and Game. Sacramento, CA. 272 pp.

Zeiner DC., Laudenslayer W.F,Mayer K.E, White M. Ed. 1988. California's wildlife, volume III, mammals. Department of Fish and Game. Sacramento, CA. 407 pp.

Zeiner DC., Laudenslayer W.F,Mayer K.E, White M. Ed. 1988. California's wildlife, volume II, birds. Department of Fish and Game. Sacramento, CA. 731 pp.

CULTURAL RESOURCES

2001 Foothill College Revised Facilities Master Plan and District Facilities Projects Initial Study, October 26, 2001.

Architectural Resources Group, Foothill College Historic Resource Evaluation: Foothill College Facilities Master Plan, April 2008.

Foothill College, Early History, website: www.foothill.edu/news/fh-history, January 16, 2008.

Foothill-De Anza Community College District, Foothill College Projects Draft Environmental Impact Report, March 2002.

NOISE

California Department of Transportation, 1998.

California Department of Transportation, Transportation Related Earthborne Vibrations, Technical Advisory Number TAV-02-01-R9601, February 20, 2002.

Cowen, Handbook of Environmental Acoustics, 1994.

Foothill-De Anza Community College District, Foothill College Projects Draft Environmental Impact Report, March 2002.

Governor's Office of Planning and Research, General Plan Guidelines, 2003, page 250.

Harris Miller Miller & Hanson Inc., Transit Noise and Vibration Impact Assessment, May 2006.

Los Altos Hills Municipal Code, Section 5-2.02.

United States Environmental Protection Agency, 1971.

TRANSPORTATION/CIRCULATION

Foothill College Master Plan EIR Traffic Impact Analysis Administrative Draft EIR Report, DKS Associates, May 28 2008.

Institute of Transportation Engineers – Trip Generation Manual, 7th Edition 2003. Land Use Code 540 – Junior/Community College – Peak Hour of Generator.

Santa Clara County Congestion Management Program – Traffic LOS Analysis Guidelines, December 1, 2006.

Santa Clara County Congestion Management Program – Transportation Impact Analysis Guidelines. December 1, 2006 (draft).

Santa Clara County Congestion Management Program. 2005 Monitoring & Conformance Report. Table 4.10.

Santa Clara County Congestion Management Program. 2005 Monitoring & Conformance Report. Table 4.11.

SIDRA Intersection.

Transportation Research Board, Special Report 209, Highway Capacity Manual, Chapter 17, Unsignalized Intersections, 2000.

GENERAL IMPACT CATEGORIES

Foothill-De Anza Community College District, Institutional Research & Planning, website: http://research.fhda.edu/factbook/TrendData/Tables/Foothill_Headcount_by_Term.pdf, May 27, 2008.

IX. ACRONYMS

AASHTO	American Association of State Highway Officials
ABAG	Association of Bay Area Governments
ACCM	Asbestos Containing Construction Material
ACM	Asbestos Containing Material
ACOE	United States Army Corps of Engineers
ADA	Americans with Disabilities Act
ADT	average daily traffic
asf	assignable square feet
ASTM	American Society of Testing Methods
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BACM	Best Available Control Measures
BACT	Best Available Control Technologies
BIP	Bond Implementation Plan
Bgs	below ground surface
BMP	best management practices
California Register	California Register of Historical Resources
CalOSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act

CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cf/day	cubic feet per day
cfs	cubic feet per second
CGC	California Government Code
CMA	Congestion Management Agency
CMP	Congestion Management Program
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO	carbon monoxide
Corps	United States Army Corps of Engineers
CSC	California Special Concern Species
CUP	Conditional Use Permit
cu.yd.	cubic yards
CWA	Clean Water Act
DFG	California Department of Fish and Game
DHS	Department of Health Services
DMV	California Department of Motor Vehicles
DOF	Department of Finance
DSA	Division of the State Architect
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
ESA	Federal Endangered Species Act

FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHDAPD	Foothill-De Anza Police Department
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FPPP	Fire Protection and Prevention Plan
FTES	Full Time Equivalent Students
gpd	gallons per day
gpm	gallons per minute
gsf	gross square feet
HCM	Highway Capacity Manual
HOV	high occupancy vehicles
HVAC	heating, ventilation, and air conditioning
I-280	Interstate 280
IS	Initial Study
ISWMO	Integrated Solid Waste Management Office
ITE	Institute of Transportation Engineers
LASD	Los Altos School District
LOS	level of service
mgd	million gallons per day
MMP	mitigation monitoring program

MOU	Memorandum of Understanding
mph	miles per hour
MTC	Metropolitan Transportation Commission
MTS	Metropolitan Transportation System
MVLASD	Mountain View-Los Altos Union High School District
NCRD	Napa Community Resources Department
NCTPA	Napa County Transportation Planning Agency
NESHAPs	National Emissions Standards for Hazardous Air Pollutants
NFD	Napa Fire Department
NHPA	National Historic Preservation Act of 1966
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
O3	Ozone
OHP	California Office of Historic Preservation
OHWM	Ordinary High Water Mark
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PAUSD	Palo Alto Unified School District
PHWD	Purissima Hills Water District
PM	particulate matter

PM10	coarse particulates
PM2.5	fine particulates
PRC	Public Resources Code
PSEC	Physical Sciences and Engineering Center
PSI	pounds per square inch
RACM	Regulated Asbestos Containing Material
ROW	right-of-way
ROWD	Report of Waste Discharge
RTIP	Regional Transportation Improvement Program
RWQCB	Regional Water Quality Control Board
sf	square feet
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SFPUC	San Francisco Public Utilities Commission
SHPO	State Historic Preservation Officer
sq.ft.	square feet
SR	State Route
STIP	State Transportation Improvement Program
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
TCM	Transportation Control Measures
TDA Article 13	Transportation Development Act Article 13
TDM	transportation demand management
TFCA	Transportation Funds for Clean Air

TIA	Transportation Impact Assessment
TLC	Transportation for Livable Communities
TRB	Transportation Research Board
TSM	transportation system management
TTAP	Traffic Engineer Technical Assistance Program
UBC	Uniform Building Code
USFWS	United States Fish and Wildlife Service
VOC	Volatile Organic Compound
USACE	United States Army Corps of Engineers