

Draft

GATEWAY SOUTH

Supplemental Environmental Impact Report

Prepared for
City of Scotts Valley

September 2009



City of Scotts Valley
NOTICE OF AVAILABILITY
of the
Draft SEIR for the
Gateway South Retail Store Project, La Madrona Drive, Scotts Valley, California

To: Public Agencies and Concerned
Citizens/Interested Parties

From: City of Scotts Valley
Community Development Department
One Civic Center Drive
Scotts Valley, CA 95066

Project Applicant: Title Two Investments

Notice: Notice is hereby given that the City of Scotts Valley (“City”), acting as Lead Agency under the California Environmental Quality Act (CEQA), will receive public comment and recommendations on a Draft Supplemental Environmental Impact Report (SEIR) prepared for the Gateway South retail store project. The review period extends for 45 days beginning September 18, 2009 and ends at 5:00 pm on November 4, 2009. All comments regarding the Draft SEIR must be received by this ending date/time.

Project Location: The 17.62-acre project site is located on the west side of State Route 17, on La Madrona Drive, generally southwest of the Mt. Hermon Road/La Madrona Drive exit.

Project Description: The project sponsor, Title Two Investments, proposes to construct a 143,000-square foot retail store and 517 associated parking spaces, including a 57,650 square foot parking deck. The project site is located on the west side of State Route 17, on La Madrona Drive, generally southwest of the Mt. Hermon Road / La Madrona Drive exit, in the City of Scotts Valley in Santa Cruz County. The elevated western portion of the site, which contains mature redwood and native live oak trees, would be retained as open space. The proposed project includes an amendment to the Gateway South Specific Plan to accommodate the proposed building coverage.

Potential Environmental Impacts: Eight significant, unavoidable impacts have been identified related to traffic and transportation. Some potentially significant impacts were identified related to aesthetics, air quality, biological resources, cultural resources, geology and soils, hydrology/water quality, noise, and public services. Each of these non-transportation impacts would be mitigated to a less than significant level if the identified mitigation measures are implemented. The project sponsor has agreed to implementation of the mitigation measures and the Mitigation Monitoring and Reporting Program, therefore, all but the eight significant and unavoidable impacts will be less than significant.

Public Review Period: The public review period for the Draft SEIR extends from September 18, 2009 through November 4, 2009.

Location Where Document Can Be Reviewed: The City has prepared a Draft SEIR for the subject project pursuant to the California Environmental Quality Act. This document is available for review at 1) the Scotts Valley Public Library, 230 Mount Hermon Rd # D, Scotts Valley, CA 95066 2) Scotts Valley, Community Development, One Civic Center Drive, Scotts Valley, CA 95066, and 3) on the City’s website at www.scottsvalley.org/.

Comments on the Draft Supplemental Environmental Impact Report must be received, *in writing*,
by the end of the review period, November 4, 2009, at 5:00 p.m.
Submit comments to Taylor Bateman, Senior Planner, City of Scotts Valley, Community Development Department
One Civic Center Drive, Scotts Valley, California 95066
or tbateman@scottsvalley.org

Phone: (831) 440-5630

Draft

GATEWAY SOUTH

Supplemental Environmental Impact Report

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City of Scotts Valley

September 2009

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CHAPTER 1

Introduction and Background

A. Project Sponsor and the Project

The project sponsor, Title Two Investment Corporation, proposes the development of a 143,000 square foot retail store and 517 associated parking spaces, including 57,650 square feet of covered parking, in the City of Scotts Valley (City). The approximately 17.62-acre project site is located on the west side of State Route (SR) 17 (commonly referred to as Highway 17), on La Madrona Drive, generally southwest of the Mt. Hermon Road / La Madrona Drive exit, in the City of Scotts Valley in Santa Cruz County. The elevated western portion of the site, which contains mature redwood and native live oak trees, would be retained as open space.

The proposed project would include a Gateway South Specific Plan Amendment as it would be more intensive than the land uses proposed in the Specific Plan and evaluated in the Specific Plan Final EIR (Scotts Valley, 1995).

B. Environmental Review Context

Previous Planning and Environmental Review

The project site is located in the Gateway South Specific Plan Area, for which an Environmental Impact Report (EIR) was prepared in 1995. In 2005, a Supplemental EIR (SEIR) was prepared for an office building to be located on the site, which was never built.

1995 Final Specific Plan

The Gateway South Specific Plan was adopted in 1995 and was last amended in 2007 (the commercial square footage). The City determined the need for a Specific Plan for the area during the preparation of the 1994 revision of the General Plan. The Specific Plan was authored to emphasize the gateway to Scotts Valley. The plan discusses commercial and office development, housing opportunities, and the preservation of the hillside, while minimizing access points on Mt. Hermon Road on the under developed land.

The proposed project includes a Specific Plan Amendment because it would be more intensive than the land uses proposed in the Specific Plan and evaluated in the Specific Plan Final EIR (Scotts Valley, 1995). The Specific Plan states that the maximum total building area shall be 151,000 square feet (sq.ft.) in Planning Area B, which includes the project site, and that any

proposal to exceed this limitation shall require a Specific Plan amendment. Buildings existing in Planning Area B, including the Hilton Hotel and the retail center, total approximately 62,000 sq.ft. The proposed 200,650 sq.ft. of coverage would exceed the Specific Plan allowable buildable square footage by approximately 111,650 sq.ft.

Supplemental EIR Gateway South Office Building and Fire Station

In 2005, the City adopted a SEIR for the proposed Gateway South Office Building and Fire Station. Although never constructed, the SEIR evaluated the construction of a 136,000 sq.ft. office building and a 12,000 sq.ft. fire station on two parcels.¹ The office building component of the project would have included a two-story 136,000 building on approximately 6.6 acres of the lower, flatter portions of the site. The remaining 11 acres would have been maintained as natural or landscaped natural open space, including the forested upper slopes on the western side of the property

The building would have been approximately 460 feet long, 190 feet wide, and approximately 38 feet tall to the top of the roof measured from finished grade. Parking areas would have surrounded the building on all sides, providing parking for approximately 550 vehicles.

Relationship of Project to the 2005 SEIR Alternatives and Analysis

The 2005 SEIR addresses the same property as this SEIR, with a very similar construction footprint as the proposed project. The exception to the footprint similarities of the two projects relates to the “teardrop” parcel. The “teardrop” parcel is a small, triangle shaped parcel on the east side of La Madrona Drive which was proposed for development as a fire station in the 2005 SEIR. There is no development planned for the “teardrop” parcel in the current project proposal.

In all other respects, the footprint of the office building with surrounding parking lot and landscaping discussed in the 2005 SEIR is similar to the footprint of the proposed project, including the parking areas and landscaping, discussed in this SEIR.

CEQA Context

Scoping and Assessing the Need for Further Environmental Review

Request for Environmental Review, and Subsequent Notice of Preparation (NOP) and Scoping

In 2007, Title Two Investment Corporation submitted to the City of Scotts Valley a request for environmental review of the proposed Gateway South Project and indicated the retail development would be for a Target store. The City determined, for the reasons described above, that the project should be analyzed pursuant to Section 21166 of the PRC and CEQA Guidelines 15162 and 15163. This determination was based on the City’s review of the

¹ The project site is the parcel on which the office building would have been constructed. The fire station would have been constructed on the “tear-drop” shaped parcel on the east side of La Madrona Drive.

applicant's request, combined with the existence of a previously-certified environmental impact report prepared for redevelopment alternatives considered for the property, and provisions of the California Environmental Quality Act (CEQA) and CEQA Guidelines. The City determined the project would trigger supplemental environmental review pursuant to PRC Section 21166 and CEQA Guidelines 15162 and 15163.

On April 1, 2008, the City published a Notice of Preparation (NOP) to prepare an SEIR for the Gateway South Project which was sent to governmental agencies. The City also mailed the NOP to organizations and persons interested in the Gateway South Project. The NOP invited comment on the Initial Study during a 30-day public review and comment period and specifically requested that agencies with regulatory authority over any aspect of the project describe that authority and identify the relevant environmental issues that should be addressed in this SEIR. (The NOP is provided as **Appendix A** to this SEIR.)

The City held a public scoping session on April 14, 2008, during the 30-day public review and comment period, to solicit comments. All comments received in response to the NOP are provided in **Appendix B** to this SEIR. The analysis presented in this SEIR addresses all comments received that pertain to the potential environmental effects of the project under CEQA.

Standard for Determining if Further Environmental Review is Required

Since an SEIR already has been certified for the development of the project site (the 2005 SEIR), the standard for determining whether further CEQA review is required is established by PRC Section 21166 and CEQA Guidelines Section 15162. PRC Section 21166 applies to the proposed project because in-depth CEQA review has already occurred for a conceptual project on the project site, and the time for challenging the sufficiency of the 2005 SEIR has passed. Repeating a substantial portion of the EIR process, such as preparation and public review of a subsequent or supplemental environmental impact report, is warranted if and to the extent that the project meets any of the following stated conditions:

- 1) **Substantial** changes to the project or **substantial** changes to circumstances, or new information of **substantial** importance; which
- 2) require **major revisions** to the EIR; **and**
- 3) result in **new significant** environmental effects or a **substantial increase** in the severity of previously identified significant effects. (PRC Section 21166; CEQA Guidelines Sections 15162 and 15163.)

The findings for each of these standards must be based on substantial evidence (CEQA Guidelines Sections 15162). Further, the findings in PRC Section 21166 provide the basis for focusing the scope of the issues to be addressed in a subsequent or supplemental EIR. As a result of the scoping session, the City determined that it was appropriate to prepare an SEIR for the potential effects of the proposed project and to compare potential effects to the effects identified previously for the project analyzed in the 2005 SEIR.

This SEIR assesses whether the proposed project would or would not have significant impacts, based on a comparison of the proposed project to current conditions. Further, this SEIR assesses whether the proposed project would or would not have significant impacts in addition to those identified for the project analyzed in the 2005 SEIR.

Pursuant to PRC Section 21166 and CEQA Guidelines Section 15162, this SEIR also considers whether substantial changes to circumstances or new information of substantial importance exist that could result in the proposed project having a new significant impact not previously identified in the 2005 SEIR.

Determining the Need for an Initial Study Analysis

The City of Scotts Valley determined that CEQA standards required preparation of a supplemental EIR in order to make the previous EIR adequate for the proposed project (CEQA Guidelines Section 15163[b]). This determination was based on the relatively recent certification of the 2005 SEIR. Environmental conditions were determined not to have substantially changed since the adoption of the 2005 SEIR and thus issues of concern were readily apparent. Issues that were determined to be less than significant under previous environmental review for the site are addressed in Section 4.I, *Other Topics*, of this SEIR.

Comparison of Environmental Impacts

The comparison of potential environmental effects that may result from the proposed retail project to the effects identified previously for the office building (as well as other changes in circumstances and new information relevant to the analysis, discussed below) is intended to determine if circumstances exist that could result in the proposed project having a new significant environmental impact not previously identified in the 2005 SEIR.

Comparison of Relevant Circumstances and Information

Overall circumstances and conditions under which this analysis for the proposed retail project is being undertaken are not substantially different from those that existed when the analysis for the office development when the 2005 SEIR was undertaken. The vicinity surrounding the project site has not undergone substantial physical changes, (for example, any substantial new development or changes in infrastructure, circulation, public facilities, or natural resources), since preparation of the 2005 SEIR. There are no notable changes in physical setting at the project site or vicinity since the adoption of the 2005 SEIR. Relevant changes in circumstances and conditions pertinent to the proposed project and relevant to this environmental review under CEQA consist of:

- 1) new or amended applicable plans and policies adopted after preparation of the 2005 SEIR, including several elements of the General Plan and the 2007 amendment to the Gateway South Specific Plan;
- 2) new or revised regulatory standards or analysis methodologies and models, such as those used to assess air quality emissions, climate change, and potentially hazardous conditions onsite;

- 3) updated list of approved, pending, and foreseeable projects used in cumulative analysis; and
- 4) applicable status lists for plant and wildlife species.

In terms of item 3 in the above list, this SEIR does consider, in its cumulative analyses, newly approved projects and pending and foreseeable projects that were not included in the cumulative analyses in the 2005 EIR. Notably, since the 2005 EIR was certified, the City has approved the Town Center Specific Plan, for a 59-acre area on Mount Hermon Road. The Specific Plan calls for development of 310,000 square feet of retail and commercial uses (including a new Scotts Valley Library) and 300 dwelling units in a mixed-use configuration that would also include about 1,475 parking spaces and about 21,850 square feet of open space. In addition, the City has approved a Holiday Inn Express hotel of up to 119 rooms at 5030 Scotts Valley Drive. Each of these projects, as well as other approved, pending, and foreseeable projects, has been considered as part of the cumulative analysis in this SEIR.

Scope of SEIR

Topics Addressed in this SEIR

Pursuant to PRC Section 21166 and CEQA Guidelines Sections 15162 and 15163, the City concluded that additional environmental review in an SEIR shall be conducted for the following topics:

- Traffic and Circulation;
- Aesthetics and Visual Quality;
- Land Use and Planning;
- Biological Resources;
- Geology and Soils;
- Hydrology and Water Quality;
- Noise;
- Air Quality and Climate Change; and
- Public Service and Recreation.

The environmental analysis for each of the topics listed above is presented in Chapter 4 of this document.

Topics Not Addressed In Detail in this SEIR Based on Previous Environmental Review of the Site

The information and analysis presented in the 2005 SEIR provides substantial evidence for the conclusion, for all the issues listed below (i.e., those *not* addressed in detail this SEIR), that 1) the analyses in the 2005 SEIR and the 1995 Specific Plan EIR satisfy the requirements of CEQA, and 2) CEQA standards triggering preparation of further environmental review do not exist for those issues. Topics not addressed in this SEIR in detail are listed below by impact determination category identified in Appendix G, the Environmental Checklist Form. These topics are, however outlined for full disclosure of the environmental determination, in Section 4.I, *Other Topics*, of this SEIR.

- Agricultural Resources
- Cultural Resources
- Hazards and Hazardous Materials
- Mineral Resources
- Population and Housing
- Utilities and Service Systems
- Urban Decay

C. Supplemental EIR

Use and Availability of this SEIR

Consistent with CEQA, this SEIR is a public information document, and its key purpose is for use by governmental agencies and the public to identify and evaluate potential environmental consequences of a proposed project, to recommend mitigation measures to lessen or eliminate adverse impacts, and to examine feasible alternatives to the project. The City will review and consider the information contained in this SEIR prior to taking action on the project.

Copies of this Draft SEIR are available at the City of Scotts Valley, Community Development Department, at One Civic Center Drive, Scotts Valley, CA 95066, as well as other locations noted on the Notice of Availability (NOA). The Draft SEIR is available for public review for the period identified on the NOA located inside the front cover of this document. During this review period, written comments on the Draft SEIR may be submitted to the City at the address indicated on the notice. Responses to all comments received on the environmental analysis in this Draft SEIR and submitted within the specified review period will be included in the Final SEIR.

Organization of the Draft SEIR

This Draft SEIR document is organized as follows:

Chapter 2, Summary – This chapter summarizes the project and the conclusions of this Draft SEIR document. A summary table is included and organized to allow the reader to easily reference the analysis of potentially significant effects, proposed mitigation measures, and any residual environmental impacts after implementation of mitigation measures – for the 2005 office development and the proposed project. A summary of the project alternatives and the environmentally superior alternative is also provided. The Summary Chapter also identifies areas of controversy regarding the project that are known to the City as of publication of this Draft SEIR.

Chapter 3, Project Description – This chapter describes the proposed project in detail. Specifically, with text and graphics, this chapter describes the project site, project characteristics, and phasing, and the objectives for the project. City-required project approvals identified as of publication of this Draft SEIR are discussed, and other agencies that may have review or approval responsibilities for any aspect of the project are identified. This Chapter will also identify changes to the project description occurring since the Notice of Preparation.

Chapter 4, Environmental Setting, Impacts, and Mitigation Measures – This chapter includes the detailed environmental analysis. The chapter includes an introductory discussion of the approach to the environmental analysis (analysis years, cumulative scenario, mitigation measures, significance thresholds and recent changes thereto, etc.). This chapter also describes the office development analyzed in the 2005 SEIR as compared to the proposed project.

The body of the chapter is organized by topical “Sections” (e.g., “4.A. *Transportation and Circulation*”) comprised of a *Setting* and an *Impacts and Mitigation Measures* discussion. Specifically presented are existing conditions and regulatory framework, the environmental impacts (project and cumulative impacts) that could result from the project, and the mitigation measures, if any, that would reduce or eliminate the identified adverse impacts. The CEQA thresholds and criteria used to assess the significance of adverse environmental effects are identified, and the significance of the impact both prior to and following implementation of mitigation measures is reported.

Chapter 5, Alternatives – This chapter evaluates a range of alternatives to the proposed project that are intended to reduce or avoid significant environmental effects identified in Chapter 4. A summary table is provided that presents the impacts identified for each alternative relative to those identified for the project.

Chapter 6, Other Statutory Sections – This chapter summarizes the significant, unavoidable impacts and cumulative impacts identified throughout Chapters 4.A through 4.J and describes the project’s potential for inducing growth. The chapter also summarizes the findings for environmental topics determined to have “no impact” or a less-than-significant impact.

Chapter 7, Report Preparation – This chapter identifies the authors of this SEIR. Persons and documents consulted during preparation of the analysis herein are listed at the end of each analysis section (i.e., Sections 4.A through 4.J) and in the appendices to the document.

Appendices – A series of appendices to the document are provided and include the NOP, including responses received to the NOP, and supporting background information most relevant to the impact analyses provided in this document.

CHAPTER 2

Summary

A. Project Description

The proposed Gateway South retail store project would entail the construction of a 143,000-square foot retail store and 517 associated parking spaces, including 57,650 square feet of covered parking, in the City of Scotts Valley. The approximately 17.62-acre project site is located on the west side of State Route (SR) 17 (commonly referred to as Highway 17), on La Madrona Drive, generally southwest of the Mt. Hermon Road / La Madrona Drive exit, in the City of Scotts Valley in Santa Cruz County. The elevated western portion of the site, which contains mature redwood and native live oak trees, would be retained as open space. The project would also include an amendment to the Gateway South Specific Plan to accommodate the proposed building coverage.

B. Relationship to Previous Environmental Documents

The project site is located in the Gateway South Specific Plan Area, for which an Environmental Impact Report (EIR) was prepared in 1995. In 2005, a Supplemental EIR (SEIR) was prepared for an office building to be located on the site, which was never built.

The 2005 SEIR addresses the same property as this SEIR, with a very similar construction footprint as the proposed project. The exception to the footprint similarities of the two projects relates to the “teardrop” parcel. The “teardrop” parcel is a small, triangle shaped parcel on the east side of La Madrona Drive which was proposed for development as a fire station in the 2005 SEIR. There is no development planned for the “teardrop” parcel in the current project proposal.

In all other respects, the footprint of the office building with surrounding parking lot and landscaping discussed in the 2005 SEIR is equivalent to the footprint of the proposed project, including the parking areas and landscaping, discussed in this SEIR.

C. Project Objectives

CEQA Guidelines Section 15124(b) requires that the project description of an EIR contain a statement of objectives for the proposed project. The project sponsor, Title Two Investment Corporation, seeks to develop a retail store in the City of Scotts Valley in Santa Cruz County. The objectives for the project include the following:

- Construct a locally and regionally serving general merchandise store (Target) that would serve Scotts Valley and nearby communities, providing much needed retail goods and services.
- Develop a viable retail project (Target) which increases the tax base of the City by contributing a positive generation of tax revenue to the City.
- Promote economic growth by creating new employment opportunities within the City.
- Provide convenient access to the community and to the traveling public with a location immediately adjacent to Highway 17, while minimizing impacts on the local street system.
- Develop an aesthetically pleasing site plan and architectural building design that exemplifies the City’s planning and design criteria.

D. Environmental Impacts and Mitigation Measures

Potentially significant environmental impacts of the proposed project are summarized in **Table 2-1**. This table lists impacts and mitigation measures in three major categories: significant impacts that would remain significant even with mitigation (significant and unavoidable); significant impacts that could be mitigated to a less than significant level (significant but mitigable); and impacts that would not be significant (less than significant). For each significant impact, the table includes a summary of mitigation measure(s) and an indication of level of significance after implementation of mitigation measures. A complete discussion of each impact and associated mitigation measures are provided in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*.

E. Alternatives

Chapter 5 of this EIR analyzes a range of reasonable alternatives to the proposed project, including the No Project Alternative (required by the CEQA for all EIRs). Per CEQA Guidelines Section 15126.6[f] the Lead Agency, the City of Scotts Valley, identified the following reasonable range of project alternatives to be addressed in this EIR:

- No Project Alternative (Existing Conditions, No Change)
- Offsite Alternative
- Two-Story Alternative

The Alternatives discussion of this SEIR was prepared in accordance with Section 15126[d] of the CEQA Guidelines and focuses on alternatives that are capable of eliminating or reducing significant adverse effects associated with the proposed project while feasibly attaining most of the basic objectives. This SEIR identifies the Off-Site Alternative as the “environmentally superior” alternative, as it would eliminate impacts to transportation as these impacts could be reduced to a less-than-significant level with mitigation.

F. Issues of Concern

Issues of concern regarding the proposed project include potential impacts to State Route 17, especially the on- and off-ramps in Scotts Valley, visual resources, as well as other issues raised during the public review of the NOP. Comment letters on the NOP were received from Caltrans, Scotts Valley Water District, Santa Cruz Regional Transportation Commission, Association of Monterey Bay Area Governments, Monterey Bay Unified Pollution Control District, the U.S. Department of the Interior, and many residents of Scotts Valley. Comments identifying issues of concern in these letters included traffic volume and circulation, parking, description of sensitive plant and animal species, landscaping/aesthetics, analysis of noise and light effects, increase in pollution/impacts to public health from operation, neighborhood context, and the project's contribution to cumulative impacts related to development. These issues are fully addressed in the analyses sections in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, of this document.

**TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
A. Transportation and Circulation			
<p>TRAN-1: Project construction would result in temporary increases in truck traffic and construction worker traffic. (Significant)</p>	<p>TRAN-1: The construction contractor(s) shall develop a construction management plan for review and approval by the City of Scotts Valley. The plan shall include at least the following items and requirements to reduce, to the maximum extent feasible and traffic congestion during construction:</p> <ul style="list-style-type: none"> • A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes • Identification of haul routes for movement of construction vehicles that would minimize impacts on motor vehicular, bicycle and pedestrian traffic, circulation and safety, and specifically to minimize impacts to the greatest extent possible on streets in the project area • Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur • Provisions for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project sponsor 	Less than Significant	New Impact, but Less than Significant with Mitigation
<p>TRAN-2: Operation of the proposed project would increase traffic at intersections in the project vicinity under existing plus project conditions. (Significant at intersections described in Impacts TRAN-2a to TRAN-2d)</p>			
<p>TRAN-2a: The addition of project-generated traffic would degrade operations at the signalized intersection of Mt. Hermon Road / Scotts Valley Drive from an acceptable LOS D to an unacceptable LOS E during the PM peak hour. (Significant)</p>	<p>TRAN-2a: At the Mt. Hermon Road / Scotts Valley Drive intersection, add a second westbound (Mt. Hermon Road) left-turn lane; restripe the northbound approach (Whispering Pines Drive) to provide separate left-turn, through, and right-turn lanes; and modify the signal phasing configuration from split phasing to protected left-turn phasing for the northbound and southbound approaches (Whispering Pines Drive – Scotts Valley Drive), and add westbound (Mt. Hermon Road) and northbound (Whispering Pines Drive) right-turn overlap phases.</p> <p>After implementation of Mitigation Measure TRAN-2a, the intersection would operate at an acceptable LOS D during all three peak hours (see Table 4.A-7).</p>	Less than Significant	New Impact, but Less than Significant with Mitigation

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
A. Transportation and Circulation (cont.)			
TRAN-2b: The addition of project-generated traffic would degrade operations at the signalized intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp from an acceptable LOS C to an unacceptable LOS D during the Saturday peak hour. (Significant)	TRAN-2b: At the Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp intersection, add an eastbound right-turn overlap phase on Mt. Hermon Road. After implementation of Mitigation Measure TRAN-2b, the intersection would operate at an acceptable LOS C during all three peak hours (see Table 4.A-7).	Less than Significant	New Impact, but Less than Significant with Mitigation
TRAN-2c: The addition of project-generated traffic would degrade operations on the eastbound approach at the unsignalized intersection of La Madrona Drive / Alenitas Road from an acceptable LOS C or better to an unacceptable LOS D or worse during the AM, PM and Saturday peak hours. (Significant)		Significant and Unavoidable	New Significant Impact, Unmitigable
TRAN-2d: The addition of project-generated traffic would degrade operations on the southbound approach at the unsignalized intersection of Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps from an acceptable LOS C to an unacceptable LOS D during the PM peak hour. (Significant)		Significant and Unavoidable	New Significant Impact, Unmitigable
TRAN-3: Operation of the proposed project would increase traffic at the SR 17 interchange with Mt. Hermon Road under existing plus project conditions. (Less than Significant)	None required.		No New Impact or Changes
TRAN-4: Operation of the proposed project would require adequate provision for site access. (Less than Significant)	None required.		No New Impact or Changes
TRAN-5: Operation of the proposed project would require additional queue storage. (Significant at the Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp intersection, described in Impacts TRAN-5a and TRAN-5b)			
TRAN-5a: The addition of project-generated traffic would substantially increase the queue of vehicles in the northbound left-turn lane at the intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp. (Significant)	TRAN-5a: To accommodate the project-generated increase in queuing length for the northbound left turn, the existing turn pockets would need to be lengthened to approximately 250 feet, which would create a two-lane approach on La Madrona Drive between Alenitas Road and Mt. Hermon Road.	Less than Significant	New Impact, but Less than Significant with Mitigation
TRAN-5b: The addition of project-generated traffic would substantially increase the queue of vehicles in the westbound left-turn lane at the intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp. (Significant)		Significant and Unavoidable	New Significant Impact, Unmitigable

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
A. Transportation and Circulation (cont.)			
TRAN-6: Operation of the proposed project would require adequate provision for onsite parking. (Less than Significant)	TRAN-6: Prior to the issuance or grading or building permits, the project applicant would require the store operator to prepare a parking plan that directs store employees to park off-site during the peak holiday shopping period. The plan would be submitted to the Community Development Director for review and approval. This plan may require a use of a temporary shuttle service to transport employees, or an agreement with adjacent property owners to provide available spaces.	Less than Significant	New Impact, but Less than Significant with Mitigation
TRAN-7: Operation of the proposed project would increase pedestrian, bicycle and transit traffic in the project area. (Less than Significant)	None required.		No New Impact or Changes
TRAN-8: Operation of the proposed project would increase traffic at intersections in the project vicinity under Cumulative (2018) Plus Project conditions. (Significant at intersections described in Impacts TRAN-6a, TRAN-8a to TRAN-8e)			
TRAN-8a: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / Scotts Valley Drive would degrade the prevailing unacceptable operations during the AM, PM and Saturday peak hours. (Significant)	TRAN-8a: At the Mt. Hermon Road / Scotts Valley Drive intersection, add a second westbound (Mt. Hermon Road) left-turn lane; restripe the northbound approach (Whispering Pines Drive) to provide separate left-turn, through, and right-turn lanes; and modify the signal phasing configuration from split phasing to protected left-turn phasing for the northbound and southbound approaches (Whispering Pines Drive – Scotts Valley Drive), and add westbound (Mt. Hermon Road) and northbound (Whispering Pines Drive) right-turn overlap phases.	Significant and Unavoidable	New Significant Impact, Unmitigable
TRAN-8b: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp would degrade the prevailing acceptable operations during the PM and Saturday peak hours. (Significant)	TRAN-8b: At the Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp intersection, add a second southbound right-turn lane to the SR 17 off-ramp, and add an eastbound right-turn overlap phase on Mt. Hermon Road. The project sponsor would be required to fund its fair share of the cost of this measure, as determined in the Mt. Hermon Road Corridor Traffic Mitigations study.	Significant and Unavoidable	New Significant Impact, Unmitigable
TRAN-8c: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / Kings Village Road would degrade the prevailing acceptable operations during the PM and Saturday peak hours. (Significant)	TRAN-8c: At the Mt. Hermon Road / Kings Village Road intersection, restripe the southbound (Kings Village Road) approach to provide a left-turn lane and a shared through / right-turn lane.	Significant and Unavoidable	New Significant Impact, Unmitigable

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
A. Transportation and Circulation (cont.)			
TRAN-8d: The addition of project-generated traffic to Cumulative Baseline volumes on the eastbound approach at the unsignalized intersection of La Madrona Drive / Altemitas Road would degrade the prevailing acceptable LOS during the AM, PM and Saturday peak hours. (Significant)		Significant and Unavoidable	New Significant Impact, Unmitigable
TRAN-8e: The addition of project-generated traffic to Cumulative Baseline volumes on the southbound approach at the unsignalized intersection of Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps would worsen the prevailing unacceptable LOS during AM, PM and Saturday peak hours. (Significant)		Significant and Unavoidable	New Significant Impact, Unmitigable
TRAN-9: Operation of the proposed project would increase traffic at the SR 17 interchange with Mt. Hermon Road under existing plus project conditions. (Less than Significant)	None required.		No New Impact or Changes
B. Aesthetics			
AES-1: Construction of the project would create temporary aesthetic nuisances associated with project construction and grading activities. (Significant)	<p>AES-1: The project shall incorporate into all construction contracts and ensure implementation of the following measures:</p> <ul style="list-style-type: none"> • To the extent feasible, during all site preparation and exterior construction activities, the project sponsor shall place and maintain a screened security fence around the perimeter of the project site and removed upon completion of construction activities. The City shall determine the height, material and placement of such fencing, as appropriate and effective given the relative change in elevation and viewpoints to the site. • To the extent feasible, construction staging areas shall be located in the interior of the project site, away from the property boundary and remain clear of all trash, weeds and debris etc. Construction staging areas may include other areas of the project site when necessary, but shall be located away from adjacent properties, La Madrona Drive and Silverwood Drive to minimize visibility from public view to the extent feasible. • Construction activity shall be allowed in conformance with the noise ordinance which states that construction activity shall be limited to the hours between 8:00 a.m. and 6:00 p.m., Monday through Friday and 9:00 a.m. through 5:00 p.m. on Saturday. No construction activity is allowed on Sunday. 	Less than Significant	No New Impact, but New or Updated Mitigation Measure Identified

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
B. Aesthetics (cont.)			
AES-2: The proposed project would alter views of and across the project site, but would not have a substantial adverse effect on a scenic vista or substantially damage scenic resources. (Less than Significant)	None required.		No New Impact or Changes
AES-3: Implementation of the proposed project would alter, but would not substantially degrade the existing visual character or quality of the site and its surroundings. (Less than Significant)	None required.		No New Impact or Changes
AES-4: Implementation of the proposed project would result in an increase in light and glare at the project site. (Significant)	<p>AES-4a: The project sponsor shall install cut-off fixtures on all night lighting at the time the lighting is installed on the site, to substantially reduce light and glare.</p> <p>AES-4b: The project sponsor shall design and install onsite lighting to minimize spill light at off-site locations and prevent over-illumination of the site. The proposed lighting shall be designed to shield the lighting with reflectors that aim the light downward to illuminate the area around the fixture.</p> <p>AES-4c: The project sponsor shall require that all exterior light (including all exterior building signage), with the exclusion of required security lighting, be turned off one-half hour after the store's closing at 10:00 p.m.</p>	Less than Significant	No New Impact, but New or Updated Mitigation Measure Identified
AES-5: Development proposed as part of the project, when combined with past, present and other foreseeable development in the vicinity, would not result in cumulative impacts to visual resources. (Less than Significant)	None required.		No New Impact or Changes
C. Land Use and Planning			
LU-1: The proposed project would not physically divide an established community. (Less than Significant)	None required.		No New Impact or Changes
LU-2: The proposed project would be consistent with applicable land use policies and zoning regulations for the City of Scotts Valley. (Less than Significant)	None required.		No New Impact or Changes
LU-3: The proposed project would conflict with the applicable land use policy contained in the Gateway South Specific Plan; however, the proposed project includes a Specific Plan Amendment that, if approved, would eliminate the inconsistency. (Less than Significant)	None required.		No New Impact or Changes

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
C. Land Use and Planning (cont.)			
LU-4: The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. (No Impact)	None required.		No New Impact or Changes
LU-5: The proposed project, together with other developments in the immediate vicinity, would not contribute to potential cumulative land use impacts. (Less than Significant)	None required.		No New Impact or Changes
D. Biological Resources			
BIO-1: The proposed project would remove (0.96 acres) of freshwater seep wetland habitat. (Significant)	<p>BIO-1a: The project sponsor shall submit a complete, accurate, and current wetland delineation report to the RWQCB for consultation and issuance of WDRs, or a waiver, which must be obtained prior to any ground-disturbing or construction activities that would affect the freshwater seep wetlands identified in the wetland delineation.</p> <p>BIO-1b: To the extent feasible, the project sponsor would undertake final project design that would avoid and minimize effects to freshwater seeps. Areas that are avoided would be protected from construction activities through implementation of Best Management Practices (BMPs), as described in Mitigation Measure BIO-1d below.</p> <p>BIO-1c: To compensate for the wetlands that would be permanently eliminated by the development of the proposed project, the project sponsor shall undertake one of the following, in agreement with the RWQCB and all provisions in the WDRs.</p> <ul style="list-style-type: none"> • Acquisition of equivalent wetlands at a nearby site at a rate of 2:1. • Purchase of mitigation credits at a mitigation bank such as the Pajaro River mitigation bank. • An alternative to be agreed upon with the RWQCB. <p>BIO-1d: During construction, the project sponsor and construction contractor(s) shall implement Standard Best Management Practices (BMPs) to Maintain Water Quality and Control Erosion and Sedimentation to protect wetlands and drainages, as required by compliance with the General NPDES Permit for Construction Activities and established by Mitigation Measure HYD-1. BMPs would include, but would not be limited to:</p> <ul style="list-style-type: none"> • Installing silt fencing between jurisdictional waters and project related activities, 	Less than Significant	New Impact, but Less than Significant with Mitigation

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
D. Biological Resources (cont.)			
BIO-1 (cont.)	<ul style="list-style-type: none"> • Locating fueling stations away from potentially jurisdictional features, and • Isolating construction work areas from any identified jurisdictional features. 		
BIO-2: Removal of trees and other vegetation could result in the loss of nesting or roosting habitat for special-status raptors and other bird species that are protected by California Fish and Game Code 3503 and the Migratory Bird Treaty Act. (Significant)	<p>BIO-2a: To the extent feasible, the project sponsor and the City shall ensure that tree removal and grading activities avoid the active nesting and breeding season (from March 1 through August 15) to avoid impacts to nesting raptors and other special-status birds (identified in Table 4.D-1). If seasonal avoidance is not feasible, Mitigation Measure BIO-2.2 shall be implemented to minimize impacts to special-status nesting birds.</p> <p>BIO-2b: Prior to any potential nest-disturbing activities during the period from March 1 through August 15, the project sponsor shall retain a qualified biologist to conduct a pre-construction survey for special-status nesting birds. The survey shall be conducted no more than one week prior to the start of work activities and would cover all affected undisturbed areas including a 500-foot buffer area around the active project area, staging areas, and access road improvement areas where substantial ground disturbance or vegetation clearing is required.</p> <ul style="list-style-type: none"> • If pre-construction surveys indicate that no nests of special-status birds are present or that nests are inactive or potential habitat is unoccupied, no further mitigation is required. • Additional pre-construction surveys shall be conducted for each new phase of project implementation that occurs during the nesting season, no more than two weeks prior to construction (e.g., prior to tree removal, and again prior to major grading). • If any active nests are found, an appropriate nest buffer area shall be established during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zones and types of construction activities restricted within them will be determined through consultation with the CDFG, taking into account factors such as the following: <ul style="list-style-type: none"> – Noise and human disturbance levels at the project site and the nesting site at the time of the survey and the noise and disturbance expected during the construction activity; 	Less than Significant	New Impact, but Less than Significant with Mitigation

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
D. Biological Resources (cont.)			
BIO-2 (cont.)	<ul style="list-style-type: none"> - Distance and amount of vegetation or other screening between the project site and the nest; and - Sensitivity of individual nesting species and behaviors of the nesting birds. <p>The following guidelines for protection zones shall be used: for special-status passerine birds, a 50- to 100-foot protection zone shall be established around active nests; for raptors, a 300-foot protection zone and for golden eagles a 500-foot protection zone shall be established around active nests. These protection zones may be modified on a site-specific basis as determined by the qualified biologist or in coordination with CDFG.</p> <ul style="list-style-type: none"> • Construction activities commencing during the non-breeding season and continuing into the breeding season do not require surveys (as it is assumed that any breeding birds taking up nests would be acclimated to project-related activities already under way). Nests initiated during construction activities would be presumed to be unaffected by construction, and no buffer zone around such nests would be necessary. However, if trees and shrubs are to be removed during the breeding season, they will be surveyed for nests prior to their removal, as described above. • The noise control procedures for maximum noise, equipment, and operations identified in Section 4.G, <i>Noise</i>, of this EIR shall be implemented. 		
BIO-3: Removal of native vegetation including woodlands, conifer forest, and open grasslands would reduce the available forage habitat for raptors and other birds. (Less than Significant)	None required.		No New Impact or Changes
BIO-4: Implementation of the proposed project has the potential to result in adverse impacts to native oak or other native trees as defined by the City of Scotts Valley Tree Protection Regulations (Chapter 17.44.080). (Significant)	<p>BIO-4: <i>Provide Protection for Sensitive Tree Resources Adjacent to Construction Activities.</i> Sensitive tree resources adjacent to construction activities may require protection. Where feasible, buffer zones shall include a minimum one-foot-wide buffer zone outside the drip-line for oaks or native trees. The locations of these resources shall be clearly identified on the construction drawings and marked in the field by a qualified arborist or other appropriate professional. Fencing or other barriers shall remain in place until all construction and restoration work that involves heavy equipment is complete. Construction vehicles, equipment, or materials shall not be parked or</p>	Less than Significant	New Impact, but Less than Significant with Mitigation

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
D. Biological Resources (cont.)			
BIO-4 (cont.)	<p>stored within the fenced area. No dumping of oils or chemicals shall be permitted within the drip-line of any retained tree. No signs, ropes, cables, or other items shall be attached to the protected trees. Grading, filling, trenching, paving, irrigation, and landscaping within the drip-lines of oak trees shall be prohibited unless specifically authorized by the City and a certified arborist. Hand-digging shall be done in the vicinity of major trees to prevent root cutting and mangling by heavy equipment. Major roots three inches or greater encountered within the tree's drip-line during excavation shall not be cut and any exposed roots shall be kept moist and covered with earth as soon as possible. Severed roots one to two inches in diameter shall be cut cleanly, trimmed, and covered as soon as possible. Support roots inside the drip-line shall be protected.</p> <p>In addition, the project sponsor shall conduct annual monitoring for three years following completion of construction to ensure the continued survival of retained native trees and newly planted trees. The project sponsor or designated professional shall contact the City Arborist (or other applicable City official) to discuss success criteria and required length of monitoring prior to conducting the first annual survey.</p>		
BIO-5: Construction of the proposed project has the potential to affect roosting or breeding special-status bats in and near the project site. (Significant)	<p>BIO-5: The project sponsor shall implement protection measures to minimize impacts to special-status bats during construction. Concurrent with breeding bird surveys (Mitigation Measure BIO-2.2) a qualified biologist shall conduct preconstruction surveys for special-status bats within suitable open structures and large trees (e.g., greater than 24 inch diameter at breast height) on the site. If any bat species listed above in Table 4.D-1 are identified onsite, the biologist shall evaluate whether breeding adults or juveniles are present. If present, a suitably sized buffer (e.g., 100 to 150 feet) shall be placed around the roost if it appears that grading, tree removal or other project activities may cause abandonment. If it appears that demolition activities may cause nest abandonment, demolition activities must cease until juvenile bats are self-sufficient and would not be directly impacted by project activities.</p>	Less than Significant	New Impact, but Less than Significant with Mitigation
BIO-6: The proposed project, when combined with development in Scotts Valley and in the surrounding area, would contribute to a reduction of open space and, consequently, habitat for native plants and wildlife, including special-status species. (Less than Significant)	None required.		No New Impact or Changes

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
E. Geology, Soils, and Seismicity			
GEO-1: The proposed project would be subject to ground shaking from a seismic event on one of the regional active faults, potentially causing personal injury and significant damage to structures (Less than Significant)	None required.		No New Impact or Changes
GEO-2: Development at the project site could subject people and property to slope instability hazards, including landslides, debris flows and rockfalls caused by seismic or nonseismic mechanisms. (Significant)	GEO-1: The applicant shall include the recommendations made in a finalized site-specific geotechnical investigation in regard to potential debris flow from the western slope as part of the proposed project. These recommendations include oversight of grading operations by a California Certified Engineering Geologist or Registered Professional Geotechnical Engineer, structural analysis and design of retaining walls, and drainage control improvements including subdrainage features behind retaining walls. Like the draft geotechnical report, recommendations in the final report would include those regarding the stability of retaining walls and minimization of hazard due to debris flows from the slope above the proposed project. The final grading plans shall be reviewed and approved of by the City of Scotts Valley Building Department prior to the commencement of project construction. Final inspection of excavated slopes and graded slopes shall be completed by a registered civil or geotechnical engineer or certified engineering geologist with knowledge of the project conditions.	Less than Significant	New Impact, but Less than Significant with Mitigation
GEO-3: With proposed cut and fill operations at the project site, development at the project site would be susceptible to settlement and potentially differential settlement either from static forces or earthquake induced forces causing structural damage or personal injury. (Less than Significant)	None required.		No New Impact or Changes
GEO-4: Implementation of the proposed project, combined with past, present, and reasonably foreseeable probable projects, would not result in substantial adverse cumulative impacts to geology, soils, or seismic hazards. (Less than Significant)	None required.		No New Impact or Changes
F. Hydrology and Water Quality			
HYD-1: The proposed project would require earthwork activities during construction that could potentially result in erosion and sedimentation of runoff offsite. (Significant)	HYD-1: Implement Mitigation Measure HYD-1 as stated above.	Less than Significant	No New Impact or Changes

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
F. Hydrology and Water Quality (cont.)			
<p>HYD-2: The proposed project would increase the amount of impervious surfaces on the site which would result in higher levels of surface runoff, potentially increasing erosion and flood hazards downstream. (Significant)</p>	<p>HYD-2a: <i>Design and Construct Adequately Sized Detention Facilities.</i> Prior to issuance of the building permit for the proposed development, the project sponsor shall submit designs for the detention facilities for approval by the City of Scotts Valley Public Works Department. Existing runoff from the retail store project site shall be routed through onsite storm drain detention facilities so that the runoff can be metered prior to discharge into the existing storm drain system. The design shall be in accordance with current SWMP regulations. Detention basins shall provide for post-development flows that equal pre-development flows for a 24-hour 85th percentile rain event, or the flow of runoff produced from a rain event equal to at least two times the 85th percentile hourly rainfall intensity or whatever SWMP regulations are in effect at that time.</p>	Less than Significant	No New Impact, but New or Updated Mitigation Identified
	<p>HYD-2b: <i>Incorporate Infiltration and Pollution Control Measures into Drainage System.</i> The project sponsor shall incorporate measures into drainage system for the proposed retail store development (storm drains, conduits, and channel improvements) that maximize infiltration/permeability and trap pollutants and sediment from stormwater runoff to the maximum extent practicable in accordance with SWMP regulations.</p>		
<p>HYD-3: The proposed project would increase stormwater runoff leaving the site which could potentially result in impacts to water quality downstream in receiving waters. (Significant)</p>	<p>HYD-3a: <i>Install Pollutant Control Devices into the Storm Drainage System.</i> The project sponsor shall install easily cleanable sediment catch basins, debris screens, and grease separators or similar water quality protection devices in the drainage facilities serving both project sites (i.e., vegetated swales, buffer strips, detention pond areas).</p>	Less than Significant	No New Impact, but New or Updated Mitigation Identified
	<p>HYD-3b: <i>Best Management Practices (BMPs).</i> The project sponsor shall implement BMPs that are designed to protect water quality of stormwater runoff. The BMPs for the project shall be chosen by the City, in consultation with the Scotts Valley Water District, and the Regional Water Quality Control Board, and shall be determined prior to final project approval. BMPs shall be in accordance with the California Stormwater Quality Associations Handbook for new development. Low Impact Development measures shall be incorporated to the extent practicable into the final drainage plan design.</p>		

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
F. Hydrology and Water Quality (cont.)			
HYD-3 (cont.)	<p>HYD-3c: <i>Ensure Maintenance of Pollutant Control Devices.</i> The project sponsor shall ensure maintenance of the stormwater pollution control facilities through in-lieu fees paid to the City, or by other means identified by the Public Works Department and Scotts Valley Water District.</p> <p>HYD-3d: <i>Label Storm Drain Inlets.</i> All storm drain inlets shall be labeled to educate the public about the adverse impacts associated with dumping into receiving waters.</p> <p>HYD-3d: <i>Clean Parking Areas.</i> The project sponsor shall clean or sweep parking areas on a monthly basis.</p>		
HYD-4: The proposed project would reduce the amount of pervious surfaces on the site which could reduce the amount of groundwater recharge at the site. (Less than Significant)	None required.		No New Impact or Changes
HYD-5: The increased construction activity and new development resulting from the project, in conjunction with other past, present and reasonably foreseeable projects in the area would not result in substantial adverse cumulative impacts with respect to hydrology and water quality. (Less than Significant)	None required.		No New Impact or Changes
G. Noise			
NOI-1: Project construction could expose persons to or generate noise levels in excess of standards. (Significant)	NOI-1: Implement 2005 SEIR Mitigation NO-1.1a through NO-1.1f.	Less than Significant	No New Impact or Changes
NOI-2: Operation of the proposed project would not expose persons to or generate noise levels in excess of standards established in the local general plans or noise ordinances, or applicable standards of other agencies. (Less than Significant)	None required.		No New Impact or Changes
NOI-3: Traffic associated with operation of the project would result in an increase in ambient noise levels on nearby roadways used to access the project site. (Less than Significant)	None required.		No New Impact or Changes
NOI-4: The proposed project, together with anticipated future development in the area, could result in long-term traffic increases that could cumulatively increase noise levels. (Less than Significant)	None required.		No New Impact or Changes

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
H. Air Quality			
<p>AIR-1: Project construction would not violate air quality standards or contribute substantially to an existing or projected air quality violation during the short-term duration of construction. (Significant)</p>	<p>AIR-1a: Implement 2005 SEIR Mitigation Measure (1994 EIR Mitigation Measure 8), as modified in this SEIR.</p> <p>The project sponsor shall prepare a Construction Air Pollutant Control Plan and submit the Plan to the MBUAPCD for review, along with a grading plan showing the area to be disturbed, a description of the equipment proposed to be used during grading, and pollution control measures to be employed. The Plan shall incorporate Best Available Control Technology for Construction Equipment (CBACT), including, but not limited to, the following:</p> <ul style="list-style-type: none"> • Sprinkle unpaved construction sites with non-potable water at least twice per day; • Cover trucks hauling excavated materials with tarpaulins or other effective covers or shall maintain two feet of freeboard in accordance with California Vehicle Code Section 23114; • Cease grading activities when winds are greater than 30 mph; <p>Cover soils storage piles not to be used within one business week. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast-germinating native grass seed and watered until vegetation is established;</p> <ul style="list-style-type: none"> • Install wheel washers for all exiting trucks; • Vehicle speed for all construction vehicles shall not exceed 15 mph on unpaved areas; • Limit the area under construction; • Sweep streets serving the construction sites at least once per day; • Pave and plant as soon as possible; • Properly maintain all construction equipment and portable engines and tuned such equipment to manufacturer's specifications; • Ensure that off-road and portable diesel powered equipment is fueled exclusively with ARB-approved vehicle diesel fuel; • Reduce unnecessary idling; and • Use adhesives, clean-up solvents, paint, and asphalt paving materials with a low ROG content. 	<p>Less than Significant</p>	<p>No New Impact, but New or Updated Mitigation Measure Identified</p>

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
H. Air Quality (cont.)			
AIR-1 (cont.)	AIR-1b: The project sponsor shall ensure that the contractor designates a person or persons to monitor the dust control program and to order increased watering as necessary to prevent transport of dust off-site. The monitor(s) shall be available to the public via a posted telephone number at the construction site, including on holiday and weekend periods when work may not be in progress.		
AIR-2: Project operation would violate air quality standards or contribute substantially to an existing or projected air quality violation during long-term operation. (Less than Significant)	None required.		No New Impact or Changes
AIR-3: The project would not conflict with implementation of state goals for reducing greenhouse gas emissions and therefore would not result in a significant impact with respect to GHG emissions or climate change. (Less than Significant)	None required.		No New Impact or Changes
AIR-4: The proposed project together with anticipated future development in the area could result in long-term traffic increases and could cumulatively increase regional and localized air pollutant emissions and conflict with goals of the MBUAPCD. (Less than Significant)	None required.		No New Impact or Changes
I. Public Services and Recreation			
PS-1: The increased daytime population resulting from the project would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for police protection services, but would result in increased demand for police services. (Significant)	PS-1: The project sponsor shall provide the Scotts Valley Police Department with a site plan and shall incorporate any safety/prevention design measures recommendations into the final project design.	Less than Significant	New Impact, but Less than Significant with Mitigation
PS-2: The increased daytime population resulting from the proposed project would increase demand for fire protection and emergency medical services, but would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for fire protection and emergency medical services and facilities. (Less than Significant)	None required.		No New Impact or Changes

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
I. Public Services and Recreation (cont.)			
PS-3: Any increase in students indirectly generated by the proposed project would not require new or physically altered school facilities in order to maintain acceptable service ratios or other performance objectives at local public schools. (Less than Significant)	None required.		No New Impact or Changes
PS-4: The project would not result in increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of these facilities would occur or be accelerated, nor would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. (Less than Significant)	None required.		No New Impact or Changes
PS-5: Development of the proposed project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts to the provision of public services. (Less than Significant)	None required.		No New Impact or Changes
J. Other Issues			
Agricultural Resources	None required.		No New Impact or Changes
Cultural Resources	CUL-1: In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 100 feet of the resources shall be halted and after notification, the project sponsor shall consult with a qualified archaeologist to assess the significance of the find. If any find is determined to be significant (CEQA Guidelines 15064.5[a][3] or as unique archaeological resources per Section 21083.2 of the California Public Resources Code), representatives of the Port and a qualified archaeologist shall meet to determine the appropriate course of action. In considering any suggested mitigation proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the lead agency shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is carried out.	Less than Significant	No New Impact, but New or Updated Mitigation Measure Identified

**TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
J. Other Issues (cont.)			
Cultural Resources (cont.)	<p>CUL-2: If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with the City of Scotts Valley.</p> <p>CUL-3: If human remains are discovered during construction, CEQA Guidelines 15064.5 (e)(1) shall be followed, which is as follows:</p> <p>In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:</p> <ol style="list-style-type: none"> 1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: <ol style="list-style-type: none"> a) The Santa Cruz County coroner is contacted to determine that no investigation of the cause of death is required, and b) If the coroner determines the remains to be Native American: <ol style="list-style-type: none"> 1. The coroner shall contact the Native American Heritage Commission within 24 hours. 2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American. 3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or 2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. 	Less than Significant	No New Impact, but New or Updated Mitigation Measure Identified
		Less than Significant	No New Impact, but New or Updated Mitigation Measure Identified

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Level of Significance after Mitigation	Comparison to 2005 SEIR Findings
J. Other Issues (cont.)			
<i>Cultural Resources</i> (cont.)	<ul style="list-style-type: none"> a) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the Commission. b) The descendant identified fails to make a recommendation; or c) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner. 		
<i>Hazards and Hazardous Materials</i>	None required		No New Impact or Changes
<i>Mineral Resources</i>	None required		No New Impact or Changes
<i>Population and Housing</i>	None required		No New Impact or Changes
<i>Urban Decay</i>	None required		No New Significant Impact
<i>Utilities and Service Systems</i>	None required		No New Impact or Changes

CHAPTER 3

Project Description

A. Introduction

The proposed Gateway South retail store project would entail the construction of a 143,000-square foot retail store and 517 associated parking spaces, including 57,650 square feet of covered parking, in the City of Scotts Valley. The approximately 17.62-acre project site is located on the west side of State Route (SR) 17, on La Madrona Drive, generally southwest of the Mt. Hermon Road / La Madrona Drive exit, in the City of Scotts Valley in Santa Cruz County. The elevated western portion of the site, which contains mature redwood and native live oak trees, would be retained as open space. The project would require an amendment to the Gateway South Specific Plan to accommodate the proposed building coverage.

Site History

The *Gateway South Specific Plan Final EIR* (1995) and the *Supplemental EIR Gateway South Office Building and Fire Station* (2005) both addressed development on the proposed project site. The analyses in these previous documents are relevant to the current project to the extent that the site where development is proposed is the same as the site that will be discussed in this SEIR. However, a substantial amount of time has passed since preparation of the earlier documents, a re-analysis of current conditions is warranted. In addition, the earlier documents addressed different uses on the site and additional parcels not included in the proposed project (i.e., the entire Specific Plan area and the fire station parcel). The analyses presented in the two previous documents is summarized, referenced, and updated throughout this SEIR.

B. Project Objectives

CEQA *Guidelines* Section 15124(b) requires that the Project Description of an EIR contain a statement of objectives for the proposed project. The project sponsor, Title Two Investment Corporation, seeks to develop a retail store in the city of Scotts Valley in Santa Cruz County. The sponsor's objectives for the project include the following:

- Construct a locally and regionally serving general merchandise store (Target) that would serve Scotts Valley and nearby communities, providing needed retail goods and services.
- Develop a viable retail project (Target) which increases the tax base of the City by contributing a positive generation of tax revenue to the City.

- Promote economic growth by creating new employment opportunities within the City.
- Provide convenient access to the community and to the traveling public with a location immediately adjacent to SR 17, while minimizing impacts on the local street system.
- Develop an aesthetically pleasing site plan and architectural building design that exemplifies the City's planning and design criteria.

C. Project Location and Characteristics

Project Location and Setting

Scotts Valley is located along SR 17 within Santa Cruz County, approximately six miles north of the City of Santa Cruz and 25 miles south of the City of San Jose.

The area surrounding the project site is predominately service commercial, high and low density residential, and open space. The project site is located on the edge of the urban environment in the City of Scotts Valley, on a parcel that gradually slopes upward to a steep hillside to the west. The project site is bounded by residential and open space to the west, a Hilton Hotel to the north, a retail center known as Scotts Valley Corners and SR 17 to the east, and Silverwood Drive and undeveloped land to the south.

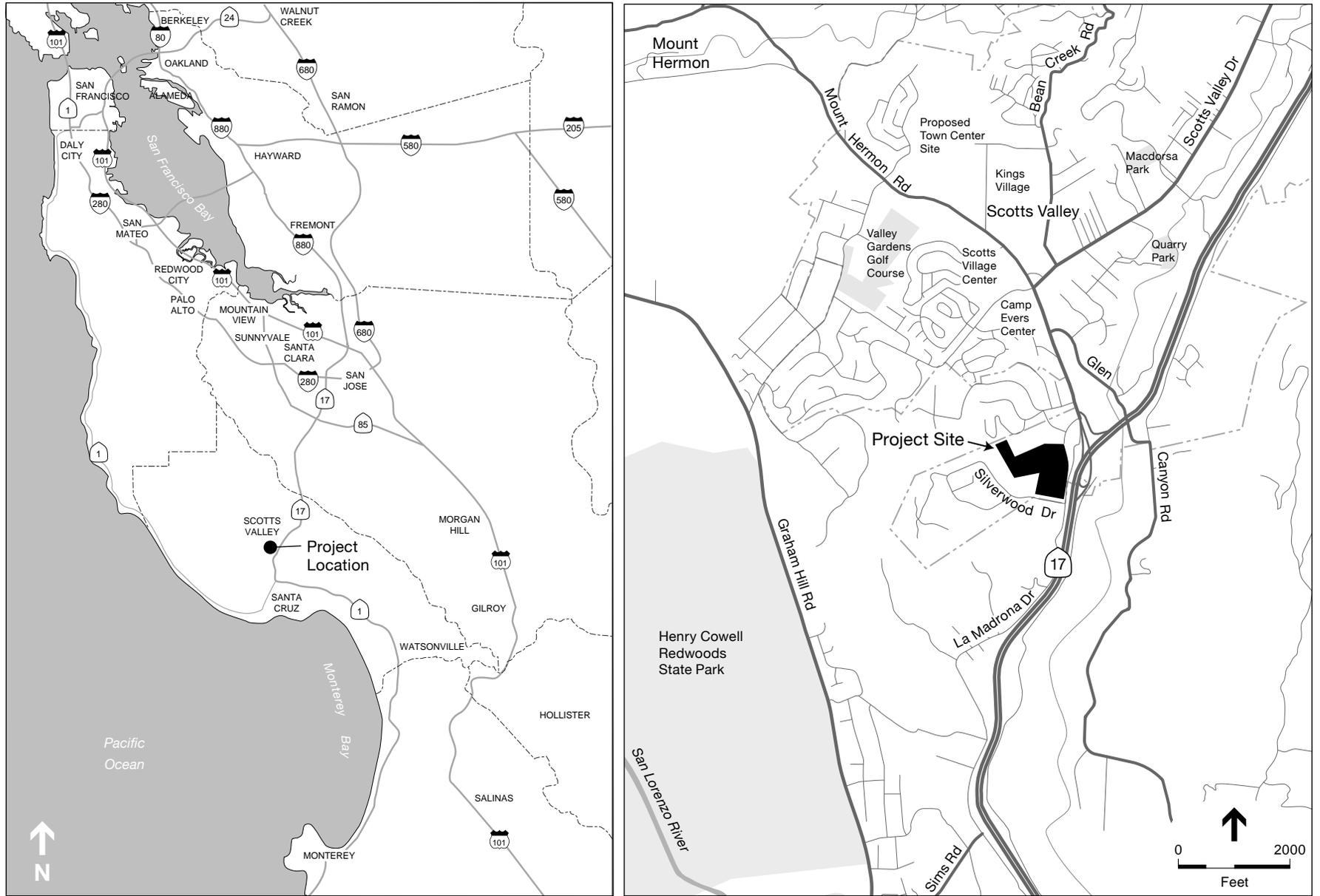
The eastern portion of the approximately 17.62-acre project site, where the proposed retail store would be built, is an undeveloped meadow of native and non-native grasses that slopes upward to the west. Steeper slopes on the western portion of the site are vegetated with a mature, mixed coniferous forest. **Figure 3-1** illustrates the project location and site boundary. The project site is owned by the project sponsor, Title Two Investment Corporation.

The surrounding area of the project site is characterized by different land uses. SR 17 runs in a northeast-southwest direction just east of the boundary of the project site. A small commercial office and retail complex is located across from La Madrona Drive (Scotts Valley Corners), northeast of the project site. Low to high density residential communities abut the project site at the western and northern boundaries. East of SR 17 there are dispersed single-family residential homes and large tracts of densely forested open space. The city center is less than two miles north of the project site, along the Scotts Valley Drive/Mt. Hermon Road corridors.

There are no notable changes in physical setting of the project site or vicinity since the adoption of the 2005 SEIR.

Project Components and Characteristics

The proposed project would construct a 143,000 square foot retail store on the west side of SR 17. The facility is intended for occupancy by Target, with approximately 100,000 square feet constructed as sales floor space and the remaining 43,000 square feet developed for offices, storage space and break rooms. The retail store (Target) would be located on the southeastern



SOURCE: Thomas Bros. Maps; ESA

Gateway South Retail Store . 207755

Figure 3-1
Project Location

portion of the project site at the corner of La Madrona Drive and Silverwood Drive. The front of the store would face the northern portion of the site where customer parking would be provided. The retail and parking building coverage would occupy approximately 34 percent of the entire site. See **Figure 3-2**.

The building would be a standard retail store (Target) configuration, which does not include a supermarket or garden center. The 517 parking spaces would be constructed on a two-story parking deck and would be located adjacent to La Madrona Drive. Two driveways would enter the site from La Madrona Drive only; there would be no access point from Silverwood Drive, at the southern end of the site.

The loading area would be located on the northwestern side of the building, and would not be visible from public roads.

Landscaping would consist of perimeter trees and low lying plantings along the entire project frontage, on the upper level of the parking deck, and along the project boundary with the Hilton to the north. Landscaping along the project frontage would be terraced in two levels.

In addition, the project would construct a retaining wall below the 40 percent slope line just to the west of the development to secure the steeper natural landscape on the eastern portion of the property, which would constitute approximately 40 percent of the project site. On the west side of the open space, the project would restore native vegetation and plant a new redwood grove.

The project would require the removal of 25 trees - which include some Coast redwood, Coast live oak, Douglas fir, Pacific Madrone and Silver wattle trees - primarily in the northeast corner and western perimeter of the site.

The proposed project includes both the development of a retail store (Target) and an amendment to the *Gateway South Specific Plan* to allow for the additional building coverage.

Circulation, Access and Parking

Vehicle access would be from two driveways entering and exiting on La Madrona Drive. The project sponsor would develop parking for approximately 517 vehicles, including 13 disabled-accessible spaces, in a two-level parking deck on the northern end of the project site. The two-level parking deck would include parking spaces for 160 vehicles on the lower deck and 357 parking spaces on the upper deck. There would be a total of 77 compact parking spaces. The lower level of the parking deck would be considered part of the project building coverage and would be approximately 57,650 square feet.

Parking aisles would be constructed parallel to the store entrance. Sidewalks would be constructed along La Madrona Drive and Silverwood Drive. The primary pedestrian access would be taken from La Madrona Drive with emergency access on the western side of the building from Silverwood Drive. Parking and circulation would occupy approximately 29 percent of the proposed developed part of the site.

Site Grading

Construction for the proposed project would require onsite grading. Onsite grading would consist of around 66,000 cubic yards of cut material (to a maximum of 30 feet), primarily along the eastern portion of the site, and around 73,000 cubic yards of fill material (to a maximum of 25 feet) along the southwestern portion of the site, with an estimated net import of roughly 7,000 cubic yards of material. Assuming all cut soil would remain onsite and used as fill material, approximately 350 truckloads (at 20 cubic yards per truck) would be required to complete grading for this project.

Architectural Style

The proposed retail store (Target) represents a contemporary design with architectural references to traditional building designs such as the Arts and Crafts Movement. References include use of wood eave brackets and wood frame trellises, a building base and columns clad in horizontally arranged fieldstones with stucco cladding above, and a strong entry sequence punctuated by a deeply projecting portico, and generous glazing within an asymmetrical plan. A rendering of the proposed project is presented in **Figure 3-3**.

Operations

The proposed retail store (Target) would operate seven days a week. The retail store would maintain hours of operation from 8:00 a.m. to 10:00 p.m., Monday through Saturday and 8:00 a.m. to 9:00 p.m. on Sunday. During the holiday season, the store would have extended shopping hours. The store would be open from 8:00 a.m. to 11:00 p.m. the week before Thanksgiving to December 23 for the holiday shopping season. The day after Christmas, the store would be open from 7:00 a.m. to 11:00 p.m. The store would be closed on Easter Sunday, Thanksgiving Day, and Christmas Day.

Employment

The proposed retail store would employ up to approximately 250 people. The average shift at the store would have 50 employees. The peak shift at the store would employ between 60 and 70 employees.

Infrastructure

The project would create new water and energy demand on the site. According to the City's Municipal Services Plan, an existing water line extends up Mt. Hermon Road and along La Madrona Drive to Silverwood Drive. The proposed project would connect to existing utilities along the perimeter of the project site.

The project site falls within the Scotts Valley Water District and the City of Scotts Valley Waste Water Treatment Plant service areas. On April 6, 2009, the Scotts Valley Water District issued a Will Serve Letter to the project sponsor regarding service requirements for the project site. The project sponsor must provide the Water District with specific plans and project specifications,



including a water fixture count, to determine meter service requirements and to determine the adequacy of existing District mains to service the project site.

General Plan Amendments and Rezoning

The project site land use designations are Commercial-Service (“C-S”) and Open Space (“O-S”) per amendments to the City’s *General Plan* in the Gateway South Specific Plan. The project site zoning designations are the same as its land use designations (C-S and O-S). Commercial-Service includes retail, service, hotel and motel establishments as allowable uses. The project site is located within the Specific Plan’s Planning Area B. See Chapter 4, *Land Use and Planning*, for an additional description of *General Plan* designations.

The purpose of the Specific Plan was to set forth policies which would coordinate comprehensive circulation planning and improvements at the proposed development areas.

Policy 6.3 in the Specific Plan states that the maximum total building coverage in Planning Area B shall be 151,000 square feet, and that any proposal to exceed this limitation shall require a Specific Plan amendment. The total existing and approved building coverage in Planning Area B is 62,000 sq.ft., which includes the Hilton Hotel (38,000 sq.ft.), the small retail and office establishment just east of the hotel known as Scotts Valley Corners (12,000 sq.ft.), and the approved, but not yet constructed, fire station project (12,000 sq.ft.), leaving 89,000 sq.ft. of developable space in Planning Area B. The proposed retail store (Target) would have a building coverage of 143,000 sq.ft., plus 57,650 sq.ft. of covered parking. Therefore, the project includes an amendment to the Specific Plan to increase the permitted building area from 151,000 sq.ft. to 282,650 sq.ft.¹

The Scotts Valley General Plan contains policies that are specific to the General Plan area, particularly designating part of the Gateway South Area as a Special Treatment Area. The General Plan also specifies that access points on Mt. Hermon Road should be minimized, given its function as a main artery from the San Lorenzo Valley to SR 17 and the City of Santa Cruz. The project goals, objectives and policies set forth in the Specific Plan are consistent with and help to implement the City’s General Plan.

Project Schedule

Project construction is anticipated to begin in the late spring 2010, contingent upon approval of the project by early 2010. The project sponsor anticipates a 14-month timeline from start to completion of the project with three phases of construction. Construction staging would occur primarily on the site and is anticipated to include a storage container, mobile office, parking, materials area and other construction equipment. Noise generating construction activity would occur Monday through Friday from 8:00 a.m. to 6:00 p.m. and construction activity on Saturdays

¹ As plans for the proposed project are not final and engineering calculations have not been completed, an additional 20,000 square feet would be added onto the proposed square footage to eliminate possible additional amendment requests.

are allowed from 9:00 a.m. to 5:00 p.m. No construction activity is allowed on Sundays (Code 17.46.160). All construction activity is excluded on holidays as recognized by the City Council. The project would require grading to extend over approximately 9.4 acres of the 17.62-acre site. Equipment will include excavators, haulers, front end loaders, power shovels, fork lifts and dump trucks. Foundations are spread footings (pile driving is not expected).

An example of possible construction phasing includes:

Phase 1: would span 3 months and would include excavation and site preparation work. Sidewalks to be temporarily blocked during Phase 1 site work only.

Phase 2: would span 7 months and would include the building construction.

Phase 3: would span 3 months and would include the interior construction.

D. Approvals and Permits

City approvals that would be required include:

- Scotts Valley Planning Commission recommendation for and City Council certification of this SEIR.
- Scotts Valley Planning Commission recommendation for and City Council adoption of an amendment to the Gateway South Specific Plan to increase the permitted building coverage in the Specific Plan's Planning Area B from 151,000 square feet to 262,650 square feet.
- Scotts Valley Planning Commission recommendation for approval of a Planned Development Zoning and Permit for the proposed project.
- Scotts Valley Planning Commission approval of the proposed project design, pursuant to Chapter 17.50.030 of the Municipal Code, Design and Review Procedures.

Additional approvals and/or permits could also be required from:

- Caltrans for approval of any work and/or mitigation that may be required in the Right-of-Way (ROW) of SR 17 or its ramps.
- Monterey Bay Unified Air Pollution Control District (MBUAPCD) for an emergency generator.
- City of Scotts Valley for permit and/or approval for the removal of protected trees, pursuant to the Tree Protection Regulations, Section 17.44.080 of the Scotts Valley Municipal Code.

CHAPTER 4

Environmental Setting, Impacts and Mitigation Measures

Introduction to the Environmental Analysis

Overall Scope of Analysis

This chapter includes the environmental analysis for topics that required additional environmental review in a Supplemental EIR (SEIR), in accordance with Public Resources Code (PRC) Section 21166 and CEQA Guidelines Sections 15162 and 15163. This additional environmental review is being conducted to evaluate certain potential environmental effects of the proposed project in the Gateway South Specific Plan Area. As discussed in detail in Chapter 1, *Introduction*, the City concluded that the 2005 SEIR for the project site was relatively recent; however, additional environmental review would be conducted for the following topics, which are analyzed in this chapter:

- Traffic and Circulation;
- Aesthetics and Visual Quality;
- Land Use and Planning;
- Biological Resources;
- Geology and Soils;
- Hydrology and Water Quality;
- Noise;
- Air Quality and Climate Change; and
- Public Service and Recreation.

Each analysis section in this chapter addresses the following:

- 1) **Current Environmental Setting and Conditions** (existing baseline conditions, regulatory background, and any substantial changes or new information of substantial importance);
- 2) **Changed Circumstances or New Information of Substantial Importance**, pursuant to PRC Section 21166 and CEQA Guidelines Section 15162, that could result in the proposed project having a new significant impact not previously identified in the 2005 SEIR.
- 3) **2005 SEIR Impacts, Mitigation Measures, and Conclusions** identified for the proposed Gateway South Office Building and Fire Station;

- 4) **Proposed Project Impact Analysis** (direct, indirect or secondary, short-term, and cumulative) that could result from the proposed project, and **Mitigation Measures** that would reduce or eliminate adverse effects, to the extent feasible mitigation is identified.

The significance thresholds or criteria used to assess the significance of adverse environmental effects are identified (see *Significance Thresholds* discussed below), and the significance of the impact prior to and after implementation of mitigation measures is reported.

Overall Approach to Analysis

Overall, the analysis provided in this SEIR has been prepared in accordance with CEQA, as amended (Public Resources Code Section 21000), and the State CEQA Guidelines (California Code of Regulations). The analysis addresses the potential impacts identified above that would result from the construction and operation of the proposed project.

Cumulative Context

A cumulative impact occurs when the impact of two or more individual impacts (even though the impact may not be significant individually), when considered together, are substantial or compound or increase other environmental impacts. The cumulative analysis is intended to describe the “incremental impact of the project when added to other, closely related past, present, or reasonably foreseeable future projects” that can result from “individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Section 15355). (Also see *Impact Overview* discussion in Chapter 6). The geographic context for the cumulative analyses are identified within the cumulative impact discussion for each environmental topic.

To establish the overall cumulative context for most analysis topics in this SEIR based on information available to the City at the time this document was being prepared, the City of Scotts Valley utilized its detailed list of proposed, approved, and reasonably foreseeable development based on growth under the *General Plan*. Use of the list ensures that updated cumulative impacts are appropriately considered within the context of future citywide and regional growth and development. The list of project used in the cumulative analysis is provided in **Appendix G** of this SEIR.

Significance Thresholds

The City of Scotts Valley does not have an established local Thresholds/Criteria of Significance Guideline (referred to as “Thresholds”), but bases environmental review on the provisions in the CEQA Guidelines for determining the significance of environmental effects, including Sections 15064, 15064.5, 15065, 15382 and Appendix G. The Thresholds are used to evaluate the proposed project in this SEIR, as there are no unique factors that warrant the use of different thresholds.

Classifications of Impact Significance

The following level of significance classifications are used throughout this SEIR:

- **Significant and Unavoidable (SU)** – The impact of the project reaches or exceeds the defined threshold of significance. No feasible mitigation measure is available to reduce the significant impact to a less-than-significant level. In these cases, feasible mitigation measures are identified to reduce the significant impact to the maximum extent feasible, and the significant unavoidable classification is noted.
- **Significant (S)** – The impact of the project is expected to reach or exceed the defined threshold of significance. Feasible mitigation measures may or may not be identified to reduce the significant impact to a less-than-significant level.
- **Less than Significant (LTS)** – The impacts of the project either before or after implementation of feasible mitigation measures do not reach or exceed the defined threshold of significance. Generally, no additional mitigation measures are required. The 1998 EIS/EIR refers to this classification as “nonsignificant”.
- **No Impact (N)** – No noticeable adverse effect on the environment would occur.

Comparison of Environmental Impacts

The comparison of potential environmental effects that may result with the proposed project to the effects identified previously for the 2005 SEIR project conducted in this SEIR is intended to determine if circumstances exist that could result in the proposed project having a new significant environmental impact not previously identified in the 2005 EIR. For each topic, the SEIR will conclude one of the following for the proposed project:

- **No New Impact or Changes** – The proposed project would result in substantially the same impact (significant or otherwise) as identified in the 2005 SEIR.
- **No New Impact, but New or Updated Mitigation Measure Identified** – The proposed project would result in substantially the same impact (significant or otherwise) as identified in the 2005 SEIR, but mitigation measures are added or revised due to changes proposed by the City (e.g., methodologies and standard practices) or to update performance or regulatory standards.
- **New Impact, but Less than Significant with Mitigation** – The proposed project would result in a new or substantially more severe significant impact, new information, or changes in circumstances that were not identified in the 2005 SEIR; however the new impact is reduced to less than significant with new or revised mitigation measures.
- **New Significant Impact, Unmitigable** – The proposed project would result in a new or substantially more severe significant impact, based on changes to the project, new information, or changes in circumstances that were not identified in the 2005 SEIR; however no feasible mitigation measure reduces the new impact to less than significant.

Comparison of 2005 SEIR Project to Proposed Project

As discussed in detail in Chapter 1 *Introduction*, the analysis in this SEIR compares the environmental effects of the 2005 SEIR office building and fire station project to the proposed project. The intent is to assess the relative impacts of the proposed project relative to the findings in the previously certified 2005 SEIR.

In 2005, the City adopted a SEIR for the proposed Gateway South Office Building and Fire Station. Although never constructed, the SEIR evaluated the construction of a 136,000 sq.ft. office building and a 12,000 sq.ft. fire station on two parcels.¹ The office building component of the project would have included a two-story 136,000 sq.ft. building on approximately 6.6 acres of the lower, flatter portions of the site. The remaining 11 acres would have been maintained as natural or landscaped natural open space, including the forested upper slopes on the western side of the property.

The building would have been approximately 460 feet long, 190 feet wide, and approximately 38 feet tall to the top of the roof measured from the finished grade. Parking areas would have surrounded the building on all sides, providing parking for approximately 550 vehicles.

The 2005 SEIR addresses the same property as this SEIR, with a very similar construction footprint as the proposed project. The exception to the footprint similarities of the two projects relates to the “teardrop” parcel. The “teardrop” parcel is a small, triangle shaped parcel on the east side of La Madrona Drive, which was proposed for development as a fire station in the 2005 SEIR. There is no development planned for the “teardrop” parcel in the current project proposal.

In all other respects, the footprint of the office building with surrounding parking lot and landscaping discussed in the 2005 SEIR is comparable to the footprint of the proposed project, including the parking areas and landscaping, discussed in this SEIR.

Designation of Impacts and Mitigation Measures

Impacts

This SEIR identifies all impact statements using an alphanumeric designation that corresponds to the environmental topic (e.g., “AES-1” for aesthetics). The alpha designation is followed by a number within a particular environmental topic. For example, “Impact AIR-3” is the third air quality resources impact identified in this SEIR. All SEIR impact statements are in bold text.

¹ The project site is the parcel on which the office building would have been constructed. The fire station, which remains an approved project, would be constructed on the “tear-drop” shaped parcel on the east side of La Madrona Drive

Mitigation Measures

Nomenclature of Impacts and Mitigations

Project-specific mitigation measures are identified throughout this SEIR to reduce the effects of significant environmental impacts. All mitigation measures will be 1) included as part of the design, construction, and operations of the proposed project; 2) adopted as conditions of approval for the project; 3) will be subject to the monitoring and reporting requirements of CEQA and the terms of the discretionary approvals for the project.

This SEIR designates mitigation measures in the same manner described above for Impacts. Where there are multiple measures to address the same impact, each is numbered sequentially. Generally, all mitigation measures are indented and in bold text, although in cases where the mitigation includes extensive text, not all text may be bolded (primarily mitigation measures related to biology, traffic and air quality impacts).

Mitigations from the 2005 SEIR

In certain cases, mitigation measures identified for in the 2005 SEIR would also effectively reduce significant impacts of the proposed project to less than significant. Such mitigation measures are modified as necessary to specifically apply to the project and reflect or incorporate current regulations, standards, and professional practices.

Mitigation measures from the 2005 SEIR are referenced as described above for impacts. However, when incorporated into this SEIR to apply to the proposed project, the 2005 SEIR measure is renamed using the SEIR mitigation measure nomenclature described above.

References and Resources

Persons and documents consulted during preparation of the analysis in this SEIR are listed at the end of each analysis section (i.e., Sections 4.A through 4.J).

A. Transportation and Circulation

This section presents the results of the transportation impact analysis conducted for the proposed Gateway South project.¹

The analysis evaluates the traffic-related impacts of the proposed project during the weekday morning (AM), evening (PM), and Saturday mid-day (SAT) peak hours for Existing and Cumulative (2018) without and with the proposed project.² The analysis was conducted in compliance with City of Scotts Valley and the California Department of Transportation (Caltrans) guidelines. Traffic conditions are assessed at eight key intersections, and the ramp junctions at one interchange, in the study area for the following four scenarios:

Existing – Represents existing conditions with volumes obtained from recent traffic counts and the existing roadway system.

Existing Plus Proposed Project – Existing conditions plus project-generated traffic.

Cumulative (2018) No Project – Growth-factored existing peak-hour volumes plus traffic from approved and pending, but not yet constructed, developments in the study area.

Cumulative (2018) Plus Proposed Project – Cumulative conditions, as determined in the Cumulative (2018) No Project scenario, plus project-generated traffic.

Setting

Existing Street and Highway System

Regional vehicular access to the project site is provided by State Route 17, State Route 9. Local access to the site is provided by Mt. Hermon Road, Scotts Valley Drive, Glen Canyon Road, and La Madrona Drive.³ **Figure 4.A-1** illustrates the location of the proposed project and the local and regional street system.

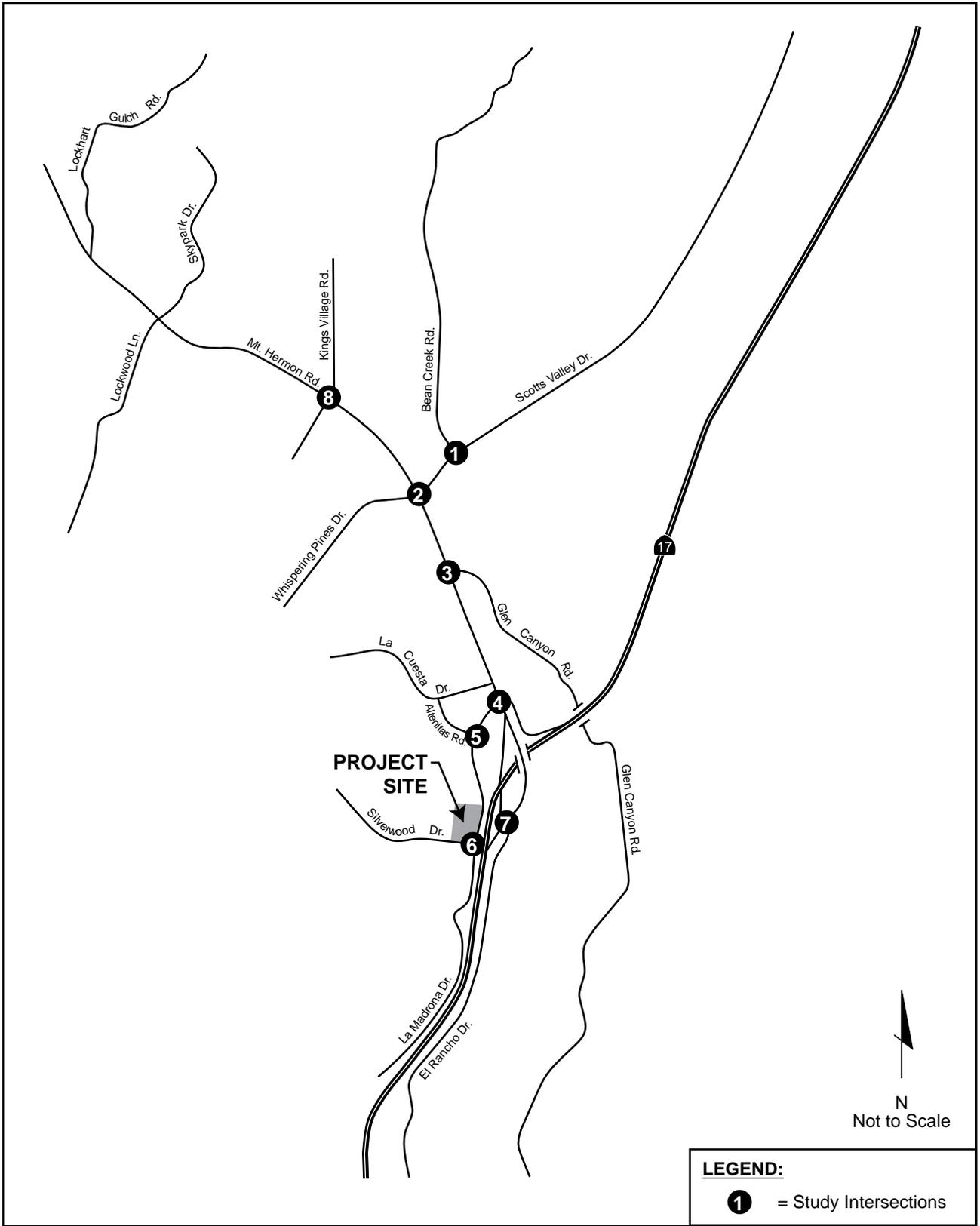
Regional Access

State Route (SR 17) is a four- to eight-lane, north-south facility that extends between the cities of Santa Cruz and San Jose. In the vicinity of the project site, SR 17 is a four-lane freeway with full-access interchanges at Mt. Hermon Road and Granite Creek Road.

¹ This EIR section was prepared on the basis of information and analysis findings contained in a transportation analysis (Fehr & Peers Transportation Consultants, *Final Transportation Impact Analysis for Gateway South: Scotts Valley Target*, July 7, 2009), which was critically reviewed and amended, as appropriate, by the EIR consultant and City of Scotts Valley staff. It is provided in Appendix E this SEIR.)

² The General Plan includes a new Mid-Town interchange on SR 17, which would alter traffic volumes and distribution patterns in the study area. This report examines cumulative conditions both with and without the new interchange. The traffic report prepared for this SEIR includes an analysis with the Mid-Town interchange is presented in Appendix E.

³ For simplification, SR 17 and parallel facilities (e.g., Scotts Valley Drive) were assumed to be aligned north-south and Mt. Hermon Road was assumed to extend east-west through the project study area.



SOURCE: Fehr & Peers

Gateway South Retail Stores . 207755

Figure 4.A-1
Site Location

State Route 9 (SR 9) is a two-lane, generally north-south roadway between SR 17 in the Town of Los Gatos and SR 1 (Mission Street) in the City of Santa Cruz. SR 9 is located west of the project site and serves the communities of Boulder Creek, Ben Lomond, and Felton. Regional traffic using SR 9 can access the project site via Mt. Hermon Road.

Local Access

Mt. Hermon Road is an arterial roadway extending between Graham Hill Road to the west and El Rancho Drive just east of SR 17. Near the project site, this street is oriented in a northwest-to-southeast direction and provides four travel lanes, except for the two-lane overcrossing at SR 17. Between La Madrona Drive and Lockwood Lane, Mt. Hermon Road generally serves retail and commercial land uses.

Scotts Valley Drive is a four-lane, north-south arterial roadway extending between Mt. Hermon Road and Glenwood Drive. South of Mt. Hermon Road, Scotts Valley Drive becomes Whispering Pines Drive. Scotts Valley Drive is designated as a collector street north of Glenwood Drive.

Glen Canyon Road is a two-lane north-south roadway that extends from Mt. Hermon Road to Branciforte Drive in Santa Cruz. Glen Canyon Road parallels SR 17 and serves as an alternate route between Scotts Valley and Santa Cruz for vehicles to bypass congestion on SR 17.

La Madrona Drive is generally a two-lane, north-south collector roadway extending between Mt. Hermon Road and El Rancho Drive to the south. La Madrona Drive also parallels SR 17 and provides access to Santa Cruz from Scotts Valley via Sims Road and Graham Hill Road. La Madrona Drive provides direct access to the project site.

Existing Transit Service

The Santa Cruz Metropolitan Transit District operates fixed route, commuter, and paratransit bus service in the City and County of Santa Cruz, as well as in the City of Scotts Valley (SCMTD, 2009). The following three local routes and one express route operate in the vicinity of the project site (as described below): Routes 31, 32, 35/35A, and the SR 17 Express, but currently, no bus stops are located within 1,000 feet of the project site.

Route 31 operates between the Transit Centers in the cities of Santa Cruz and Scotts Valley via SR 17 southbound. The Scotts Valley transit center is located on Kings Village Drive north of Mt. Hermon Road. This route operates on 30- to 60-minute headways during commute hours on weekdays between 7:00 a.m. and 8:30 a.m. and 1:30 p.m. and 5:15 p.m. This route does not provide direct access to Mt. Hermon Road near the La Madrona intersection.

Route 32 operates between the Transit Centers in Santa Cruz and Scotts Valley via SR 17 northbound. This route operates from 2:15 p.m. to 4:00 p.m. on approximately 40 minute headways. Route 32 does not provide direct access to the Mt. Hermon Road/La Madrona Drive intersection.

Routes 35/35A serves as a connection between Santa Cruz and Boulder Creek through the city of Scotts Valley. Weekday operation is provided from 6:00 a.m. to 12:00 a.m. with 30-minute

headways. Weekend service is provided from 6:30 a.m. to 12:00 a.m. on 30- to 60-minute headways. Route 35 exits SR 17 at the Mt. Hermon Road interchange north of the project site. Route 35A exits SR 17 on the Granite Creek interchange.

SR 17 Express serves as a connection between Santa Cruz County and Santa Clara County with stops at the Scotts Valley Transit Center and on Mt. Hermon Road. SR 17 Express operates on weekdays between 4:30 a.m. and 11:30 p.m. with headways of 15 to 60 minutes. On weekends and holidays, twelve northbound and twelve southbound trips are provided between 6:45 a.m. and 11:10 p.m.

Existing Pedestrian and Bicycle Facilities

Pedestrian facilities are comprised of sidewalks, crosswalks, and pedestrian signals. Near the site, sidewalks are provided on the west side of La Madrona Drive along the project frontage and in front of the Hilton Hotel extending north to Mt. Hermon Road. Crosswalks and pedestrian signal heads are provided at all of the signalized study intersections. Sidewalks are provided along Mt. Hermon Road near the project site. Between La Madrona Drive and Glen Canyon Road, the sidewalk on the south side of Mt. Hermon Road extends through the Torrey Oaks linear park, roughly paralleling Mt. Hermon Road.

Bicycle facilities are comprised of bike paths, lanes and routes. Bike paths are paved trails that are separated from roadways. Bike lanes are designated (by striping, pavement symbols, and signs) for use by bicyclists within separate lanes on roadways. Bike routes are designated (by signs) for bicycle use on roadways, within pavement width shared by motor vehicles. In the vicinity of the site, a bike route is designated and bike lanes are striped on La Madrona Drive along the entire project frontage, but the bike lanes terminate just south of Silverwood Drive. Bike lanes are also provided in both directions on Mt. Hermon Road and on Scotts Valley Drive in the study area.

Existing Traffic Conditions

Intersection and freeway ramp operations (listed below) were evaluated during weekday AM and PM peak traffic hours, as well as during the Saturday midday peak traffic hour. Peak conditions on weekdays usually occur during the morning and evening commute hours from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m., respectively. Saturday peak conditions usually occur between 11:00 a.m. and 1:00 p.m.

Intersections:

- 1 Scotts Valley Drive / Bean Creek Road (signal)
- 2 Mt. Hermon Road / Scotts Valley Drive (signal)
- 3 Mt. Hermon Road / Glen Canyon Road (signal)
- 4 La Madrona Drive / Mt. Hermon Road – SR 17 Southbound off-ramp (signal)
- 5 La Madrona Drive / Altenitas Road (side-street stop control)
- 6 La Madrona Drive / Silverwood Road (side-street stop control)

- 7 Mt. Hermon Road / El Rancho Drive – SR 17 Northbound ramps (side-street stop control)
- 8 Mt. Hermon Road / Kings Village Road (signal)

Freeway Ramp Junctions:

- 1 SR 17 / Mt. Hermon Road interchange

Traffic counts (collected from September 2006 through May 2007) for the signalized study intersections were obtained from the City of Scotts Valley for the AM and PM peak periods. These counts represent traffic conditions consistent with the *Scotts Valley Town Center Specific Plan and EIR* (November 2008). New peak period traffic counts were conducted in November 2008 and April 2009 at the signalized study intersections during the Saturday peak period and at the unsignalized study intersections during the weekday and Saturday peak periods. The new peak-hour counts are contained in **Appendix E**. The highest one-hour total or peak-hour traffic volume (as well as lane geometry and traffic controls) at each study intersection is shown on **Figure 4.A-2** for the weekday peak hours.

Intersection Level of Service Methods

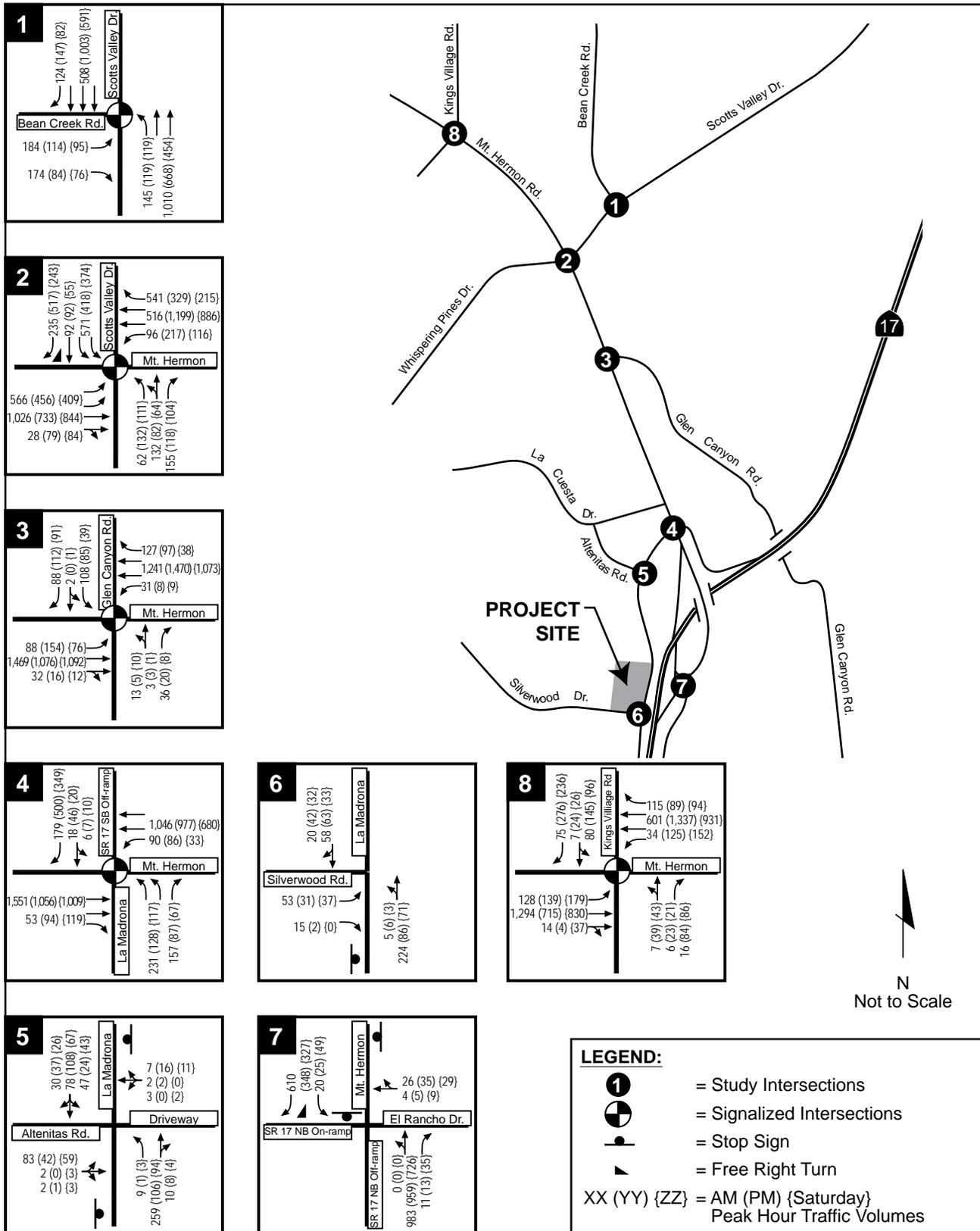
The operations of the key intersections were evaluated using Level of Service (LOS) calculations. Level of Service is a qualitative description of a roadway's operation, ranging from LOS A, or free-flow conditions, to LOS F, or over-saturated conditions. LOS E represents conditions that are at capacity. According to the *City of Scotts Valley General Plan* (1994), the level of service goal for intersections is LOS C, except for the intersection of Mt. Hermon Road and Scotts Valley Drive where LOS D is considered acceptable. Two methodologies were used to evaluate the key study intersections: one for the signalized intersections and another for the unsignalized intersections.

Signalized Intersections

For signalized intersections, the LOS methodology described in Chapter 16 of the *2000 Highway Capacity Manual* (HCM) was applied (TRB, 2000). This methodology evaluates a signalized intersection's operations based on the average control delay, which was calculated using the SYNCHRO analysis software and was correlated to the corresponding level of service as shown in **Table 4.A-1**.

Unsignalized Intersections

Unsignalized intersections with stop signs on the minor street approaches only were evaluated using the methodology presented in Chapter 17 of the *2000 Highway Capacity Manual*, using the SYNCHRO analysis software. Level of service is defined for the controlled movements at a two-way stop controlled intersection, not for the intersection as a whole. For stop sign controlled approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. Table 4.A-1 presents the range of stopped delay that corresponds to each LOS designation.



SOURCE: Fehr & Peers

Gateway South Retail Stores . 207755

Figure 4.A-2
Existing Traffic Controls Lane Geometries
and Peak-Hour Volumes

**TABLE 4.A-1
DEFINITIONS FOR INTERSECTION LEVEL OF SERVICE**

Unsignalized Intersections		Level of Service Grade	Signalized Intersections	
Description	Average Total Vehicle Delay (Seconds)		Average Control Vehicle Delay (Seconds)	Description
No delay for stop-controlled approaches.	≤10.0	A	≤10.0	Free Flow or Insignificant Delays: Operations with very low delay, when signal progression is extremely favorable and most vehicles arrive during the green light phase. Most vehicles do not stop at all.
Operations with minor delay.	>10.0 and ≤15.0	B	>10.0 and ≤20.0	Stable Operation or Minimal Delays: Generally occurs with good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average delay. An occasional approach phase is fully utilized.
Operations with moderate delays.	>15.0 and ≤25.0	C	>20.0 and ≤35.0	Stable Operation or Acceptable Delays: Higher delays resulting from fair signal progression and/or longer cycle lengths. Drivers begin having to wait through more than one red light. Most drivers feel somewhat restricted.
Operations with increasingly unacceptable delays.	>25.0 and ≤35.0	D	>35.0 and ≤55.0	Approaching Unstable or Tolerable Delays: Influence of congestion becomes more noticeable. Longer delays result from unfavorable signal progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop. Drivers may have to wait through more than one red light. Queues may develop, but dissipate rapidly, without excessive delays.
Operations with high delays, and long queues.	>35.0 and ≤50.0	E	>55.0 and ≤80.0	Unstable Operation or Significant Delays: Considered to be the limit of acceptable delay. High delays indicate poor signal progression, long cycle lengths and high volume to capacity ratios. Individual cycle failures are frequent occurrences. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
Operations with extreme congestion, and with very high delays and long queues unacceptable to most drivers.	>50.0	F	>80.0	Forced Flow or Excessive Delays: Occurs with oversaturation when flows exceed the intersection capacity. Represents jammed conditions. Many cycle failures. Queues may block upstream intersections.

SOURCE: Transportation Research Board, Special Report 209, *Highway Capacity Manual*, 2000.

Freeways

Freeway ramp operations were analyzed using the LOS methodology for merge/diverge ramp junctions described in Chapter 25 of the *2000 Highway Capacity Manual*. LOS is based on the vehicle density (passenger cars per lane mile per hour, or pc/mi/hr). Operations were analyzed using the Highway Capacity Software (HCS+) analysis software. The range of density for each level of service is presented in **Table 4.A-2**.

**TABLE 4.A-2
DEFINITIONS FOR FREEWAY RAMP JUNCTION (MERGE/DIVERGE)
LEVEL OF SERVICE (LOS)**

LOS	Maximum Density (PCE per hour per lane-mile) ^a
A	≤10.0
B	>10.0 and ≤20.0
C	>20.0 and ≤28.0
D	>28.0 and ≤35.0
E	>35.0
F	^b

^a PCE = Passenger car equivalents, determined by converting trucks, buses, and other vehicles to an equivalent number of passenger cars.

^b Demand traffic volume flow exceeds theoretical limits.

SOURCE: Transportation Research Board, Special Report 209, *Highway Capacity Manual*, 2000.

According to Caltrans' January 2006 *Transportation Concept Report for State Route 17 in District 5*, Caltrans strives to maintain LOS E along the SR 17 corridor. However, Caltrans' *Guide for the Preparation of Traffic Impact Studies* (December 2002) notes that Caltrans strives to maintain a target LOS on State highways at the transition between LOS C and D. Per direction from Caltrans District 5 staff, the LOS C/D threshold will be used for this analysis.

Existing Intersection Levels of Service

The existing lane configurations and the peak-hour turning movement volumes on Figure 4.A-2 were used to calculate the LOS for each of the study intersections during the AM, PM, and Saturday peak hours. The results of the existing intersection LOS analysis are presented in **Table 4A-3**, and the corresponding calculation sheets are contained in the technical appendices of the transportation impact analysis (**Appendix E**). The results indicate that all of the signalized and unsignalized intersections are currently operating at acceptable service levels during both weekday peak hours and the Saturday peak hour.

It is noted that the unsignalized intersection of Mt. Hermon Road / El Rancho Drive – SR 17 Northbound Ramp has an atypical configuration. The northbound approach is not stop-controlled, to allow vehicles exiting the freeway to proceed through the intersection without stopping; the westbound approach is stop-controlled, as is the southbound left-turn from Mt. Hermon Road to El Rancho Drive (southbound right-turn on to SR 17 northbound is yield-controlled). The

**TABLE 4.A-3
SUMMARY OF EXISTING INTERSECTION LEVEL OF SERVICE (LOS)**

Intersection		Traffic Control ^a	Peak Hour	Delay ^b (seconds)	LOS ^c
#1	Scotts Valley Drive / Bean Creek Road	Signal	AM	15.8	B
			PM	13.5	B
			SAT	15.8	B
#2	Mt. Hermon Road / Scotts Valley Drive	Signal	AM	38.5	D
			PM	45.6	D
			SAT	38.1	D
#3	Mt. Hermon Road / Glen Canyon Road	Signal	AM	15.8	B
			PM	19.8	B
			SAT	11.5	B
#4	Mt. Hermon Road / La Madrona Drive-SR 17 SB off-ramp	Signal	AM	23.4	C
			PM	23.9	C
			SAT	20.0	C
#5	La Madrona Drive / Altenitas Road	SSSC	AM	19.2	C
			PM	11.7	B
			SAT	11.4	B
#6	La Madrona Drive / Silverwood Road	SSSC	AM	11.3	B
			PM	9.8	A
			SAT	9.5	A
#7	Mt. Hermon Road / El Rancho Drive-SR 17 NB ramp	SSSC	AM	22.4	C
			PM	23.2	C
			SAT	19.7	C
#8	Mt. Hermon Road / Kings Village Road	Signal	AM	18.3	B
			PM	24.2	C
			SAT	23.6	C

^a Signal = intersection is controlled by a traffic signal; SSSC = Intersection is controlled by a stop-sign on the side-street approach.
^b For signalized, LOS and delay (seconds per vehicle) represent average overall intersection. For side-street stop-controlled intersections, LOS and delay (seconds per vehicle) represent worst movement.

SOURCE: Fehr & Peers, 2009.

westbound approach and southbound left-turning vehicles must yield to vehicles exiting the freeway. In order to analyze delays (and LOS) for the stop-controlled movements at this intersection, the southbound left-turn traffic was shifted to the eastbound approach, i.e., the northbound and southbound approaches are analyzed as uncontrolled, and the eastbound and westbound approaches are analyzed as stop-controlled.

Existing Freeway Ramp Junction Levels of Service

Freeway ramp merge or diverge operations on SR 17 were evaluated at the Mt. Hermon Road interchange because that would be a primary access point for project-generated traffic. The analysis evaluates ramp operations where they connect with the freeway mainline, either as a merge or a diverge section. SR 17 has two travel lanes in each direction in the vicinity of the project. The results of the existing intersection LOS analysis are presented in **Table 4.A-4**, and the corresponding calculation sheets are contained in the technical appendices of the transportation impact analysis (**Appendix E**). The results indicate that all of the ramps currently operate acceptably (at LOS C or better) during the peak hours.

**TABLE 4.A-4
SUMMARY OF EXISTING RAMP JUNCTION LEVEL OF SERVICE (LOS)
AT MT. HERMON ROAD INTERCHANGE**

Location and Direction	Peak Hour	Density ^a	LOS
Northbound Loop On-Ramp	AM	21.5	C
	PM	17.7	B
	SAT	16.9	B
Northbound Slip Off-Ramp	AM	25.3	C
	PM	24.0	C
	SAT	23.2	C
Southbound Slip On-Ramp	AM	21.9	C
	PM	20.1	C
	SAT	23.1	C
Southbound Slip Off-Ramp	AM	17.1	B
	PM	19.8	B
	SAT	20.7	C

^a Density = passenger cars per hour per lane-mile

SOURCE: Fehr & Peers, 2009.

Field Observations

In addition to the above-described calculated intersection LOS in accordance with HCM methodologies, field observations were conducted at all of the study intersections and on the freeway segments during the AM and PM peak hours. These observations were used to verify the calculated levels of service and to note unusual operating conditions.

Observations showed that the study intersections operate at levels consistent with the calculated LOS. Queues were observed for the through movements on Mt. Hermon Road during both peak hours, with the heaviest flows in the eastbound direction during the AM peak hour and westbound direction during the PM peak hour. During the PM peak hour, westbound vehicles occasionally queued back to Glen Canyon Road, but the queues typically cleared in one signal cycle. Although Mt. Hermon Road serves a substantial volume of traffic, no lengthy delays were observed during either peak hour, and traffic moved steadily between the freeway and Scotts Valley Drive.

The Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-ramp intersection operates at an acceptable level. During the PM peak hour, right-turning vehicles from the off-ramp onto Mt. Hermon Road were observed to queue around the corner of the off-ramp. However, the existing signal phasing of the intersection provides an overlap phase that minimizes delay for the queued vehicles. Additionally, the gaps provided by the through northbound vehicles on Mt. Hermon Road were long enough to allow some right turns on red. Occasional westbound queues were observed to spill back to the SR 17 overcrossing structure, but these queues generally cleared in one signal cycle.

During the peak periods, traffic on SR 17 at the Mt. Hermon Road interchange typically moves in uniform progression and experiences minor congestion. The primary travel directions of the

freeway are northbound in AM peak period and southbound in the PM peak period (as Santa Cruz County residents commute to jobs in San Jose and other South Bay Area cities via SR 17).

Regulatory Framework

This section identifies the policies related to the physical environment and that pertain to the project's potential effects to scenic vistas and resources, and visual quality and character.

California Department of Transportation (Caltrans)

Caltrans has authority over the state highway system, including mainline facilities and interchanges. Caltrans must be involved in and approve the planning and design of all improvements involving state highway facilities. State highway facilities in the project area include State Route 17 and State Route 9.

Local Plans and Policies

Scotts Valley General Plan

The Scotts Valley Circulation Element of the *General Plan* contains goals and policies that regulate visual resources in the proposed project area. The following goals and policies are applicable to the project with respect to transportation, circulation, and parking:

- CP-89* Pursue all available public and private sources of funding for transportation system development, improvement, and maintenance in order to minimize fiscal impacts on the City's general funds.
- CA-92* Require those benefitting from transportation improvements to pay a fair share of the costs.
- CA-94* Collect traffic mitigation fees from developers of new projects, based on the MSI study. Use these fees to develop designated transportation facilities.
- CA-111* Through the environmental review process consider mitigations for traffic impacts which encourage the use of public transit, and non-motorized vehicles.
- CA-113* Through the environmental review process proposed developments shall determine the need, if any, for mitigations beyond those identified in the MSI study and the timing of construction for needed improvements.
- CG-121* To provide for a public street and highway system capable of accommodating existing and projected needs of the planning area.
- CP-146* The City shall identify and improve congested and critical traffic locations.
- CA-150* Require that all intersections maintain a Level of Service "C", or better, except as noted in this plan.
- CP-151* Require new developments to identify traffic problem areas as a part of the monitoring program and condition projects to mitigate problems.

- CA-152 The City Engineer will require new development to provide traffic counts and LOS analysis based upon the City's formula and contribute fair share funding for improvements to the roadway system problem area.
- CP-165 The City shall plan for sidewalk construction as part of new development and improvement projects in appropriate areas.
- CA-166 As a part of the capital improvement program and new public or private roadway improvement projects, identify the need for and require the installation of sidewalks.
- CP-167 Adequate provision shall be made for pedestrian crossings at appropriate locations.
- CA-168 As part of the capital improvement program and new public or private roadway improvement projects, identify the need for and require installation of pedestrian signals and crosswalks, along streets and within parking lots.
- CP-193 The City shall require existing and new developments adjacent to Highway 17 to screen their parking, roof-top equipment, storage and loading areas to improve and enhance the views from the highway.
- CA-194 Implement enhancement programs contained herein for existing properties and require new developments to berm and landscape parking, storage, and loading areas to screen these improvements from Highway 17.
- CO-196 Encourage public and/or private transit services as viable transportation alternatives.
- CP-201 The City shall encourage new developments to provide for and promote transit use, where feasible.
- CA-202 New development should be required to provide fixed transit facilities such as bus shelters and pull-outs, consistent with anticipated demand. As a part of the environmental and permit processing, submit development plans to the Santa Cruz Transit District for review and incorporate transit facilities, as appropriate, per district standards.
- SP-468 The City shall require new development to provide adequate improvements for maximum fire protection.
- SA-469 All streets, roads and parking lots shall be designed, constructed and maintained according to the Uniform Fire code and City Roadway Standards.

Gateway South Specific Plan

The *Gateway South Specific Plan* contains objectives and policies that regulate circulation in the proposed project area. The following objectives and policies are applicable to the project with respect to transportation, circulation, and parking:

- Objective 7* Provide adequate, attractively designed and functional off-street parking facilities along with suitable facilities for public transit, bicycles, and pedestrians as an integral part of all proposed commercial land uses.

Policy 7.1 Parking areas shall be landscaped or otherwise visually screen in a manner which contributes to the overall visual character of the area.

Policy 7.2 Transit facilities, bikeways, and pedestrian paths shall be integrated into the design of all projects.

Impacts Analysis

Significance Criteria

For the purposes of this EIR (and consistent with Appendix G of the CEQA Guidelines), the project would be considered to result in a significant traffic and circulation impact if it would:

- 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 or congestion at intersections);
- Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access;
- Result in inadequate parking capacity; or
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Impacts at intersections were identified based on the operating standards for the City of Scotts Valley and Caltrans. As specified in the City's Circulation Element (action CA-150), the City maintains a minimum LOS C for intersections, except for the intersections of Mt. Hermon Road / Scotts Valley Drive and Scotts Valley Drive / Granite Creek Road, where LOS D is considered acceptable. Caltrans also strives to maintain a minimum LOS C/D on State highways.

A significant impact is identified for intersections (signalized or unsignalized) under the City's jurisdiction if the proposed project causes:

- Intersection operations to degrade from acceptable conditions (LOS C or D, or better depending on location) under Baseline Conditions to unacceptable conditions (LOS D, E or F, depending on location) under With Project Conditions; or
- For intersections already operating at unacceptable conditions (LOS D, E, or F depending on location), any increase in delay per vehicle.

A significant impact is identified for intersections (signalized or unsignalized) under Caltrans jurisdiction when:

- The addition of project traffic causes the intersection's level of service to degrade from LOS C or better to LOS D or worse; or

- Project traffic is added to an intersection already operating at LOS D or worse under Baseline Conditions.

A significant impact is identified for freeway ramp junctions based on Caltrans' impact criteria:

- The addition of project traffic causes the ramp junction's level of service to degrade from LOS C or better to LOS D or worse; or
- Project traffic is added to a ramp junction operating at LOS D or worse under Baseline Conditions.

When a significant impact is identified, it is City policy that mitigation measures be identified that would achieve an acceptable LOS (relevant to the location and jurisdiction). In cases where mitigation would improve operations and mitigate the project-generated traffic impact back to baseline conditions or better, but not achieve an acceptable LOS, the impact is considered a cumulative significant and unavoidable impacts.

The project would have a significant, though temporary, effect on the environment if it would result in interim significant impacts based on the criteria above during the construction period. For purposes of this analysis, the potential impacts resulting from phasing and staging of project construction, and cumulative construction, have been assessed.

Analysis Methodology

The transportation analysis was conducted in compliance with City of Scotts Valley and the Caltrans guidelines for typical weekday a.m. and p.m. peak commute hour conditions, as well as for the Saturday mid-day peak hour, at local intersections and on the regional roadway facilities. Current conditions with and without the proposed Project were used to judge direct project impacts. Cumulative traffic operating conditions, and the Project's contribution to those cumulative conditions, were analyzed on the basis of forecasts of 2018 conditions.

Planned Roadway Improvements

No planned or funded roadway improvements were identified for this analysis. That is, the roadway network is assumed to remain as it is under Existing Conditions.

Impacts and Mitigation Measures

Discussion

Comparison of the Proposed Project and the 2005 SEIR

Like the 2005 approved project, the proposed project would entail non-residential development in Planning Area B. The proposed project would construct a 143,000-square foot retail store on the project site. The proposed project would be similar in building floor area to the approved project which included a combined total of 148,000 square feet for an office building and fire station. Both projects propose to develop the more-level parcel of the area, retaining the upper slopes of

the parcel as permanent open space. In addition, both projects propose to develop a similar number of parking spaces, 517 spaces for the retail store in a two-level parking deck, and 550 spaces for the office building and fire station. The proposed project would be built on the parcel on the west side of La Madrona Drive, while only the 136,000 square foot office building was proposed for that same parcel 2005 and the 12,000 square-foot fire station was proposed for the “tear-drop” parcel on the east side of La Madrona Drive.⁴ Moreover, the proposed project would develop a retail store, as opposed to the approved office use.

Changes in Circumstances and Information since the 2005 SEIR

As reported in Chapter 1, *Introduction*, of this EIR, the overall circumstances and conditions for the current proposed retail project have not substantially changed from those that existed when the 2005 SEIR was prepared. The area surrounding the project site has not undergone substantial physical changes (i.e., any substantial new development or changes in infrastructure, circulation, public facilities, or natural resources) since preparation of the 2005 SEIR, although roadway traffic volumes have changed somewhat.

Summary of 2005 SEIR Impacts

The office development approved under the 2005 SEIR would generate approximately 1,680 daily vehicle trips, including 238 AM peak hour trips and 232 PM peak hour trips. This is substantially less than the proposed project, even though the proposed project would generate fewer AM peak hour trips (152 vehicle trips versus 238 vehicle trips). Because the office development would generate fewer overall trips, the findings of the 2005 SEIR were considerably different when compared to the proposed project.

The 2005 SEIR concluded that development of the office building could cause a significant impact at the Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp intersection, and would contribute to significant cumulative impacts at the Mt. Hermon Road / Scotts Valley Drive, Mt. Hermon Road / Glen Canyon Drive, and Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp intersections. Impacts to other area intersections, SR 17 ramp junctions, provision for site access, internal circulation, and onsite parking, and pedestrian, bicycle and transit traffic, would be less than significant. As described below (Impacts TRAN-1 through TRAN-9), the impact determinations, and identified mitigation measures, for the proposed project differ from those identified in the 2005 SEIR.

The 2005 SEIR identified the following mitigation measures:

2005 SEIR Mitigation Measure TR-1.1: At the Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp intersection, add a second left-turn lane on La Madrona Drive, and modify the signal phasing to provide an eastbound right-turn overlap phase.⁵

⁴ The fire station remains an approved use. However, the Scotts Valley Fire District has not identified funding for its construction.

⁵ This measure has been implemented in connection with development of the Scotts Valley Corners retail center. A reimbursement agreement is in place that will require the proposed Gateway South retail store project to pay a portion of the cost of this improvement.

2005 SEIR Mitigation Measure TR-9.1: At the Mt. Hermon Road / Scotts Valley Drive intersection, restripe the northbound approach (Whispering Pines Drive) to provide separate left-turn, through, and right-turn lanes; and modify the signal phasing configuration from split phasing to protected left-turn phasing for all four legs of the intersection.

2005 SEIR Mitigation Measure TR-9.2: At the Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp intersection, implement Mitigation Measure TR-1.1.

2005 SEIR Mitigation Measure TR-9.3: At the Mt. Hermon Road / Glen Canyon Drive intersection, add a separate right-turn lane on westbound Mt. Hermon Road.

Significance after Implementation of 2005 SEIR Mitigation: Less than Significant

The 2005 SEIR-identified mitigation measures would not be sufficient to mitigate the impacts of the proposed project.

Construction Impact

Impact TRAN-1: Project construction would result in temporary increases in truck traffic and construction worker traffic. (Significant)

Construction-generated traffic would be temporary, and therefore, would not result in any long-term degradation in operating conditions on roadways in the project locale. The impact of construction-related traffic would be a temporary and intermittent lessening of the capacities of streets in the project site vicinity because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles. However, given the proximity of the project site to regional roadways (i.e., SR 17 and Mt. Hermon Road), construction trucks would have relatively direct routes. Most construction traffic would be dispersed throughout the day. Thus, the temporary increase would not significantly disrupt daily traffic flow on roadways in the project site vicinity.

Project construction activities would generate off-site traffic that would include the initial delivery of construction vehicles and equipment to the project site, the daily arrival and departure of construction workers, and the delivery of materials throughout the construction period and removal of construction debris. Deliveries would include shipments of concrete, lumber, and other building materials for onsite structures, utilities (e.g., plumbing equipment and electrical supplies) and paving and landscaping materials.

Although the impact would be temporary, truck movements could have an adverse effect on traffic flow in the project site vicinity. The implementation of the following mitigation measures would reduce these impacts to less than significant levels.

Mitigation Measure TRAN-1: The construction contractor(s) shall develop a construction management plan for review and approval by the City of Scotts Valley. The plan shall include at least the following items and requirements to reduce, to the maximum extent feasible and traffic congestion during construction:

- A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes
- Identification of haul routes for movement of construction vehicles that would minimize impacts on motor vehicular, bicycle and pedestrian traffic, circulation and safety, and specifically to minimize impacts to the greatest extent possible on streets in the project area
- Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur
- Provisions for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project sponsor

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: New Impact, but Less than Significant with Mitigation

Near-Term Operation Impacts – Traffic at Intersections and Ramp Junctions

Project Trip Generation

The amount of traffic generated by the proposed project was estimated based on trip generation data published by the Institute of Transportation Engineers (ITE, 2008). ITE rates were applied to the square footage of the proposed retail space to estimate the number of vehicle trips. Some of the PM and Saturday peak-hour trips would be diverted-linked trips, where a driver on Mt. Hermon Road or SR 17 would divert from their normal path to the site and then continue to their original destination. These diverted-link trips were added to the study intersections in the vicinity of the project, but would not result in new traffic on other roadways in the area. No trip reduction was applied during the AM peak hour because a negligible number of diverted-link trips are expected to occur before 9:00 AM. The diverted-linked trips reduction of 25 percent for the PM and SAT peak hours was estimated based on the survey data presented the ITE *Trip Generation Handbook* (ITE, 2004). A diverted-link trips reduction of 10 percent of daily trips was applied.

As shown in **Table 4.A-5**, the proposed project is estimated to generate about 7,366 net new daily trips, 152 net new AM peak-hour trips (103 inbound and 49 outbound), 536 net new PM peak-hour trips (268 inbound and 268 outbound), and 793 net new Saturday peak-hour trips (404 inbound and 389 outbound).

Project Trip Distribution and Assignment

The project trip distribution defines the directions of approach and departure for project traffic. The distribution was prepared based on the existing travel patterns in the area, previous studies, the relative locations of complementary land uses, and the Association of Monterey Bay Area Governments (AMBAG) travel demand model. **Figure 4.A-3** illustrates the major directions of

**TABLE 4.A-5
PROJECT VEHICLE TRIP GENERATION
(FREE STANDING DISCOUNT STORE – ITE LAND USE CODE 815)**

	Size ^a	Weekday Daily	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Trip Generation Rates	143 ksf	57.24	0.72	0.34	1.06	2.50	2.50	5.00	3.77	3.62	7.39
Trip Generation (Unadjusted)		8,185	103	49	152	358	358	716	539	518	1,057
Diverted-Link Trips ^b		-819	--	--	--	-90	-90	-180	-135	-129	-264
Net New Trip Generation		7,366	103	49	152	268	268	536	404	389	793

^a ksf = 1,000 square feet of floor area.

^b Diverted-linked trips occurs when a driver on Mt. Hermon Road or SR 17 would divert from their normal path to the project site and then continue to their original destination. See text above for a description about how this trip reduction was applied to project trip generation.

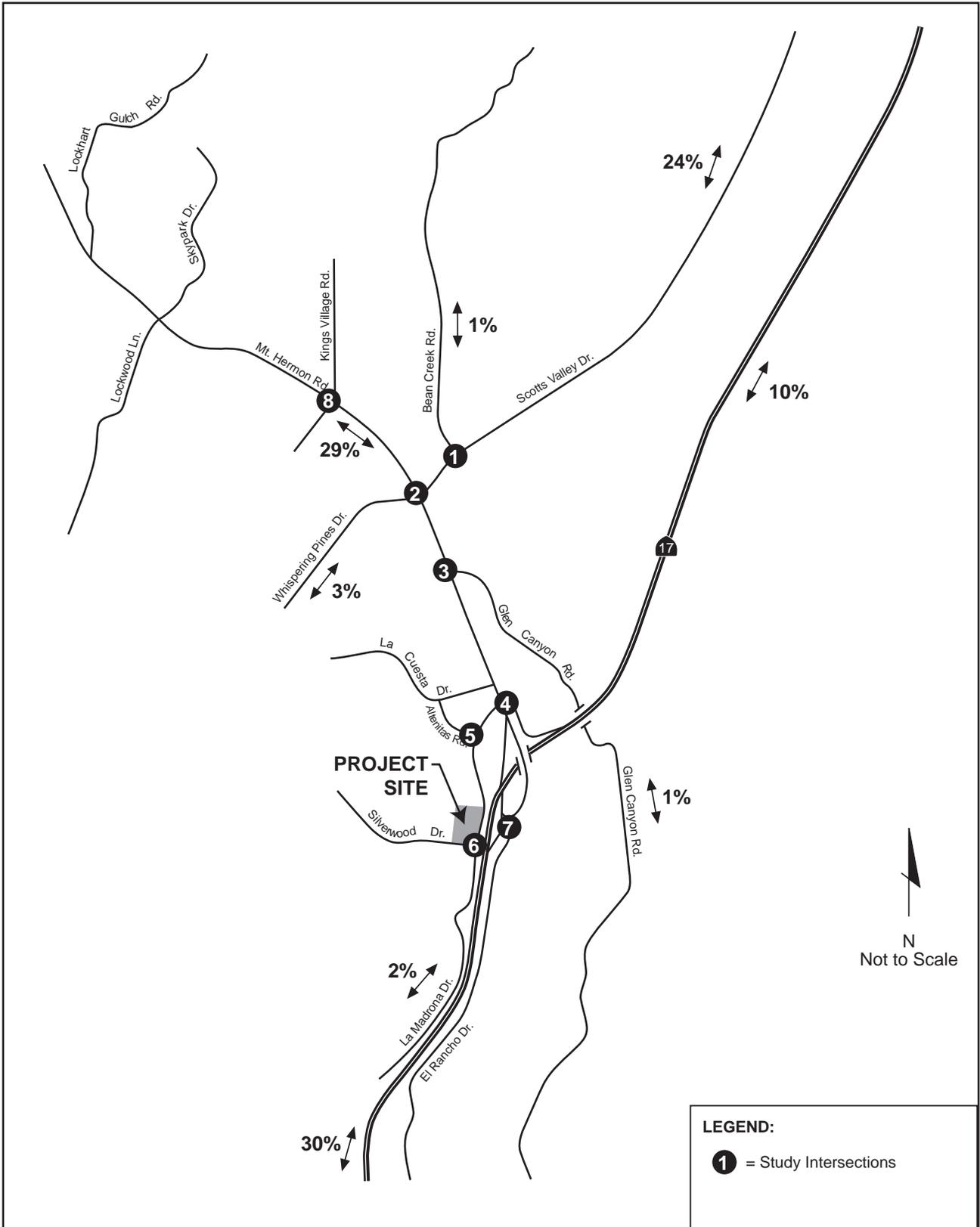
SOURCE: Fehr & Peers 2009, using ITE *Trip Generation* (8th Edition), 2008

approach and departure for project trips. A total of 57 percent of the project traffic would come from the communities to the west on Mt. Hermon Road and the residential areas of Scotts Valley. Approximately 30 percent would come from the south on SR 17 from Santa Cruz and adjacent communities, and about 10 percent would come from the north on SR 17. The remaining 3 percent would come from the east (Glen Canyon Road) and south (La Madrona Drive).

Trips generated by the proposed project were assigned to the roadway system based on the directions of approach and departure shown on Figure 4.A-3. Project-generated trips for the peak hours are shown on **Figure 4.A-4**, which shows that the project would add approximately 150 trips in each direction to Mt. Hermon Road between Glen Canyon Road and Scotts Valley Drive during the PM peak hour. Project trips were added to existing traffic volumes to estimate total volumes under Project Conditions as shown on **Figure 4.A-5**.

Impact TRAN-2: Operation of the proposed project would increase traffic at intersections in the project vicinity under existing plus project conditions. (Significant at intersections described in Impacts TRAN-2a to TRAN-2d)

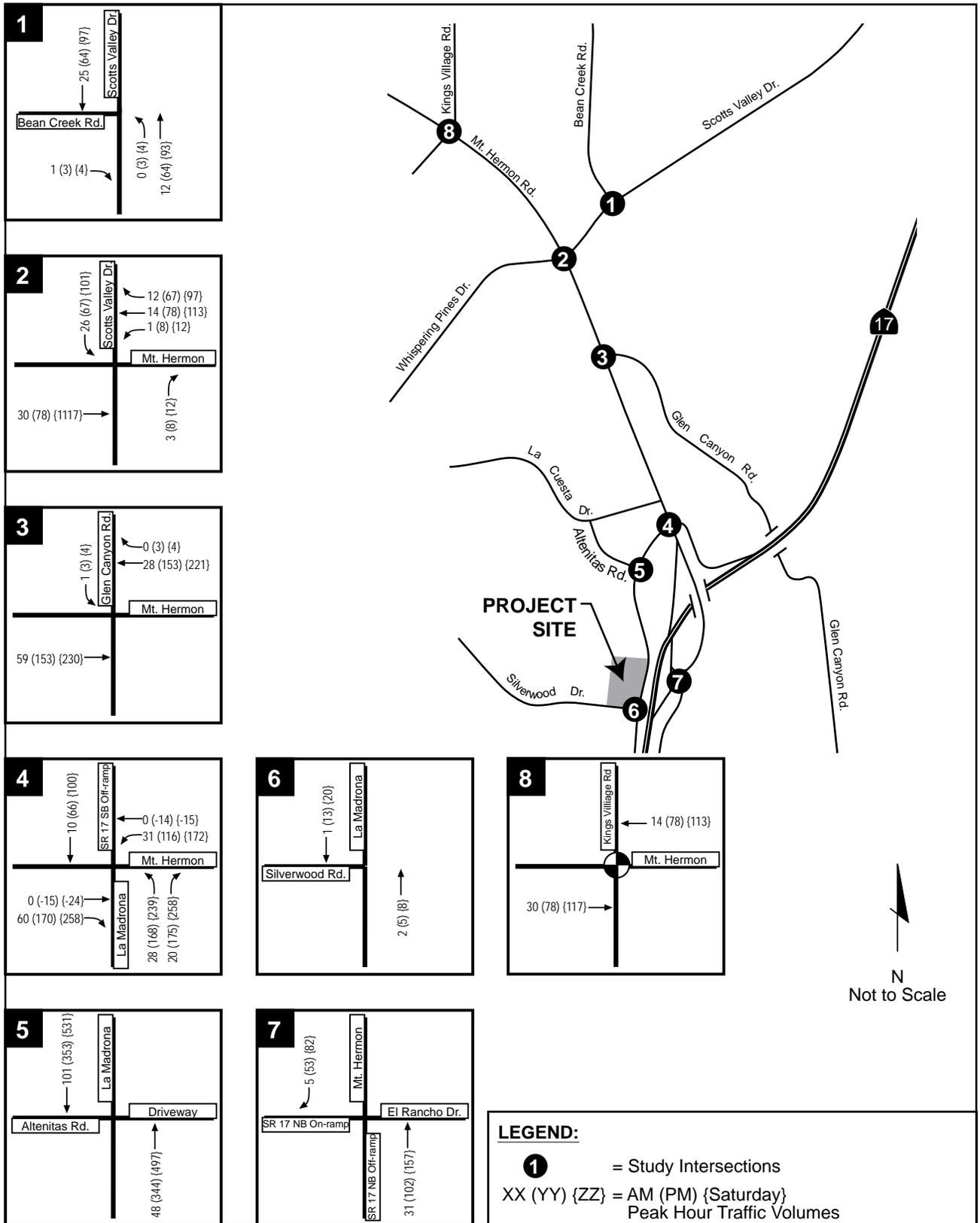
Intersection LOS calculations were conducted to evaluate intersection operations under Project Conditions. The results of the LOS analysis for Existing and Existing plus Project Conditions are summarized in **Table 4.A-6**. The corresponding LOS calculation sheets are contained in the technical appendices of the transportation impact analysis (**Appendix E**). Levels of service would remain acceptable after addition of project-generated traffic at four of the eight study intersections.



SOURCE: Fehr & Peers

Gateway South Retail Stores . 207755

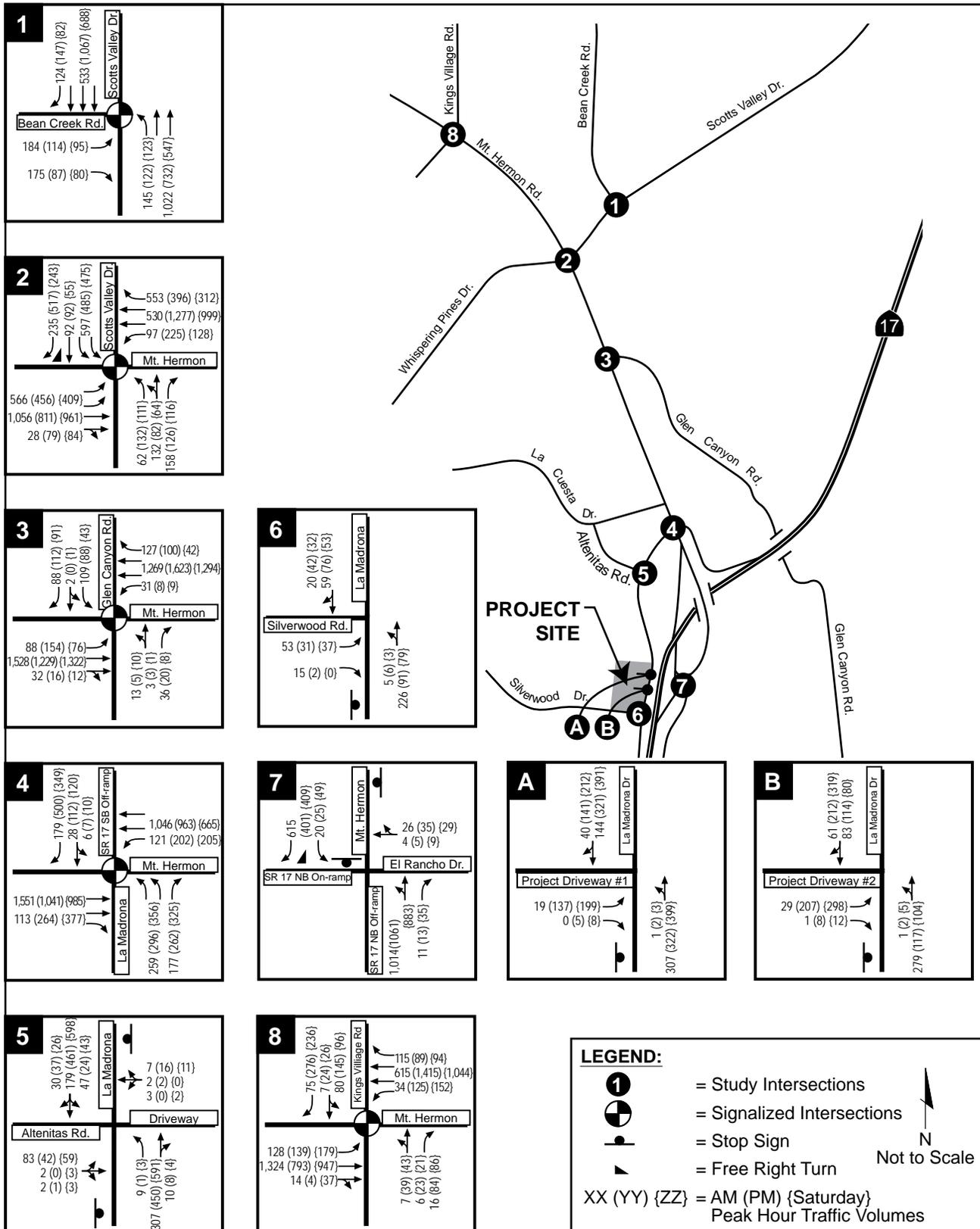
Figure 4.A-3
Project Trip Distribution



SOURCE: Fehr & Peers

Gateway South Retail Stores . 207755

Figure 4.A-4
Project Trip Assignment
(Includes Diverted Link Trips)



SOURCE: Fehr & Peers

Gateway South Retail Stores . 207755

Figure 4.A-5
Existing Plus Project Traffic Volumes

**TABLE 4.A-6
SUMMARY OF EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE (LOS)**

Intersection	Traffic Control ^a	Peak Hour	Existing		Existing Plus Project	
			Delay ^b (seconds)	LOS	Delay ^b (seconds)	LOS
#1 Scotts Valley Drive / Bean Creek Road	Signal	AM	15.8	B	15.8	B
		PM	13.5	B	13.7	B
		SAT	15.8	B	14.7	B
#2 Mt. Hermon Road / Scotts Valley Drive	Signal	AM	38.5	D	39.2	D
		PM	45.6	D	55.5	E
		SAT	38.1	D	44.3	D
#3 Mt. Hermon Road / Glen Canyon Road	Signal	AM	15.8	B	16.1	B
		PM	19.8	B	21.8	C
		SAT	11.5	B	11.9	B
#4 Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp	Signal	AM	23.4	C	25.3	C
		PM	23.9	C	32.1	C
		SAT	20.0	C	36.3	D
#5 La Madrona Drive / Altenitas Road	SSSC	AM	19.2	C	28.3	D
		PM	11.7	B	40.0	E
		SAT	11.4	B	90.5	F
#6 La Madrona Drive / Silverwood Road	SSSC	AM	11.3	B	11.3	B
		PM	9.8	A	10.0	A
		SAT	9.5	A	9.8	A
#7 Mt. Hermon Road / El Rancho Drive – SR 17 Northbound Ramp	SSSC	AM	22.4	C	23.2	C
		PM	23.2	C	26.6	D
		SAT	19.7	C	24.7	C
#8 Mt. Hermon Road / Kings Village Road	Signal	AM	18.3	B	18.6	B
		PM	24.2	C	24.3	C
		SAT	23.6	C	23.9	C

^a Signal = intersection is controlled by a traffic signal; SSSC = Intersection is controlled by a stop-sign on the side-street approach.

^b For signalized, LOS and delay (seconds per vehicle) represent average overall intersection. For side-street stop-controlled intersections, LOS and delay (seconds per vehicle) represent worst movement.

^c Significant impacts are shown in **bold**.

SOURCE: Fehr & Peers, 2009.

Impact TRAN-2a: The addition of project-generated traffic would degrade operations at the signalized intersection of Mt. Hermon Road / Scotts Valley Drive from an acceptable LOS D to an unacceptable LOS E during the PM peak hour. (Significant)

Mitigation Measure TRAN-2a: At the Mt. Hermon Road / Scotts Valley Drive intersection, add a second westbound (Mt. Hermon Road) left-turn lane; restripe the northbound approach (Whispering Pines Drive) to provide separate left-turn, through, and right-turn lanes; and modify the signal phasing configuration from split phasing to protected left-turn phasing for the northbound and southbound approaches (Whispering Pines Drive – Scotts Valley Drive), and add westbound (Mt. Hermon Road) and northbound (Whispering Pines Drive) right-turn overlap phases.⁶

After implementation of Mitigation Measure TRAN-2a, the intersection would operate at an acceptable LOS D during all three peak hours (see **Table 4.A-7**).

⁶ A reimbursement agreement will be considered by City Council that will enable the sponsor of the proposed Gateway South retail store project to be compensated for a portion of the cost of this improvement (Mt. Hermon Road Corridor Traffic Mitigations Study).

**TABLE 4.A-7
SUMMARY OF MITIGATED EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE (LOS)**

Intersection	Traffic Control ^a	Peak Hour	Existing Plus Project		Mitigated Existing Plus Project	
			Delay ^b (seconds)	LOS	Delay ^b (seconds)	LOS
#2 Mt. Hermon Road / Scotts Valley Drive	Signal	AM	39.2	D	44.0	D
		PM	55.5	E	49.8	D
		SAT	44.3	D	37.2	D
#4 Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp	Signal	AM	25.3	C	25.2	C
		PM	32.1	C	31.7	C
		SAT	36.3	D	31.6	C

^a Signal = intersection is controlled by a traffic signal.
^b For signalized, LOS and delay (seconds per vehicle) represent average overall intersection.
^c Significant impacts are shown in **bold**.

SOURCE: Fehr & Peers, 2009.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: New Impact, but Less than Significant with Mitigation

Impact TRAN-2b: The addition of project-generated traffic would degrade operations at the signalized intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp from an acceptable LOS C to an unacceptable LOS D during the Saturday peak hour. (Significant)

Mitigation Measure TRAN-2b: At the Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp intersection, add an eastbound right-turn overlap phase on Mt. Hermon Road.

After implementation of Mitigation Measure TRAN-2b, the intersection would operate at an acceptable LOS C during all three peak hours (see Table 4.A-7).

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: New Impact, but Less than Significant with Mitigation

Impact TRAN-2c: The addition of project-generated traffic would degrade operations on the eastbound approach at the unsignalized intersection of La Madrona Drive / Alenitas Road from an acceptable LOS C or better to an unacceptable LOS D or worse during the AM, PM and Saturday peak hours. (Significant)

At the unsignalized La Madrona Drive / Alenitas Road intersection, the eastbound approach would degrade to an unacceptable LOS under Project Conditions during the AM, PM and Saturday peak hours. A review of the peak-hour volume traffic signal warrant for the affected peak hours

under Project Conditions shows that the warrant would not be met, indicating that traffic volumes at this intersection would not meet the minimum peak-hour volume criteria necessary to justify installation of a traffic signal (Caltrans, 2003). The signal warrant worksheets are contained in the technical appendices of the transportation impact analysis (**Appendix E**).⁷ There is no feasible measure to mitigate the project impact.

Significance after Mitigation: Significant and Unavoidable

Comparison to 2005 SEIR Findings: New Significant Impact, Unmitigable

Impact TRAN-2d: The addition of project-generated traffic would degrade operations on the southbound approach at the unsignalized intersection of Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps from an acceptable LOS C to an unacceptable LOS D during the PM peak hour. (Significant)

At the unsignalized Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps intersection, the southbound approach would degrade to an unacceptable LOS during the PM peak hour (the AM and Saturday peak-hour LOS would remain acceptable). A review of the peak-hour volume traffic signal warrant for the affected peak hour under Project Conditions shows that the warrant would not be met, indicating that traffic volumes at this intersection would not meet the minimum peak-hour volume criteria necessary to justify installation of a traffic signal (Caltrans, 2003). The signal warrant worksheets are contained in the technical appendices of the transportation impact analysis (**Appendix E**).⁸ There is no feasible measure to mitigate the project impact.

Significance after Mitigation: Significant and Unavoidable

Comparison to 2005 SEIR Findings: New Significant Impact, Unmitigable

⁷ The use of peak-hour signal warrants is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. The traffic analysis presented in this document estimates future development-generated traffic compared against a sub-set (peak-hour warrant) of the standard traffic signal warrants recommended in the Federal Highway Administration's *Manual on Uniform Traffic Control Devices* and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced traffic engineer. The decision to install a signal should not be based solely upon the warrants because signals can lead to certain types of collisions. The City of Scotts Valley/Caltrans should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants, in order to prioritize and program intersections for signalization.

⁸ See Footnote 7, above, regarding application of signal warrant.

Impact TRAN-3: Operation of the proposed project would increase traffic at the SR 17 interchange with Mt. Hermon Road under existing plus project conditions. (Less than Significant)

Table 4.A-8 presents the freeway ramp junction levels of service for Existing and Project Conditions at the SR 17 interchange with Mt. Hermon Road. All ramps would continue operating at acceptable levels of service. Thus, the project’s impact to the freeway ramp junctions is considered less-than-significant.

**TABLE 4.A-8
SUMMARY OF EXISTING PLUS PROJECT RAMP JUNCTION
LEVEL OF SERVICE (LOS) AT MT. HERMON ROAD INTERCHANGE**

Location and Direction	Peak Hour	Existing		Existing Plus Project	
		Density ^a	LOS	Density ^a	LOS
Northbound Loop On-Ramp	AM	21.5	C	21.5	C
	PM	17.7	B	18.0	B
	SAT	16.9	B	17.3	B
Northbound Slip Off-Ramp	AM	25.3	C	25.6	C
	PM	24.0	C	24.8	C
	SAT	23.2	C	24.3	C
Southbound Slip On-Ramp	AM	21.9	C	22.1	C
	PM	20.1	C	20.7	C
	SAT	23.1	C	24.0	C
Southbound Slip Off-Ramp	AM	17.1	B	17.2	B
	PM	19.8	B	20.1	C
	SAT	20.7	C	21.1	C

^a Density = passenger cars per hour per lane-mile

SOURCE: Fehr & Peers, 2009.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Operation Impacts – Site Access, Circulation, and Parking

Site Access

Impact TRAN-4: Operation of the proposed project would require adequate provision for site access. (Less than Significant)

Access to the project site would be provided via two driveways on La Madrona Drive, spaced about 550 feet apart. Vehicles would enter the driveways, and turn into the lower level parking lot or continue up the ramp to the upper level parking lot. The store’s primary entrance would be on the upper level, with access via a pedestrian-only entry bridge over the south driveway. People parked on the lower level would use an elevator or the stairs to reach the upper level and enter the

store. This configuration, with a pedestrian-only bridge to access the store, would reduce the number of potential conflicts by separating the primary vehicle and pedestrian flows.

Due to the low existing and projected volumes on La Madrona Drive, the two side-street-stop controlled driveways would be adequate to serve project traffic. Sight distance from the proposed driveway entrances appears to be adequate, as well; however, sight distance at the north driveway should be confirmed once the site's engineering design is prepared.

Pedestrians on La Madrona Drive could access the site via the stairs or elevators at the lower level parking lot, which are located within 120 feet of the street. Bike racks should be located on the lower level as close as possible to the elevators and stairs (the current site plan does not show the location of bike racks).

The truck docks would be located on the west side of the site, and trucks would enter the site via the south driveway, and exit via the north driveway. To enter the south driveway from La Madrona Drive, trucks would have to make a wide turn and may temporarily encroach into the opposing lane. This is a common practice, and truck drivers would wait for an appropriate gap in traffic before making their turn. Given the relatively low traffic volumes and limited number of truck trips, no excessive delays are expected. Truck access as shown on the site plan would be adequate.

The project's impact associated with site access would be less than significant.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Vehicle Queuing Analysis

Impact TRAN-5: Operation of the proposed project would require additional queue storage. (Significant at the Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp intersection, described in Impacts TRAN-5a and TRAN-5b)

Minimal vehicle queues are expected at the project driveway on La Madrona Drive, as these approaches would remain uncontrolled. The project driveways would be stop-sign-controlled, and a maximum queues (95th percentile⁹) of one vehicle during the weekday AM and PM peak hours and two vehicles during the Saturday peak hour are expected. These vehicular queues would not interfere with adjacent land uses, including the fire station north of the project site on La Madrona Drive and the Hilton Hotel access driveway just south of Altenitas Drive. Also, the addition of the project would cause little delay to residents accessing the schools located south on La Madrona Drive, including Brook Knoll Elementary and La Madrona Day School. During the AM peak hour, when parents drop off children at the school, traffic accessing the Target site would be

⁹ The 95th percentile queues represent the queue length that would be exceeded only five percent of the time.

minimal, causing short delays (less than ten seconds in both directions). School pick-up generally occurs between 12:00 noon and 3:00 pm, before the PM peak traffic hour at the project site would occur. For a conservative estimate of delays on La Madrona Drive during school pick-up times, delays during the PM peak hour were reviewed, and delays would be less than 15 seconds in either direction, thus causing minimal inconvenience to drivers accessing the schools.

Vehicle queue lengths were also reviewed at the northbound and westbound approaches to the Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp intersection. Queue lengths were calculated based on the Synchro analysis. **Table 4.A-9** presents the projected queues and available storage lengths during near- and far-term scenarios, both with and without the proposed project. The westbound through movement currently has two lanes; the outer lane is 200 feet long, while the inner lane continues about 1,300 feet back to SR 17, for a total storage length of about 1,500 feet. The resulting queue lengths for each scenario for the westbound through movement are based on an equivalent single-lane queue.

**TABLE 4.A-9
SUMMARY OF 95th PERCENTILE QUEUING LENGTHS (FEET/LANE) AT
MT. HERMON ROAD / LA MADRONA DRIVE – SR 17 SOUTHBOUND OFF-RAMP**

Scenario	Peak Hour	Northbound		Westbound	
		Left Turn	Right Turn	Left Turn	Through ^a
<i>Storage Length (feet/lane)</i>		110	110	200	1,500
Existing	AM	134	64	151	906
	PM	81	50	130	918
	SAT	65	41	53	412
Existing Plus Project	AM	161	68	214	906
	PM	209	84	363	900
	SAT	220	88	339	402
Mitigated Existing Plus Project	AM	161	68	214	906
	PM	209	84	363	900
	SAT	208	86	280	410
Cumulative	AM	155	69	174	1,066
	PM	99	55	142	1,360
	SAT	92	50	75	672
Cumulative Plus Project	AM	182	73	246	1,066
	PM	196	88	371	1,396
	SAT	234	95	383	728
Mitigated Cumulative Plus Project	AM	184	73	260	920
	PM	200	88	352	1,132
	SAT	234	95	359	812

^a Westbound through movement, under existing conditions, has two lanes. The outer lane is 200 feet long, the inner lane continues back to SR 17. The storage length and queue lengths presented for this movement are equivalent to a single lane approach with 1,500 feet of storage (1,300 feet in the inner lane plus 200 feet in the outer lane)

Queues that exceed available storage length are highlighted in **bold text**

SOURCE: Fehr & Peers, 2009.

Impact TRAN-5a: The addition of project-generated traffic would substantially increase the queue of vehicles in the northbound left-turn lane at the intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp. (Significant)

Based on the queuing analysis presented in Table 4.A-9, queues for the northbound left-turn movement would exceed available storage lengths with the project in place under the near-term and cumulative scenarios by up to 125 feet. The project's impact associated with vehicle queuing would be significant. The queue for the northbound right-turn would not exceed the existing storage length.

Mitigation Measure TRAN-5a: To accommodate the project-generated increase in queuing length for the northbound left turn, the existing turn pockets would need to be lengthened to approximately 250 feet, which would create a two-lane approach on La Madrona Drive between Alatenitas Road and Mt. Hermon Road.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: New Impact, but Less than Significant with Mitigation

Impact TRAN-5b: The addition of project-generated traffic would substantially increase the queue of vehicles in the westbound left-turn lane at the intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp. (Significant)

For the westbound approach, the queues for the left-turn and through movements were reviewed. The queue for the westbound through movement would not adversely affect operations of the SR 17 / El Rancho Drive intersection, SR 17 ramp junction operations, or the SR 17 mainline; however, the queue would extend across the SR 17 overcrossing during all three peak periods. Thus, lengthening the westbound left-turn pocket to provide additional storage would not provide substantial benefit, as vehicles would be queued back beyond the overcrossing, unable to reach the westbound left-turn lane. In addition, there physically isn't available right-of-way on the overpass to allow widening. There is no feasible measure to mitigate the project impact.

Significance after Mitigation: Significant and Unavoidable

Comparison to 2005 SEIR Findings: New Significant Impact, Unmitigable

Parking

Impact TRAN-6: Operation of the proposed project would require adequate provision for onsite parking. (Less than Significant)

The proposed project would provide 517 parking spaces (per site plan dated February 13, 2009). The City of Scotts Valley Municipal Code (Chapter 17.44.030) requires provision of one parking space for every 250 gross square feet of floor area for retail sales uses, and one parking space per

1,000 square feet of floor area for storage facilities combined with commercial uses. The project would have a total retail floor space of 142,075 square feet, with 116,930 square feet dedicated to sales areas and 25,145 square feet dedicated to stocking areas.

Parking generation data published by the Institute of Transportation Engineers were also compared to ensure adequate onsite parking supply (ITE, 2004). ITE parking ratios are derived from surveys of similar facilities, and represent the parking demand observed primarily at suburban sites. The average ratios were increased by a 15-percent efficiency factor to convert the demand rates to supply rates, in order to minimize vehicle circulation as drivers search for the last few available spaces. For retail uses, ITE parking demand ratios are provided for both December and non-December peak parking periods, with December peaks associated with the holiday shopping season. **Table 4.A-10** presents a comparison of supply versus Code requirements, and supply versus demand for December and non-December peak periods.

**TABLE 4.A-10
SUMMARY OF PARKING ANALYSIS (PROPOSED SUPPLY COMPARED TO
CITY OF SCOTTS VALLEY MUNICIPAL CODE REQUIREMENTS AND TO PARKING DEMAND)**

Source	Size	Code and Demand Rates		Required Supply	Provided Stalls	Adequate (Y/N)?
		Spaces	Per Unit			
<i>Scotts Valley Municipal Code</i>						
Code Requirement - Sales Area	116,930 s.f.	1	250	468	491	Y
Code Requirement – Stocking Area	25,145 s.f.	1	1,000	25	25	Y
Total	142,075 s.f.			493	517	Y
<i>ITE Peak Parking Demand</i>						
December Peak Period	142,075 s.f.	1	195	729	517	N
Non-December Peak Period	142,075 s.f.	1	316	449	517	Y

^a ITE parking ratios are used to calculate peak demand. Ratios were increased by a 15 percent efficiency factor to represent recommended parking supply, to minimize vehicle circulation as drivers search for the last few available spaces.

SOURCES: Fehr & Peers, 2009, based on City of Scotts Valley Municipal Code (Chapter 17.44.030) and ITE, *Parking Generation*, 3rd Edition, 2004.

The proposed parking supply of 517 parking spaces would satisfy the City of Scotts Valley Code requirements for parking. ITE parking ratios for the non-December peak period also indicate a parking surplus (i.e., sufficient parking throughout most of the year). The ITE parking ratios for the December peak period indicate a 213-space deficit, and some shoppers would not be able to find a space on the site during the peak holiday shopping period. However, driver tolerance for finding an available space is higher during this period. Given the limited parking supply in the surrounding area, the store operator would need to prepare a parking plan to require store employees to park off-site during the peak holiday shopping period. This may require a use of a temporary shuttle service to transport employees, or an agreement with adjacent property owners to provide available spaces.

The City's Municipal Code does not provide bicycle parking requirements, but it is standard practice to provide bicycle parking at a rate of 5 percent of the vehicle parking spaces provided.¹⁰ This corresponds to parking for 26 bicycles, which should be provided as close as possible to the lower level elevator/stair access next to the store entrance.

Mitigation Measure TRAN-6: Prior to the issuance of grading or building permits, the project applicant would require the store operator to prepare a parking plan that directs store employees to park off-site during the peak holiday shopping period. The plan would be submitted to the Community Development Director for review and approval. This plan may require a use of a temporary shuttle service to transport employees, or an agreement with adjacent property owners to provide available spaces.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: New Impact, but Less than Significant with Mitigation

Operation Impacts – Pedestrian, Bicycle and Transit

Impact TRAN-7: Operation of the proposed project would increase pedestrian, bicycle and transit traffic in the project area. (Less than Significant)

The existing sidewalks and bike lanes on La Madrona Drive and Mt. Hermon Road encourage the use of walking and bicycling as access modes. The number of pedestrians accessing the proposed project site is anticipated to be low because of the limited transit services in the immediate area of the project site and the limited number of nearby homes along with few nearby retail facilities. Therefore, the current pedestrian facilities are considered adequate to accommodate pedestrian circulation. The existing bicycle facilities also are considered adequate to accommodate bicycles to and from the project site.

The current transit system does not serve La Madrona Drive and only provides a limited number of bus routes on Mt. Hermon Road. In addition, no bus stops are provided in the vicinity of the project site on Mt. Hermon Road. The project is expected to generate a limited number of new riders on the transit system. A conservative estimate of five percent of vehicle trips was used to estimate the number of new riders at a maximum of about 30 new riders in the peak hour. Routes 35 and SR 17 Express provide service near the project site and operate on 15- to 30-minute headways; thus, no more than 5 riders are expected to use any given bus during the peak hour, and therefore, the project would have a less-than-significant impact on the transit system. The final site plan should be designed to allow for a future bus stop including bench, shelter or other amenities.

Mitigation: None required

¹⁰ Based on model Bicycle Parking Ordinance from the City of San Jose.

Comparison to 2005 SEIR Findings: No New Impact or Changes

Cumulative (2018) Impacts – Traffic at Intersections and Ramp Junctions

No Project Conditions

Future increases in regional traffic were estimated using forecasts from the travel demand model maintained by the Association of Monterey Bay Area Governments (AMBAG). This model includes land use and roadway network data for Year 2000 and Year 2030 conditions. The AMBAG travel demand model shows an increase of approximately 0.5 to 0.6 percent annual growth from 2000 to 2030 for the AM and PM peak hours, and a decrease in traffic along SR 17 during those same peak hours. To present a conservative analysis, an annual growth factor of 0.6 percent to the year 2018 (ten years from Existing Conditions) was used to increase existing traffic volumes along SR 17, Mt. Hermon Road, and Scotts Valley Drive. The same annual growth factor was applied to La Madrona Drive because it continues to the City of Santa Cruz, parallel to SR 17.

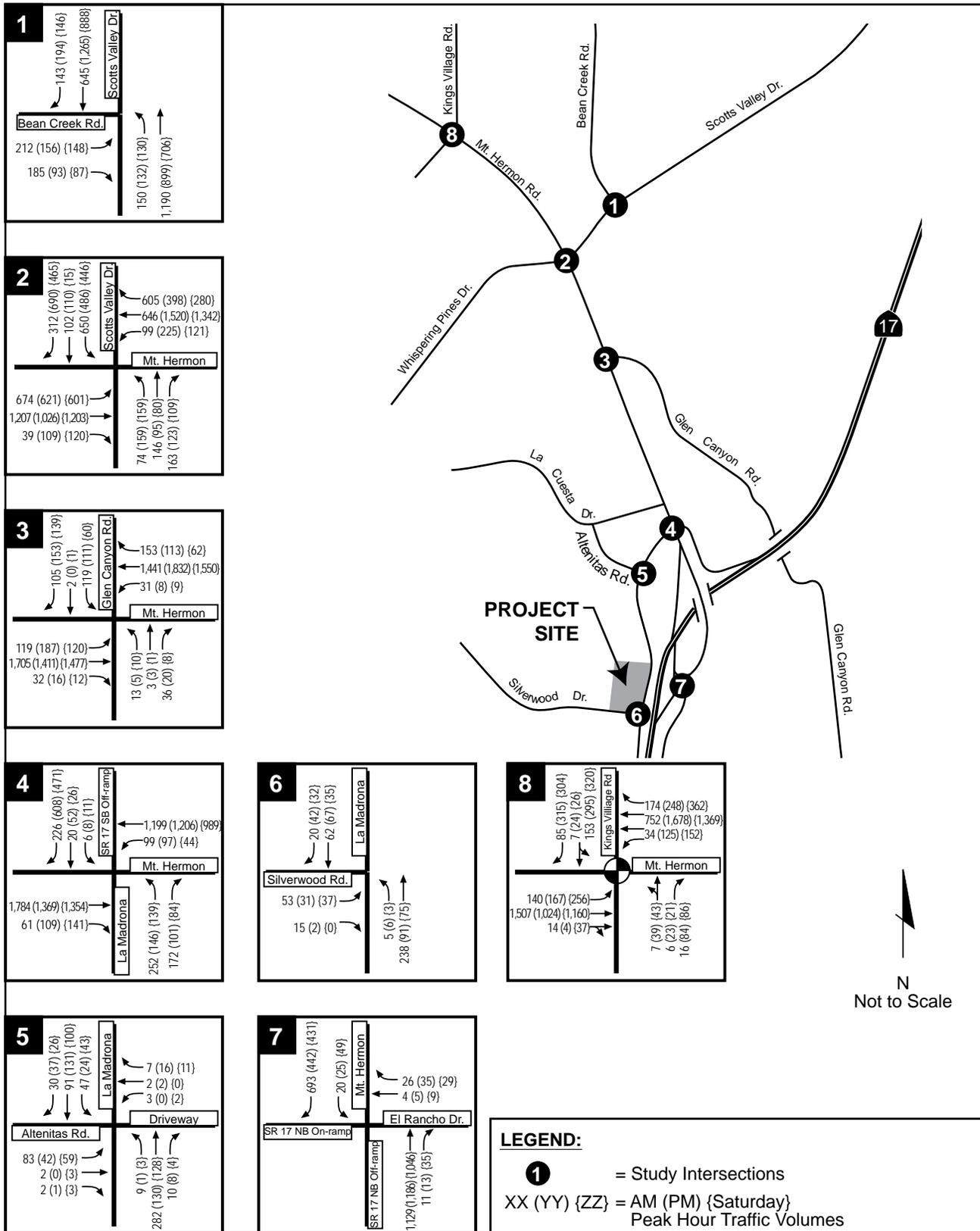
The traffic volumes for Cumulative Conditions were estimated by adding existing volumes (with the applied growth rate) and traffic estimates for approved (but not yet constructed) and pending projects in the vicinity of the site (see the technical appendices of the transportation impact analysis (**Appendix E**). The approved developments analyzed in this study are also consistent with the *Scotts Valley Town Center Specific Plan EIR (2008)*.

Trips from most land uses of the approved projects were estimated based on trip rates in ITE's *Trip Generation (7th Edition)* and assigned to the roadway network.¹¹ For specialty retail land uses, San Diego Association of Governments (SANDAG) trip generation rates (2002) were used for the AM peak hour, and a 25 percent reduction was applied to the PM peak-hour trips to account for pass-by and diverted link trips. Pass-by and diverted trips represent traffic from people already on the roadway network who visit a project site en route to another destination. Approved and pending project trips were added to existing traffic volumes (with the applied growth rate) and the resulting Cumulative Baseline traffic volumes are shown on **Figure 4.A-6**.

Plus Project Conditions

The traffic generated by the proposed project, as described on page 4.A-17, was added to the Cumulative Baseline traffic volumes, and represent Cumulative Plus Project Conditions volumes, presented on **Figure 4.A-7**.

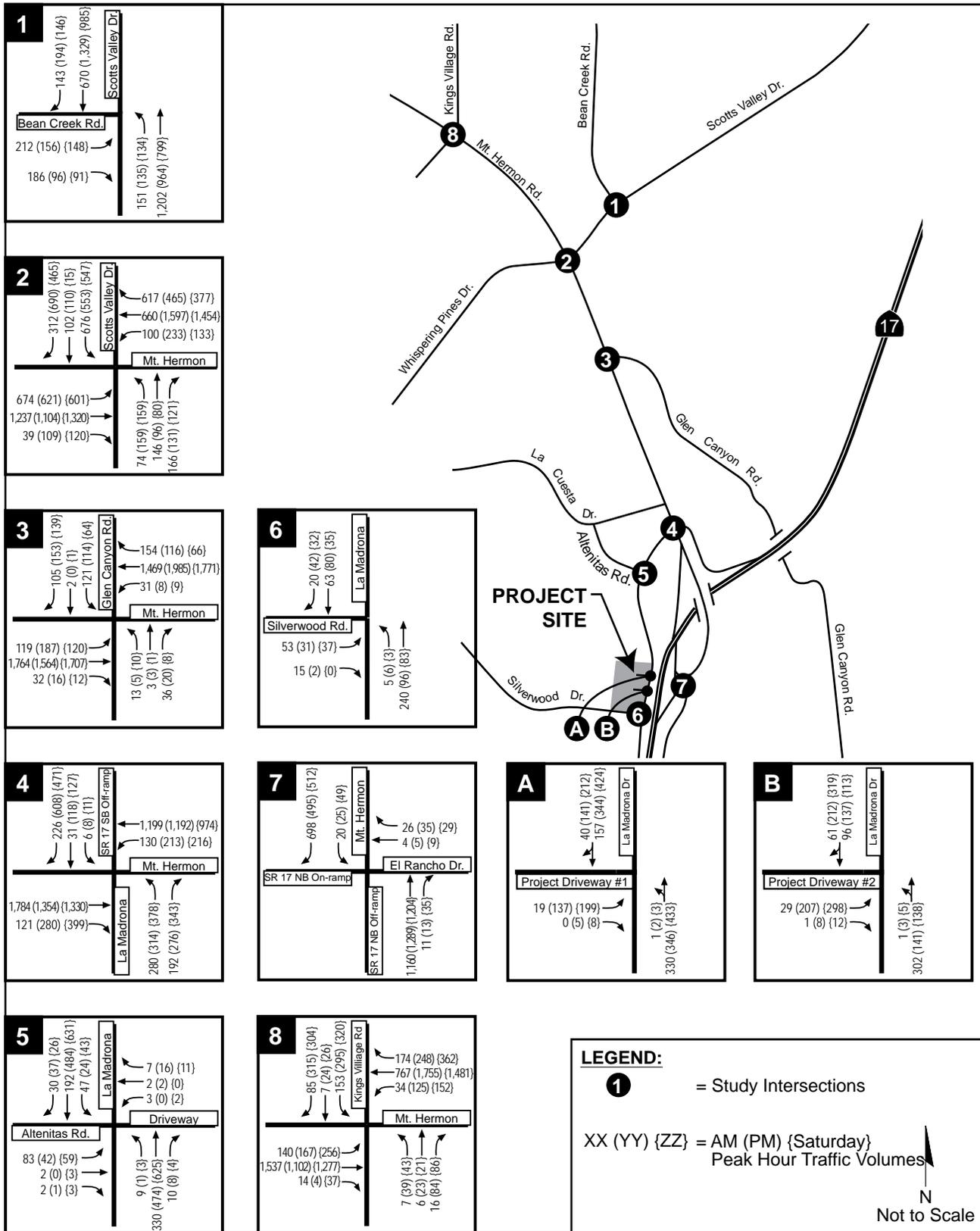
¹¹ Trip generation rates from the 7th Edition of ITE's *Trip Generation* were used, instead of the current 8th Edition, because that edition was current at the time the Notice of Preparation for the Environmental Impact Report was released. It is noted that most trip rates used in the approved and pending project trip generation did not change between the 7th and 8th Editions.



SOURCE: Fehr & Peers

Gateway South Retail Stores . 207755

Figure 4.A-6
Cumulative Conditions
Peak-Hour Volumes



SOURCE: Fehr & Peers

Gateway South Retail Stores . 207755

Figure 4.A-7
 Cumulative Plus Project
 Peak-Hour Volumes

Impact TRAN-8: Operation of the proposed project would increase traffic at intersections in the project vicinity under Cumulative (2018) Plus Project conditions. (Significant at intersections described in Impacts TRAN-8a to TRAN-8e)

Levels of service were calculated for all of the study intersections using the Cumulative traffic volumes and the existing intersection lane configurations and traffic control devices. **Table 4.A-11** presents the LOS results under Cumulative Conditions for both No Project and Plus Project Conditions. The corresponding LOS calculation sheets are contained in the technical appendices of the transportation impact analysis (**Appendix E**). Levels of service would remain acceptable after addition of project-generated traffic at three of the eight study intersections.

**TABLE 4.A-11
SUMMARY OF CUMULATIVE (2018) PLUS PROJECT INTERSECTION LEVEL OF SERVICE (LOS)**

Intersection	Traffic Control ^a	Peak Hour	Cumulative Baseline		Cumulative Plus Project	
			Delay ^b (seconds)	LOS	Delay ^b (seconds)	LOS
#1 Scotts Valley Drive / Bean Creek Road	Signal	AM	22.7	C	22.7	C
		PM	15.3	B	15.3	B
		SAT	15.2	B	15.2	B
#2 Mt. Hermon Road / Scotts Valley Drive	Signal	AM	59.4	E	60.3	E
		PM	92.1	F	101.4	F
		SAT	64.6	E	88.3	F
#3 Mt. Hermon Road / Glen Canyon Road	Signal	AM	18.1	B	18.3	B
		PM	25.8	C	29.7	C
		SAT	16.7	B	18.9	B
#4 Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp	Signal	AM	27.6	C	29.1	C
		PM	37.0	D	49.2	D
		SAT	35.1	D	60.9	E
#5 La Madrona Drive / Altenitas Road	SSSC	AM	20.9	C	31.7	D
		PM	12.4	B	46.0	E
		SAT	12.2	B	123.9	F
#6 La Madrona Drive / Silverwood Road	SSSC	AM	11.5	B	11.5	B
		PM	9.9	A	10.1	B
		SAT	9.6	A	9.8	A
#7 Mt. Hermon Road / El Rancho Drive – SR 17 Northbound Ramp	SSSC	AM	26.9	D	28.1	D
		PM	32.0	D	37.6	E
		SAT	32.4	D	44.1	E
#8 Mt. Hermon Road / Kings Village Road	Signal	AM	23.7	C	23.7	C
		PM	38.2	D	44.5	D
		SAT	40.5	D	42.0	D

^a Signal = intersection is controlled by a traffic signal; SSSC = Intersection is controlled by a stop-sign on the side-street approach.

^b For signalized, LOS and delay (seconds per vehicle) represent average overall intersection. For side-street stop-controlled intersections, LOS and delay (seconds per vehicle) represent worst movement.

^c Significant impacts are shown in **bold**.

SOURCE: Fehr & Peers, 2009.

Impact TRAN-8a: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / Scotts Valley Drive would degrade the prevailing unacceptable operations during the AM, PM and Saturday peak hours. (Significant)

Mitigation Measure TRAN-8a: At the Mt. Hermon Road / Scotts Valley Drive intersection, add a second westbound (Mt. Hermon Road) left-turn lane; restripe the northbound approach (Whispering Pines Drive) to provide separate left-turn, through, and right-turn lanes; and modify the signal phasing configuration from split phasing to protected left-turn phasing for the northbound and southbound approaches (Whispering Pines Drive – Scotts Valley Drive), and add westbound (Mt. Hermon Road) and northbound (Whispering Pines Drive) right-turn overlap phases.

After implementation of Mitigation Measure TRAN-6a, the intersection would operate at an acceptable LOS D during the AM peak hour, but would remain at an unacceptable LOS during the PM and Saturday peak hours (see **Table 4.A-12**). The improvements would reduce delays to levels lower than under Cumulative Baseline conditions, but would not be sufficient to meet the City’s LOS D standard during the PM and Saturday peak hours.

**TABLE 4.A-12
SUMMARY OF MITIGATED CUMULATIVE (2018) PLUS PROJECT
INTERSECTION LEVEL OF SERVICE (LOS)**

Intersection	Traffic Control ^a	Peak Hour	Cumulative Plus Project		Mitigated Cumulative Plus Project	
			Delay ^b (seconds)	LOS	Delay ^b (seconds)	LOS
#2 Mt. Hermon Road / Scotts Valley Drive	Signal	AM	60.3	E	44.6	D
		PM	101.4	F	79.9	E
		SAT	88.3	F	63.4	E
#4 Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp	Signal	AM	29.1	C	27.4	C
		PM	49.2	D	37.2	D
		SAT	60.9	E	37.9	D
#8 Mt. Hermon Road / Kings Village Road	Signal	AM	23.7	C	20.0	B
		PM	44.5	D	27.8	C
		SAT	42.0	D	39.7	D

^a Signal = intersection is controlled by a traffic signal.
^b For signalized, LOS and delay (seconds per vehicle) represent average overall intersection.
^c Significant impacts) are shown in **bold**.

SOURCE: Fehr & Peers, 2009.

Significance after Mitigation: Significant and Unavoidable

Comparison to 2005 SEIR Findings: New Significant Impact, Unmitigable

Impact TRAN-8b: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp would degrade the prevailing acceptable operations during the PM and Saturday peak hours. (Significant)

Mitigation Measure TRAN-8b: At the Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp intersection, add a second southbound right-turn lane to the SR 17 off-ramp, and add an eastbound right-turn overlap phase on Mt. Hermon Road. The project sponsor would be required to fund its fair share of the cost of this measure, as determined in the **Mt. Hermon Road Corridor Traffic Mitigations** study.

After implementation of Mitigation Measure TRAN-8b, the intersection would continue to operate at an unacceptable LOS during the PM and Saturday peak hours (see Table 4.A-12). The improvements would reduce delays to levels lower than under Cumulative Baseline conditions, but would not be sufficient to meet the City's LOS C standard during the PM and Saturday peak hours.

Significance after Mitigation: Significant and Unavoidable

Comparison to 2005 SEIR Findings: New Significant Impact, Unmitigable

Impact TRAN-8c: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / Kings Village Road would degrade the prevailing acceptable operations during the PM and Saturday peak hours. (Significant)

Mitigation Measure TRAN-8c: At the Mt. Hermon Road / Kings Village Road intersection, restripe the southbound (Kings Village Road) approach to provide a left-turn lane and a shared through / right-turn lane.

After implementation of Mitigation Measure TRAN-6c, the intersection would operate at an acceptable LOS C during the PM peak hour, but would remain at an unacceptable LOS during the Saturday peak hour (see Table 4.A-12). The improvements would reduce delays to levels lower than under Cumulative Baseline conditions, but would not be sufficient to meet the City's LOS D standard during the Saturday peak hour.

Significance after Mitigation: Significant and Unavoidable

Comparison to 2005 SEIR Findings: New Significant Impact, Unmitigable

Impact TRAN-8d: The addition of project-generated traffic to Cumulative Baseline volumes on the eastbound approach at the unsignalized intersection of La Madrona Drive / Althenitas Road would degrade the prevailing acceptable LOS during the AM, PM and Saturday peak hours. (Significant)

At the unsignalized La Madrona Drive / Althenitas Road intersection, the eastbound approach would degrade to an unacceptable LOS under Cumulative Plus Project Conditions during all three peak hours. A review of the peak-hour volume traffic signal warrant for the affected peak hours under Cumulative Plus Project Conditions shows that the warrant would not be met, indicating that traffic volumes at this intersection would not meet the minimum peak-hour volume criteria necessary to justify installation of a traffic signal (Caltrans, 2003). The signal warrant worksheets are contained in the technical appendices of the transportation impact analysis (**Appendix E**).¹² There is no feasible measure to mitigate the project impact.

Significance after Mitigation: Significant and Unavoidable

Comparison to 2005 SEIR Findings: New Significant Impact, Unmitigable

Impact TRAN-8e: The addition of project-generated traffic to Cumulative Baseline volumes on the southbound approach at the unsignalized intersection of Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps would worsen the prevailing unacceptable LOS during AM, PM and Saturday peak hours. (Significant)

At the unsignalized Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps intersection, the prevailing unacceptable LOS on the southbound approach would worsen during all three peak hours. A review of the peak-hour volume traffic signal warrant for the affected peak hour under Cumulative Plus Project Conditions shows that the warrant would not be met, indicating that traffic volumes at this intersection would not meet the minimum peak-hour volume criteria necessary to justify installation of a traffic signal (Caltrans, 2003). The signal warrant worksheets are contained in the technical appendices of the transportation impact analysis (**Appendix E**).¹³ There is no feasible measure to mitigate the project impact.

Significance after Mitigation: Significant and Unavoidable

Comparison to 2005 SEIR Findings: New Significant Impact, Unmitigable

¹² See Footnote 7, page 4.A-24, regarding application of signal warrant.

¹³ See Footnote 7, page 4.A-24, regarding application of signal warrant.

Impact TRAN-9: Operation of the proposed project would increase traffic at the SR 17 interchange with Mt. Hermon Road under existing plus project conditions. (Less than Significant)

Table 4.A-13 presents the freeway ramp junction levels of service for Cumulative Baseline and Cumulative Baseline Plus Project Conditions at the SR 17 interchange with Mt. Hermon Road. All ramps would continue operating at acceptable levels of service. Thus, the project’s impact to the freeway ramp junctions is considered less-than-significant.

**TABLE 4.A-13
SUMMARY OF CUMULATIVE PLUS PROJECT RAMP JUNCTION
LEVEL OF SERVICE (LOS) AT MT. HERMON ROAD INTERCHANGE**

Location and Direction	Peak Hour	Cumulative Baseline		Cumulative Baseline Plus Project	
		Density ^a	LOS	Density ^a	LOS
Northbound Loop On-Ramp	AM	22.3	C	22.4	C
	PM	18.7	B	19.0	B
	SAT	18.1	B	18.4	B
Northbound Slip Off-Ramp	AM	26.6	C	26.9	C
	PM	26.0	C	26.8	C
	SAT	26.3	C	27.4	C
Southbound Slip On-Ramp	AM	22.9	C	23.0	C
	PM	22.1	C	22.7	C
	SAT	25.2	C	26.0	C
Southbound Slip Off-Ramp	AM	17.8	B	17.9	B
	PM	21.2	C	21.5	C
	SAT	22.1	C	22.5	C

^a Density = passenger cars per hour per lane-mile

SOURCE: Fehr & Peers, 2009.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

References – Transportation and Circulation

California Department of Transportation (Caltrans), *Manual on Uniform Traffic Control Devices (MUTCD)*, Part 4 (Traffic Signals), 2003.

Institute of Transportation Engineers (ITE), *Trip Generation*, 8th Edition, 2008.

Institute of Transportation Engineers (ITE), *Parking Generation*, 3rd Edition, 2004.

Institute of Transportation Engineers (ITE), *Trip Generation Handbook*, 2nd Edition, 2004.

Institute of Transportation Engineers (ITE), *Trip Generation*, 7th Edition, 2003.

San Diego Association of Governments (SANDAG), *Traffic Generators*, 2002.

Santa Cruz Metropolitan Transit District (SCMTD), Maps and Schedules, effective, June 11, 2009.

Scotts Valley, 1994. *Scotts Valley General Plan (1994)*.

Transportation Research Board (TRB), *2000 Highway Capacity Manual*, 2000.

B. Aesthetics

This section discusses the existing visual conditions at the project site and in the project site vicinity, and considers the potential visual effects of the proposed project with respect to visual character, views, and light and glare. This visual impact analysis is based on field observations of the project site and vicinity, and project plans. This section also includes photographs that show existing condition on the site, and renderings of the proposed project prepared by the project architect from selected viewpoint locations.

An evaluation of a project's potential visual quality impacts requires analysis of the type and degree of change in existing visual attributes and patterns that could result from implementation of the project. It is important to note that perceptions of changes in the physical characteristics of a site may differ with respect to issues of importance and value, and are therefore subjective. Moreover, defining "scenic vistas and resources" and "visual character" can be highly subjective. The following analysis describes the characteristics of the project and its surroundings, noting elements that are most commonly considered to have high scenic value or visual prominence based on distinguishing physical characteristics.

The project area for visual resources encompasses the landscapes directly affected by facilities proposed by the project and the surrounding areas that would be within view of the project actions.

Setting

Visual Character

The project site is a 17.62-acre irregularly shaped parcel located on the west side of State Route (SR) 17, on La Madrona Drive. The site consists of nearly level to gently sloping land along La Madrona Drive, rising to a steep hillside that is largely covered with mature Monterey pine and cypress trees. The portion of the project site that would be developed is currently an open, grassy undeveloped meadow of native and non-native grasses sprinkled with small trees and scrub. **Figure 4.B-1** presents an aerial view of the project site.

As discussed in more detail in Section 4.C, *Land Use*, the project vicinity is characterized by a mix of land uses including commercial and residential. The visual character of the areas reflects this land use mix. The project site is located on the edge of an urban setting, with the area to the north being more developed than the areas to the south and west.

The vegetative features on the project site serve as a continuation of the natural landscaping that exists in the surrounding area. As discussed in detail in Section 4.D, *Biological Resources*, the site contains a small variety of vegetation communities and wildlife habitats. The most visually distinctive element of the site is the mixed coniferous forest at the upper western slope of the site. A small stand of coastal redwood trees is located near the northern boundary, south of the adjacent Hilton Hotel. Ponderosa pine trees and native live oaks also exist in this conifer community.



Figure 4.B-1
Proposed Project Site (Aerial View)

Of all the manmade features visible in the project area, the most visually prominent is the three-story, 124,000 square foot Hilton Hotel located immediately to the north of the project site, containing a terraced parking lot for approximately 100 vehicles. The hotel rooftop and portions of its south-facing façade are visible north of the project site. A cluster of coniferous trees obscures the back portion of the hotel and other vegetation and natural sloping completely obscures the hotel's front parking spaces.

SR 17, a four-lane limited access freeway, sits roughly 20 to 30 feet below the project site to the east. A full access interchange with Mt. Hermon Road is visible generally to the northeast.

Light and Glare

Consistent with the commercial and residential developments in the project vicinity, the sources of light and glare near the project site are vehicle headlights on public roadways, luminars in parking lots and along public streets, building and parking security lighting, and SR 17. Vehicle headlights on public roadways and on adjacent properties emit temporary lighting in their direction of travel. The project site itself appears generally unlit, as do the undeveloped areas to the south and west. Overall, lighting levels are typical for the level of commercial and residential development in the immediate vicinity.

Definitions Related to Visual Resources

Visual resources consist of the landforms, vegetation, rock and water features, and cultural modifications that create the visual character and sensitivity of a landscape. A number of factors are documented for the existing visual resources of the project area in order to determine the manner in which those resources or characteristic landscapes may be modified by the project. The primary existing visual condition factors considered in this study are defined below and include: Visual Quality, Viewer Types and Volumes, Viewer Exposure, and Visual Sensitivity.

Visual Quality is defined as the overall visual impression or attractiveness of an area as determined by the particular landscape characteristics, including landforms, rock forms, water features, and vegetation patterns. The attributes of variety, vividness, coherence, uniqueness, harmony and pattern contribute to the overall visual quality of an area. For the purposes of this EIR, visual quality is defined according to three levels:

- *Indistinctive, or industrial* – defined as generally lacking in natural or cultural visual resource amenities typical of the region
- *Representative* – defined as visual resources typical or characteristic of the region's natural and/or cultural visual amenities
- *Distinctive* – defined as visual resources that are unique or exemplary of the region's natural or cultural scenic amenities

Viewer Types and Volumes of use pertain to the types and amounts of use that various land uses receive. Land uses that derive value from the quality of their settings are considered potentially

sensitive to changes in visual setting conditions. Land uses within the project area that may be sensitive to change in visual conditions include major transportation systems such as designated scenic highways, designated scenic roads, and designated park, recreation and natural areas.

Viewer Exposure addresses the variables that affect viewing conditions from potentially sensitive areas. Viewer exposure considers the following factors:

- landscape visibility (the ability to see the landscape)
- viewing distance (i.e., the proximity of viewers to the project)
- viewing angle – whether the project would be viewed from above, below or from a level line of sight
- extent of visibility – whether the line of sight is open and panoramic to the project area or restricted by terrain, vegetation and/or structures
- duration of view

Visual Sensitivity is the overall measure of an existing landscape's susceptibility to adverse visual changes. This analysis of visual sensitivity is based on the combined factors of visual quality, viewer types and volumes, and visual exposure to the project. Visual sensitivity is reflected according to high, moderate and low visual sensitivity ranges.

Visually Quality

The visual quality of the project site is representative of the area as the western slope includes a forest hillside that provides distinctive backdrop to the region. The lower portions of the site are indistinctive, as it generally lacks any cohesive vegetation patterns or visual amenities.

Viewer Types and Exposures

Viewer types and exposure conditions for this analysis are focused on roadways in the project vicinity as there are no scenic vistas or designated viewsheds in the project area. Motorists, pedestrians, and bicyclist are the viewer groups identified in the project area and, viewer exposure conditions were determined based on knowledge of the project area and field reconnaissance. Variables considered include the viewing distance, angle of view, the extent to which views are screened or open, and duration of view. Viewing distances are described according to whether the project would be viewed within a foreground (within 0.5 mile or 2,640 feet), middleground (0.5 to 2.0 miles), or background (beyond 2.0 miles) zone. Viewing angle and extent of visibility considers the relative location of the project site to the viewer and whether visibility conditions are open or panoramic, or limited by intervening vegetation, structures or terrain.

Duration of view pertains to the amount of time the project site would typically be seen from a sensitive viewpoint. Specific to this project the duration of view would typically be relatively short as the project would be seen for short or intermittent periods from major travel routes and local roads.

The project site is visible from several public roadways. The project site is briefly visible from SR 17 when traveling southbound, just beyond the Mt. Hermon Road overpass. Due to the topography and the curvature of the highway, the site is more easily visible from a distance (approximately 1,000 feet) rather than from locations physically closer to the site. The project site is nearly invisible when traveling northbound on SR 17 due to the topography of the area and the landscaping in the roadway median. The view from SR 17 of the site is presented in **Figure 4.B-2a**.

The western slope of the project site is visible from the Mt. Hermon Road overpass, but the lower elevation portion of the property, adjacent to La Madrona Drive, is obscured by vegetation between SR 17 and La Madrona Drive. Glimpses through the vegetation of the lower elevations of the project site would be brief and intermittent. The view from Mt. Hermon Road of the site is presented in **Figure 4.B-2b**.

The project site in its entirety is most visible from La Madrona Drive and Silverwood Drive as they form the project boundaries on the east and south sides, respectively. Views of the site from these two local roadways are much longer, as vehicles or pedestrians approaching from all directions have a clear view into the site until beyond the property. Such views include the view from La Madrona Drive south of Silverwood Drive of the site is presented in **Figure 4.B-2c**.

Visual Sensitivity

Visual sensitivity is a composite measurement of the overall susceptibility of an area or viewer group to adverse visual or aesthetic impacts, given the combined factors of landscape visual quality, viewer types, and exposure conditions. **Table 4.B-1** summarizes the visual sensitivity of the major viewer types that would be affected by the project.

**TABLE 4.B-1
SUMMARY OF VISUAL SENSITIVITY FINDINGS
VIEWER TYPES, VISUAL EXPOSURES, AND VISUAL QUALITY**

Viewer Type	Visual Quality	View Exposure	Visual Sensitivity
SR 17	Representative	Foreground Distance Obstructed Views High Number of Viewers Low View Duration	Moderate
Mt. Hermon Road	Representative	Background Distance Obstructed Views High Number of Viewers Low View Duration	Low
La Madrona Drive	Representative	Foreground Distance Unobstructed Views Moderate Number of Viewers High View Duration	High
Silverwood Drive	Representative	Foreground Distance Unobstructed Views Low Number of Viewers High View Duration	High



A - Hwy. 17 southbound



B - Existing view from Mount Hermon overpass



C - Existing view from La Madrona Drive looking northwest

SOURCE: Environmental Vision

Gateway South Retail Stores . 207755
Figure 4.B-2a through 4.B-2c
Views of the Project Site from Public Roadways

Regulatory Framework

This section identifies the policies related to the physical environment and that pertain to the project's potential effects to scenic vistas and resources, and visual quality and character.

State of California

In 1963, the California Legislature established the State's Scenic Highway Program, intended to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. SR 17, which runs in a northeast-southwest direction along the eastern boundary of the project site, is not an officially designated, but eligible, scenic highway (Caltrans, 2009).

The State Scenic Highways program, a provision of the Streets and Highways code, is administered by the California Department of Transportation (Caltrans) and was established to preserve and enhance the natural beauty of California. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. As stated above, SR 17 is eligible for designation as a Caltrans scenic highway, but has not gained official status. As such, the SR 17 scenic corridor (defined as the area of land generally adjacent to and visible from the highway) is subject to protection.

For Caltrans to grant an eligible route official status as a California State Scenic Highway, the local jurisdiction must implement a Corridor Protection Program by either adopting ordinances, zoning and/or planning policies to preserve the scenic quality of the corridor, or documenting that such regulations already exist in various portions of local codes. Policies to prevent visual degradation of these view corridors might include restriction of dense and continuous development, reflective surfaces, ridgeline development, extensive cut and fill grading, disturbed hillsides and landscape, exposed earth, and non-native vegetation (Caltrans, 2009).

Local Plans and Policies

Scotts Valley General Plan

The Scotts Valley Open Space and Conservation Element of the *General Plan* contains goals and policies that regulate visual resources in the proposed project area. The following goals and policies are applicable to the project with respect to visual quality:

- Goal OSG 360* To preserve and protect existing viewsheds and scenic open spaces and corridors.
- Policy OSP 379* Site Planning for development in the City shall protect and enhance the natural environment.
- Policy OSP 385* The city shall protect the visual resources of Scotts Valley by requiring that new development be integrated into the natural setting.

The *General Plan* contains policies to protect natural and scenic resources. As noted above, SR 17 runs along the eastern boundary of the site. La Madrona Drive, which is adjacent to the project site, connects to Mt. Hermon Road just north of the project site. Mt. Hermon Road extends across SR 17 via an overpass and bends around in a southern direction to run parallel to the Highway. The project site is visible from this viewpoint on Mt. Hermon Road (see Figure 4.B-2a). The *General Plan* states that “areas visible along SR 17 and Mt. Hermon Road should all be considered important” because, “while not uniformly attractive at this time, are visually accessible to nearly everyone in the Planning Area and therefore make up much of Scotts Valley’s image” (see Figure 4.B-2a and 2b). Furthermore, SR 17 and Mt. Hermon Road are designated by the City as scenic and worthy of viewshed protection. (Scotts Valley, 1994)

Gateway South Specific Plan

The *Gateway South Specific Plan* contains objectives and policies that regulate visual resources in the proposed project area. The following objectives and policies are applicable to the project with respect to visual quality:

- Objective 3* Preserve and enhance important scenic areas and corridors.
- Policy 3.1* Maintain and enhance the visual quality of roadway corridors that are of scenic value to the community.
- Policy 3.2* Provide “Landmark Architecture” at the entrance to the City. Structures proposed in Planning Area B shall be only considered for approval if they are of exceptional quality and maintain high visual and aesthetic standards. The architectural design of the structures should compliment each other and blend with the surrounding environment. The residential and commercial development should also be complimentary and the project as a whole should maintain a landmark design quality.
- Policy 6.1* New commercial uses shall be located and designed to compliment and strengthen the city’s commercial area.
- Policy 7.1* Parking areas shall be landscaped or otherwise visually screened in a manner which contributes to the overall visual character of the area.
- Objective 8* Develop and maintain a high standard of building and landscape design throughout all development.
- Policy 8.1* Materials, textures, colors and details of all new construction should be an appropriate expression of the development’s design concept and function, and should be compatible with adjacent structures and functions.
- Policy 8.3* Landscaping should be compatible with and compliment site and building design.
- Policy 8.3(a)* Street trees should be provided, which will serve as a unifying element. Street trees will also help to visually define the area.
- Policy 8.5* In order to maintain the highest standard of visual and aesthetic control, all proposals for development in the Specific Plan Area will be processed through

the “Planned Development” regulations contained in the Zoning Ordinance with review and approval by the Planning Commission and the City Council.

Policy 8.6 All commercial developments shall incorporate “public art” as a design feature of the project. Public art may take many forms, but it should be made part of the architectural features and design characteristics of the project.

Design Approval and Zoning

The Scotts Valley Planning Commission is responsible for approval of the project design plans. The Open Space and Conservation Element of the General Plan states that the Planning Commission “shall critically review resource areas on the Viewsheds and Scenic Corridors map in which development is permitted for landscaping, building design and siting to enhance the scenic value of the area.”

The project site is currently zoned and designated Commercial-Service (“C-S”) and Open Space (“O-S”) as per amendments to the city’s *General Plan* in the 1995 Gateway South Specific Plan. Commercial-Service includes retail, service, hotel and motel establishments as allowable uses.

Commercial and Industrial Design Review Guidelines

The Scotts Valley City Council adopted the *Commercial and Industrial Design Review Guidelines* in July 1998. The goal of the design guidelines is to assure that the “scenic forest theme” is implemented whenever possible in nonresidential structures. The guidelines address site planning, unifying elements, building design. They encourage inventive design solutions, but compliance is only required where policies are cited from the Municipal Code or General Plan (Scotts Valley, 1998).

Impacts Analysis

Significance Criteria

Based on Appendix G of the CEQA *Guidelines*, the project would have a significant impact related to aesthetics if it would:

- Have a substantial adverse affect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Definition and Use of Significance Criteria

An adverse visual impact may occur when: (1) an action perceptibly changes the existing distinctive physical features of the landscape that are characteristic of the region or locale; (2) an action introduces new features to the physical landscape that are perceptibly uncharacteristic of the region or locale, or become visually dominant in the viewshed; or (3) an action blocks or totally obscures aesthetic features of the landscape. The degree of visual impact depends on how noticeable the adverse change is. The noticeability of a visual impact is a function of the project features, context, and viewing conditions (angle of view, distance, and primary viewing directions). The key factors in determining the degree of visual change are visual contrast, project dominance, and view blockage.

Visual Contrast

Visual contrast is a measure of the degree of change in line, form, color, and texture that the project will create, when compared to the existing landscape. Visual contrast ranges from none to strong, and is defined as:

- None –The element contrast is not visible or perceived
- Weak –The element contrast can be seen but does not attract attention
- Moderate –The element contrast begins to attract attention and begins to dominate the characteristic landscape
- Strong – The element contrast demands the viewer's attention and cannot be overlooked

Project Dominance

Visual dominance is a measure of a project feature's apparent size relative to other visible landscape features in the viewshed, or seen area. A feature's dominance is affected by its relative location in the viewshed and the distance between the viewer and feature. The level of dominance can range from subordinate to dominant.

View Blockage or Impairment

View blockage or impairment is a measure of the degree to which project features would obstruct or block views to aesthetic features due to the project's position and/or scale. Blockage of aesthetic landscape features or views can cause adverse visual impacts, particularly in instances where scenic or view orientations are important to the use, value or function of the land use.

Overall Adverse Visual Impact

Overall adverse visual impact reflects the composite visual changes to both the directly affected landscape and from sensitive viewing locations. The visual impact levels referenced in this SEIR indicate the relative degree of overall change to the visual environment that the project would create, considering visual sensitivity, visual contrast, view blockage, and project dominance.

In general, the determination of impact significance is based on combined factors of Visual Sensitivity and the Degree of Visual Change that the project would cause. The inter-relationship of these two overall factors in determining whether adverse visual impacts are significant is shown in **Table 4.B-2**.

**TABLE 4.B-2
GUIDELINES FOR DETERMINING ADVERSE VISUAL IMPACT SIGNIFICANCE**

Overall Visual Sensitivity	Overall Visual Change				
	Low	Low to Moderate	Moderate	Moderate to High	High
Low	Not Significant	Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant
Low to Moderate	Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant
Moderate	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant
Moderate to High	Adverse, but Not Significant	Adverse, but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant	Significant
High	Adverse, but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant	Significant	Significant

Not Significant impacts may or may not be perceptible but are considered minor in the context of existing landscape characteristics and view opportunity.

Adverse but Not Significant Impacts are perceived as negative but do not exceed environmental thresholds.

Adverse and Potentially Significant Impacts are perceived as negative and may exceed environmental thresholds depending on project- and site-specific circumstances.

Significant impacts with feasible mitigation may be reduced to less than significant levels or avoided all together. Without mitigation or avoidance measures, significant impacts would exceed environmental thresholds.

Temporary adverse visual impact would be expected during site construction where excavation, grading, and materials and equipment storage occur. However, this would be short-term, lasting only during the construction period. In addition, adverse visual impact would be expected to result from any new lighting fixtures that introduce point sources of light or glare that interfere with nighttime views.

Impacts and Mitigation Measures

Discussion

Comparison of the Proposed Project and the 2005 SEIR

Like the 2005 approved project, the proposed project would entail non-residential development in Planning Area B. The proposed project would construct a 143,000-square foot retail store on the project site. The proposed project would be similar in building floor area to the approved project which included a combined total of 148,000 square feet for an office building and fire station.

Both projects propose to develop the more level area of the parcel, retaining the upper slopes as permanent open space. In addition, both projects propose to develop a similar number of parking spaces, 517 spaces for the retail store in a two level parking deck (57,650 square feet of the parking deck would be covered), and 550 spaces for the office building and fire station. The proposed project would be built on the parcel on the west side of La Madrona Drive, while only the 136,000 square foot office building was proposed for that same parcel and the 12,000 square foot fire station was proposed for the “tear-drop” parcel on the east side of La Madrona Drive.¹ Moreover, the proposed project would develop a retail store, as opposed to the approved office use.

Changes in Circumstances and Information since the 2005 SEIR

As reported in Chapter 1, *Introduction*, of this EIR, the overall circumstances and conditions for the current proposed retail project have not substantially changed from those that existed when the 2005 SEIR was prepared. The area surrounding the project site has not undergone substantial physical changes, (i.e., any substantial new development or changes in infrastructure, circulation, public facilities, or natural resources), since preparation of the 2005 SEIR.

Summary of 2005 SEIR Impacts

The 2005 SEIR concluded that development of the office building could potentially create light and glare spill onto adjacent properties and affect motorists on SR 17. No other significant effects related to aesthetics were identified. The 2005 SEIR identified Mitigation Measure VIS-5.1 to mitigate the significant impact resulting from proposed development to less than significant:

2005 SEIR Mitigation Measure VIS-5.1: Prepare and Implement Light Plans

Significance after Implementation of 2005 SEIR Mitigation: Less than Significant

Construction Impact

Impact AES-1: Construction of the project would create temporary aesthetic nuisances associated with project construction and grading activities. (Significant)

Project construction activities would result in temporary exposure of graded surfaces, construction debris and the presence of construction equipment and truck traffic. Construction equipment for grading activities would be stored at various locations throughout the project site. In addition, the identification and maintenance of staging areas away from heavily traveled roadways and sidewalks would reduce potentially significant, short-term impacts. Implementation of the following mitigation measures would reduce these short-term aesthetic impacts to less-than-significant levels:

¹ The fire station remains an approved use.

Mitigation Measure AES-1: The project shall incorporate into all construction contracts and ensure implementation of the following measures:

- To the extent feasible, during all site preparation and exterior construction activities, the project sponsor shall place and maintain a screened security fence around the perimeter of the project site and removed upon completion of construction activities. The City shall determine the height, material and placement of such fencing, as appropriate and effective given the relative change in elevation and viewpoints to the site.
- To the extent feasible, construction staging areas shall be located in the interior of the project site, away from the property boundary and remain clear of all trash, weeds and debris etc. Construction staging areas may include other areas of the project site when necessary, but shall be located away from adjacent properties, La Madrona Drive and Silverwood Drive to minimize visibility from public view to the extent feasible.
- Construction activity shall be allowed in conformance with the noise ordinance which states that construction activity shall be limited to the hours between 8:00 a.m. and 6:00 p.m., Monday through Friday and 9:00 a.m. through 5:00 p.m. on Saturday. No construction activity is allowed on Sunday.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: No New Impact, but New or Updated Mitigation Measure Identified

Operation Impacts

Impact AES-2: The proposed project would alter views of and across the project site, but would not have a substantial adverse effect on a scenic vista or substantially damage scenic resources. (Less than Significant)

As discussed in the Setting section above, the project site is located on the edge of the urban environment in the City of Scotts Valley, on a parcel that gradually slopes upward to a steep hillside to the west. The project site is bounded by residential and open space to the west, a Hilton Hotel to the north, a retail center known as Scotts Valley Corners and SR 17 to the east, and undeveloped land to the south. Scenic resources in the project site vicinity include long-range views of the forested Santa Cruz Mountains. Views to the north and east comprise adjacent development, with buildings and highway infrastructure interrupting the views.

As already noted, SR 17, which runs in a northeast-southwest direction along the eastern boundary of the project site, is not an officially designated California Scenic Highway segment, though it is considered eligible for designation (Caltrans, 2008). The Scott's Valley *General Plan* states:

“...the areas visible from SR 17, Scotts Valley Drive, and Mt. Hermon Road should all be considered important. These latter areas, while not uniformly attractive at this time, are visually accessible to nearly everyone in the Planning Area and therefore make up much of Scotts Valley’s visual image. In the unincorporated areas, SR 17, Graham Hill Road and Mt. Hermon Road are designated by the County as scenic and worthy of viewshed protection. Vistas are the major places where stationary or momentary views are available because of topography and existence of public spaces such as roads.”

The proposed project would be momentarily visible from SR 17 in the southbound direction as vehicles pass under the Mt. Hermon Road interchange, due to the topography and the curvature of the highway. The project site is nearly invisible when traveling northbound on SR 17 due to the topography of the area and the landscaping in the roadway median. However, the massing and color of the building would increase the visibility to both northbound and southbound vehicles, as it would contrast with the lower reaches of the wooded hillside.

While the project would block views of the lower portions of the hillside from SR 17, this change would not be considered a substantial adverse visual impact as the project would be adjacent to other urban development (i.e., the Hilton Hotel and Scotts Valley Corners) and the proposed project would be required to include landscaping along the project frontage to soften the building views from SR 17, more specially southbound SR 17 where the project is visible for a few seconds as vehicles pass under the Mt. Hermon Road overpass. The proposed project would use terraced landscaping, warm earth tones and textures, and architectural features to form breaks in the building mass. In addition, trees would be planted in the terraced landscaping along the project frontage to further break-up the visual massing of the proposed building. More importantly, in most views, the proposed project would not interrupt the upper portion of the forested hillside, which forms the most important and visually distinctive element of the project site.

Development of the proposed project would result in a change to existing views of the site from public view points in the project vicinity. The project site is currently undeveloped and does not provide any view corridors that direct one’s line of sight toward scenic resources.² The proposed project would be developed on the portion of the site that fronts La Madrona Drive, leaving the upper-slopes of the site as open space. The project would include street frontage landscaping, including street trees and terraced plantings, which would be planted to soften the views of the building from public view points along public roadways. Because the project would not obstruct any significant view corridors, leaving the upper-slopes of the project site untouched and visible above the roofline, the project effects on views would be less than significant. Therefore, the project would not adversely affect scenic vistas or substantially damage any scenic resources.

Mitigation: None required

² View corridors are formed by buildings or other physical elements that guide lines of sight and control view directions available to pedestrians and motorists. View corridors include the total field of vision from a specific viewpoint.

Comparison to 2005 SEIR Findings: No New Impact or Changes

Impact AES-3: Implementation of the proposed project would alter, but would not substantially degrade the existing visual character or quality of the site and its surroundings. (Less than Significant)

The project would alter the visual character of the site. The project would include the development of a single story, 143,000 square foot retail store on the southern portion of the project site at the corner of La Madrona Drive and Silverwood Drive. In addition, the project would construct a two-story parking deck to accommodate 517 parking spaces on the northern portion of the project site.

The project's architectural style represents a contemporary aesthetic, with references to traditional building designs indicative of the Arts and Crafts Movement. The building design includes the use of wood eave brackets and wood frame trellises, a building base and columns clad in horizontally arranged fieldstones, and an entry sequence punctuated by a deeply projecting roofed entrance. These criteria generally follow the design standards used by the Target Corporation for their retail establishments, which also include a simplified, linear and box-shaped building form. However, the project does attempt to integrate exterior aesthetic features, such as natural stone masonry work along La Madrona Drive, that are similar to that of buildings in the project vicinity, such as the Hilton Hotel, adjacent to and north of the project site (see Figure 4.B-1).

Although the building would be a single story structure, the project's grading plan proposes to alter the existing topography to accommodate the building layout and adjacent parking deck.

The proposed building design would be required to adhere to *Policy 3.2* of the Gateway South Specific Plan that requires developments to provide "Landmark Architecture" at the entrance to the City. Projects are only considered for approval if they are of exceptional quality and maintain high visual and aesthetic standards, including complementing each other and the environment as a whole. The built environment adjacent to the proposed project includes the Hilton Hotel to the north and Scotts Valley Corner across La Madrona Drive to the northeast. The architectural design of the existing commercial development adheres to the "Landmark Architecture" test, as the buildings were approved under Policy 3.2. As the proposed project would complement these existing buildings and would adhere to design policies outlined in the Gateway South Specific Plan, it would not substantially degrade the visual character or quality of the site. In addition, the project design would be subject to final approval by the Scotts Valley Planning Commission.

Impacts on Specific Vantage Points

To evaluate the change in views from public vantage points at the project build-out, computer-generated visual simulations illustrating "before" and "after" visual conditions from five representative public vantage points near the project site are included as part of this analysis.

The locations of the visual simulation vantage points were selected in consultation with visual resources professionals and City staff, and were chosen to represent viewpoints that are both

highly accessible to the public and that provide the most direct views of potential site changes. These viewpoints are illustrated in **Figure 4.B-3**. The renderings of the proposed project are intended to provide representation of the proposed building height, bulk, and architectural style, although the project would be required to undergo review by the City Planning Commission to comply with the conditions of the design review.

Figure 4.B-4a depicts an existing view of the project site from the Mt. Hermon Road overpass looking south toward the site. As illustrated in the photo, the project site is currently undeveloped, including low-lying shrubs and grasses on the eastern flat part of the site, moving west to a wooded hillside. This view includes a portion of the existing Hilton Hotel and southbound traffic on SR 17. The existing trees along the embankment of SR 17 block direct views into the site.

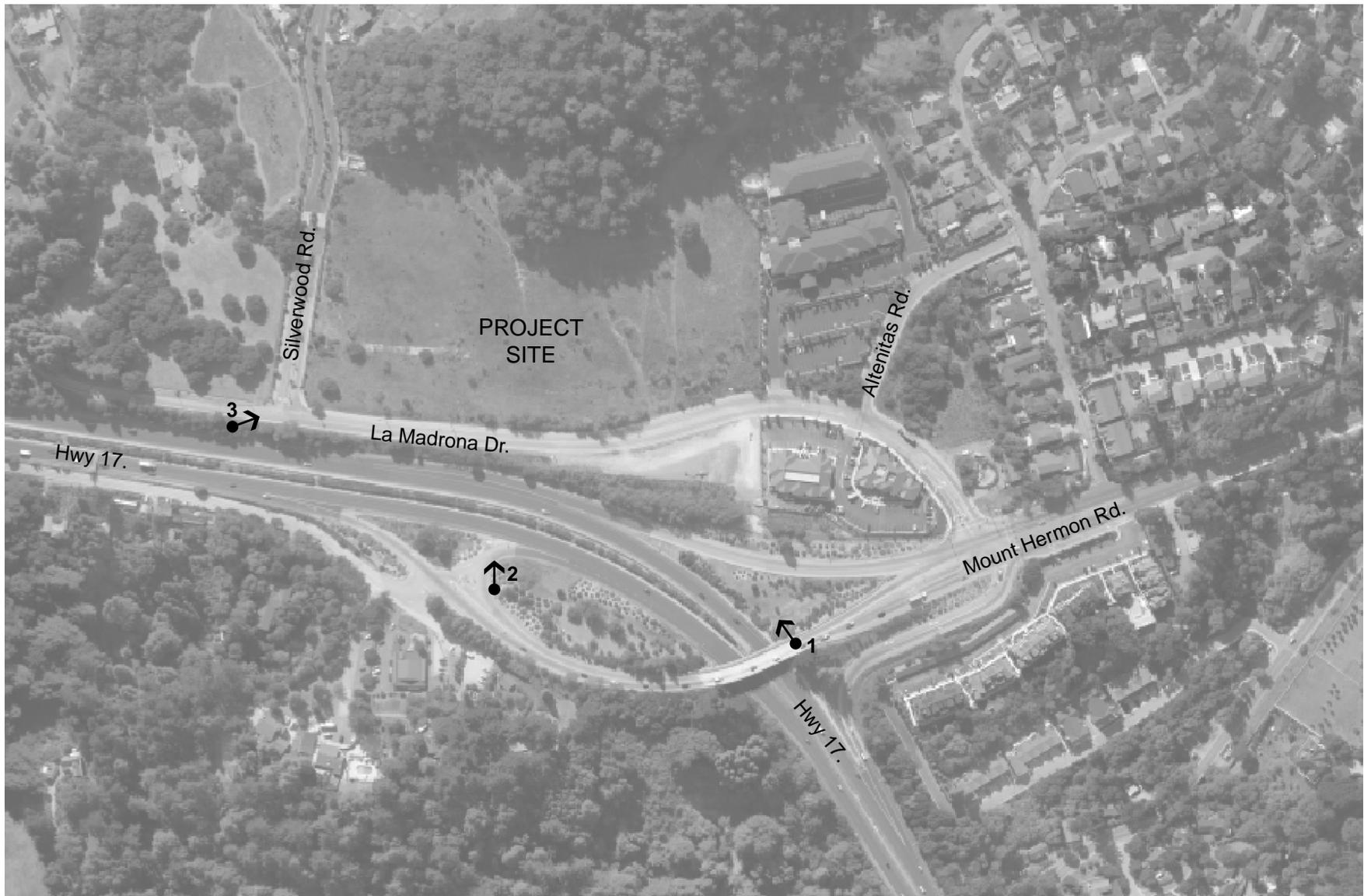
Under project conditions, views from this vantage point would change as depicted in **Figure 4.B-4b**. The most prominent change from this perspective, in the background view, is the addition of the store itself, and less so the parking deck. The store is visible, but somewhat obscured, over the existing trees that line the embankment of SR 17. The rectangular mass and light tones of the building is juxtaposed to the irregular texture and color of the vegetation.

However, the proposed project does not break-up the form of the background environment anymore so than the existing buildings (i.e., the Hilton Hotel and Scotts Valley Corners). Furthermore, the middle- and foreground from this viewpoint is dominated by SR 17 which is more of a visual focal point from this viewpoint.

Since the proposed building would be similar to that already existing in the background view above SR 17 (i.e., the Hilton Hotel), the visual contrast would be low to moderate, and, would not cause a substantial visual contrast to existing views, and would not dominate nor obstruct the view. Therefore, the relative change in the views from Mt. Hermon Road would be low.

Figure 4.B-5a depicts an existing view of the project site from the northbound SR 17 off-ramp looking west toward the site. As illustrated in the photo, the project site is currently undeveloped, including low-lying shrubs and grasses on the eastern flat part of the site, moving west to a wooded hillside. The foreground view includes the Mt. Hermon Road northbound off-ramp and northbound traffic on SR 17. The middle-ground includes the landscaped median, the intermittent views of southbound traffic on SR 17. The background view includes the including the low-lying shrubs and grasses on the eastern flat part of the site, moving west to a wooded hillside, and the utility poles and lines along La Madrona Drive.

Under project conditions, views from this vantage point would change as depicted in **Figure 4.B-5b**. The most prominent change from this perspective is the addition of the proposed project that interrupts the background view of the wooded-hillside. The proposed project's landscaped terraces and architectural details are fully visible. With undergrounding that would occur as part of the project, the utility poles and lines are notably missing. The trees on the upper slopes of the project site are visible over the top of the proposed building; however, the low-lying trees are obscured. The fore- and middle-ground views would be unchanged.



0 150 300
Scale in Feet

1 ● → Photo Viewpoint



Existing view from Mount Hermon overpass



Visual simulation of proposed project

SOURCE: Environmental Vision

Gateway South Retail Stores . 207755

Figure 4.B-4a and 4.B-4b
Site Photo and Visual Simulation from Viewpoint 1



Existing view from Hwy. 17 northbound on ramp looking west



Visual simulation of proposed project

SOURCE: Environmental Vision

Gateway South Retail Stores . 207755
Figure 4.B-5a and 4.B-5b
Site Photo and Visual Simulation from Viewpoint 2

Once the landscaped terraces are mature the visual contrast between the proposed building and the wooded hillside would not be as conspicuous. And although, the low-lying trees are blocked, the presence of the wooded hillside is still evident. As the proposed project includes a landscaping plan that would eventually reduce the visual predominance of the proposed building, and although the visual change from this viewpoint would be moderate to high, it would not cause a substantial visual contrast to an overall visually sensitive area. Therefore, the relative change in the views from northbound SR 17 off-ramp would be moderate, but not significant.

Figure 4.B-6a depicts an existing view of the project site from La Madrona Drive looking north toward the site. As illustrated in the photo, currently undeveloped, including low-lying shrubs and grasses on the eastern flat part of the site, moving west to a wooded-hillside. This view includes Silverwood Drive and utility poles on the west side of La Madrona Drive.

Under project conditions, views from this vantage point could change as depicted in **Figure 4.B-6b**. The most prominent change from this perspective is the addition of the proposed project that interrupts the background view of the horizon over the existing low-lying vegetation. The proposed project's landscaped terraces and architectural details are fully visible in the middle-ground view. The utility poles and lines are undergrounded as part of the project and are notably missing. The trees on the upper-slopes of the project site are fully visible over the top of the proposed building; however, the low-lying trees are removed as part of the project. The foreground view would be unchanged.

Once the landscaped terraces are mature the visual contrast between the proposed building and the wooded-hillside would not be as conspicuous. And although the low-lying trees and background horizon are changed, the presence of the wooded hillside -the most important visual feature of the site- is unchanged. As the proposed project includes a landscaping plan that would eventually reduce the visual predominance of the proposed building, and although the visual change from this viewpoint would be high, it would not cause a substantial visual contrast to an overall visually sensitive area as it is similar in nature to the built environment in the vicinity. Therefore, the relative change in the views from La Madrona Drive would be high, but as the overall visual sensitivity is low, it would be a significant-less-than impact.

Conclusions

Although visual quality is subjective it can reasonably be concluded that the proposed project would not result in a substantial, demonstrable negative aesthetic effect. The project would result in substantial changes in visual character due to the construction of the proposed project building and associated parking deck. The project would, however, maintain the most prominent visual feature of the site by preserving the wooded-hillside as permanent open space.

In conclusion, while the proposed project would result in aesthetic changes on the site, and some of the changes could be consider adverse, the project would not fundamentally alter views of the upper portion of the forested hillside at the west of the project site. Because this wooded hillside is the most distinctive visual feature of the site, the impact would be considered less-than-significant.



Existing view from La Madrona Drive looking northwest



Visual simulation of proposed project

SOURCE: Environmental Vision

Gateway South Retail Stores . 207755
Figure 4.B-6a and 4.B-6b
Site Photo and Visual Simulation from Viewpoint 3

Furthermore, the project would be subject to the City's design review process to assure project consistency with existing development and *Gateway South Specific Plan* policies related to visual quality. Based on the above evaluation of the project's physical character, massing, and height relationships to other surrounding buildings, the project would not substantially degrade the existing visual character of quality of its site or its surroundings.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Impact AES-4: Implementation of the proposed project would result in an increase in light and glare at the project site. (Significant)

The project site is located on the edge of a developed urban environment with roads and land uses including residential and some retail/commercial areas. On the project site, existing light levels are low given the undeveloped nature of the site itself and the minimal illumination from adjacent neighborhood street lighting and nearby land uses.

The project would develop a currently undeveloped site and the amount of light and glare produced on-site would increase and be visible from on- and off-site vantage points. Additional light and glare could contrast with the surrounding land uses, particularly with respect to views from SR 17, and would change nighttime views from some neighboring residential uses. "Spill light" (light that falls on offsite receptors, causing additional unwanted illumination) could be produced from interior and exterior lighting, streets lights and headlights of vehicles traveling to and from the site.

The project would incrementally increase the amount of light generated on the site and in the vicinity. The project sponsor would be required to prepare and submit to the City an onsite lighting master plan for review and approval by the City.

The project would generate an increase in light generated on the site compared to existing conditions; however with the implementation of Mitigation Measures AES-4a through AES-4c, the project would not create a substantial new source of light and glare that would adversely affect day or nighttime views in the area.

Mitigation Measure AES-4a: The project sponsor shall install cut-off fixtures on all night lighting at the time the lighting is installed on the site, to substantially reduce light and glare.

Mitigation Measure AES-4b: The project sponsor shall design and install onsite lighting to minimize spill light at off-site locations and prevent over-illumination of the site. The proposed lighting shall be designed to shield the lighting with reflectors that aim the light downward to illuminate the area around the fixture.

Mitigation Measure AES-4c: The project sponsor shall require that all exterior light (including all exterior building signage), with the exclusion of required security lighting, be turned off one-half hour after the store's closing at 10:00 p.m.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: No New Impact, but New or Updated Mitigation Measure Identified

Cumulative Impacts

Impact AES-5: Development proposed as part of the project, when combined with past, present and other foreseeable development in the vicinity, would not result in cumulative impacts to visual resources. (Less than Significant)

The land use associated with the proposed project would be consistent with the planned cumulative density and visual character created by past, present, and reasonably foreseeable future projects in the project vicinity, but at a greater density than permitted under the existing Gateway South Specific Plan. As further discussed in Chapter 6, *Other Statutory Sections*, the cumulative baseline would include the buildout of the adjacent parcel to the south, the fire station across La Madrona Drive, and other parcels in the project site vicinity farther afield.³

Development of the project in combination with past and potential future projects on the adjoining properties, including the proposed fire station on the triangular parcel between La Madrona Drive and SR 17, could contribute to cumulative visual impacts from SR 17, La Madrona Drive, Mt. Hermon Road, and Silverwood Drive resulting from the gradual change in the perception of the Gateway South Area property over time. From public vantage points near the project site, such as the SR 17 and La Madrona Drive, the development of the parcel to the south across Silverwood Drive in combination with the proposed project would change the visual views in the project area most substantially. The development of the adjacent site would likely include a residential structure which could be seen from these public vantage points. However, the County would require the development of the parcel to adhere to planning and construction protocols which would regulate what could be built on the site.

The future development of the area is projected to occur in accordance with *Gateway South Specific Plan*, which anticipates and encourages a variety of non-residential uses and the creation of a built "gateway" to the City's southern entrance. With continued implementation of the design review process, the project when considered together with past, present and reasonably future development in the vicinity, would therefore not result in cumulative impacts on the visual resources of the surrounding area and the impact on visual resources would be less than significant.

³ It should be noted that the parcel to the south of the project site is not included in the Gateway South Specific Plan.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

References – Aesthetics

California Department of Transportation (Caltrans), Eligible and Officially Designated Routes, <http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm>, Accessed July 30, 2009.

Santa Cruz County, 1994. *Santa Cruz County General Plan (1994)*.

Scotts Valley, 1994. *Scotts Valley General Plan (1994)*.

Scotts Valley, 1998. *Commercial and Industrial Design Review Guidelines*. July 1998.

C. Land Use and Planning

This section describes the existing land uses, adopted General Plan and Specific Plan land use classifications, and zoning classifications related to the proposed project. This section also describes the applicable plans and policies that guide development in the project area and evaluates the project's consistency with these plans and policies and other existing land use regulations. Potentially significant land use impacts are identified and, if necessary, appropriate mitigation measures are determined. Primary sources for this section include the *City of Scotts Valley General Plan*, the *Gateway South Specific Plan*, and the *City of Scotts Valley Municipal Code*. Site visits were conducted to confirm existing land use information.

Setting

Land Uses in the Project Site Vicinity

As introduced in Chapter 3, Project Description, the project site is located within the southern portion of the City of Scotts Valley (see Figure 3-1 in Project Description). The proposed project site is located on undeveloped land bound by commercial land uses to the north along Alatenitas Road (i.e., the Hilton Hotel), vacant land to the south, La Madrona Drive to the east which serves as frontage road along State Route (SR) 17, and residential land uses to the west (i.e., Monte Fiore subdivision). The southbound on-ramp to SR 17 is located farther to the east.

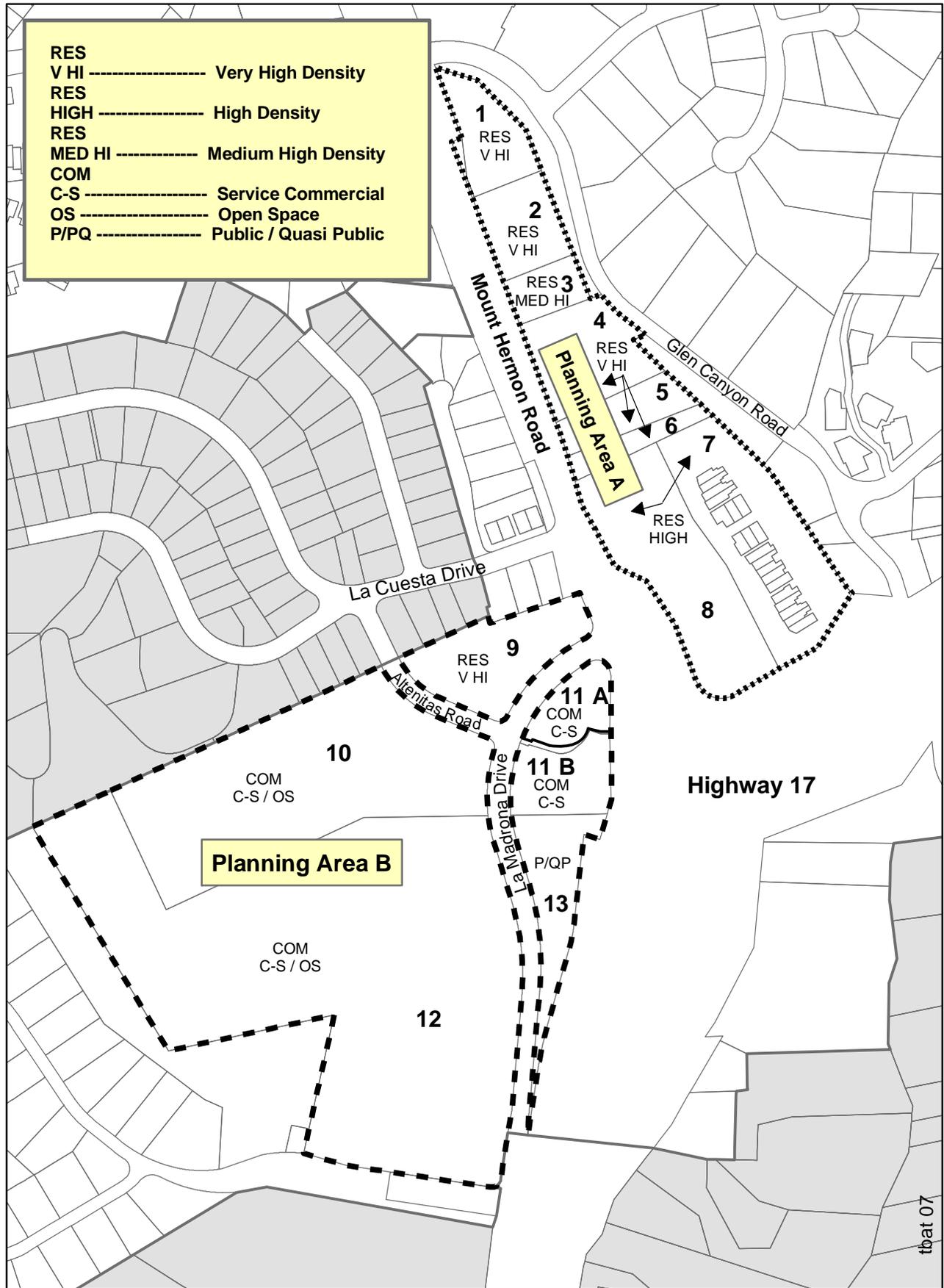
Land uses in the project site vicinity are mixed and include retail and commercial uses, visitor-serving uses, and residential. Northeast of the site, across La Madrona Drive, there is a retail center known as Scotts Valley Corner, with a number of businesses including office, retail, personal service, and restaurant uses. Residential land uses in the project vicinity include the Monte Fiore subdivision to the west, the Manana Wood subdivision to the northwest. The parcels to the south of the project site, beyond Silverwood Drive, are in the County of Santa Cruz. According to the County's General Plan (1994), the parcels, although vacant, are designated for rural residential land uses.

The Specific Plan map illustrates land uses in the project vicinity (see **Figure 4.C-1**). The project site is located in Planning Area B of the *Gateway South Specific Plan*. Planning Area B consists of six parcels along La Madrona Drive, south of Mt. Hermon Road and west of SR 17. The project site is Parcel 12 in Figure 4.C-1.

Regulatory Framework

City of Scotts Valley General Plan

The City of Scotts Valley General Plan was adopted by the City on April 20, 1994. Citizens and decision makers use the *General Plan* to guide the city's long range development of land and conservation of resources.



Gateway South Retail Stores . 207755

Figure 4.C-1
Project Site Specific Plan Land Use

Gateway South Specific Plan

The *Gateway South Specific Plan* was adopted in 1995 and last amended in 2007. The City determined the need for a Specific Plan for the area during the preparation of the 1994 revision of the General Plan. The Specific Plan was created to emphasize the need for commercial and office development, housing opportunities, and the preservation of the hillside, while minimizing access points on Mt. Hermon Road on the undeveloped land.

The Specific Plan translates the broad community policies, goals, and objectives as set forth in the General Plan into specific regulations, programs and legislation for guiding actual development. The Specific Plan states that the maximum total building coverage shall be 151,000 square feet (sq.ft.) in Planning Area B, which includes the project site, and that any proposal to exceed this limitation shall require a Specific Plan amendment. Buildings existing in Planning Area B, including the Hilton Hotel and the Scotts Valley Corners retail center, which total approximately 40,000 sq.ft of building coverage. Update to putting existing and approved.

Project Site Zoning

As illustrated in **Figure 4.C-2**, the project site is zoned C-S (Service Commercial) and OS (Open Space). The more gently sloping portion of the site adjacent to La Madrona Drive is zoned CS, while the forested hillside on the upper elevation of the site is zoned OS. The proposed project would be developed within the portion of the parcel zoned C-S. Allowable uses in the C-S zoning district include retail establishments, banks, business, and personal service establishments, medical, professional, and general business office. Public utilities and service uses are a conditionally permitted use in the C-S zone. The proposed project is a permitted use in the C-S zoning district.

The OS zoning permits fish and wildlife management activities or facilities, flood control channels and drainage facilities, public and private recreation areas, parks, playgrounds, wildlife and timber preserves, and watershed management activities or facilities. Accessory uses and structures are permitted as incidental to the permitted use, and include storage facilities and signs.

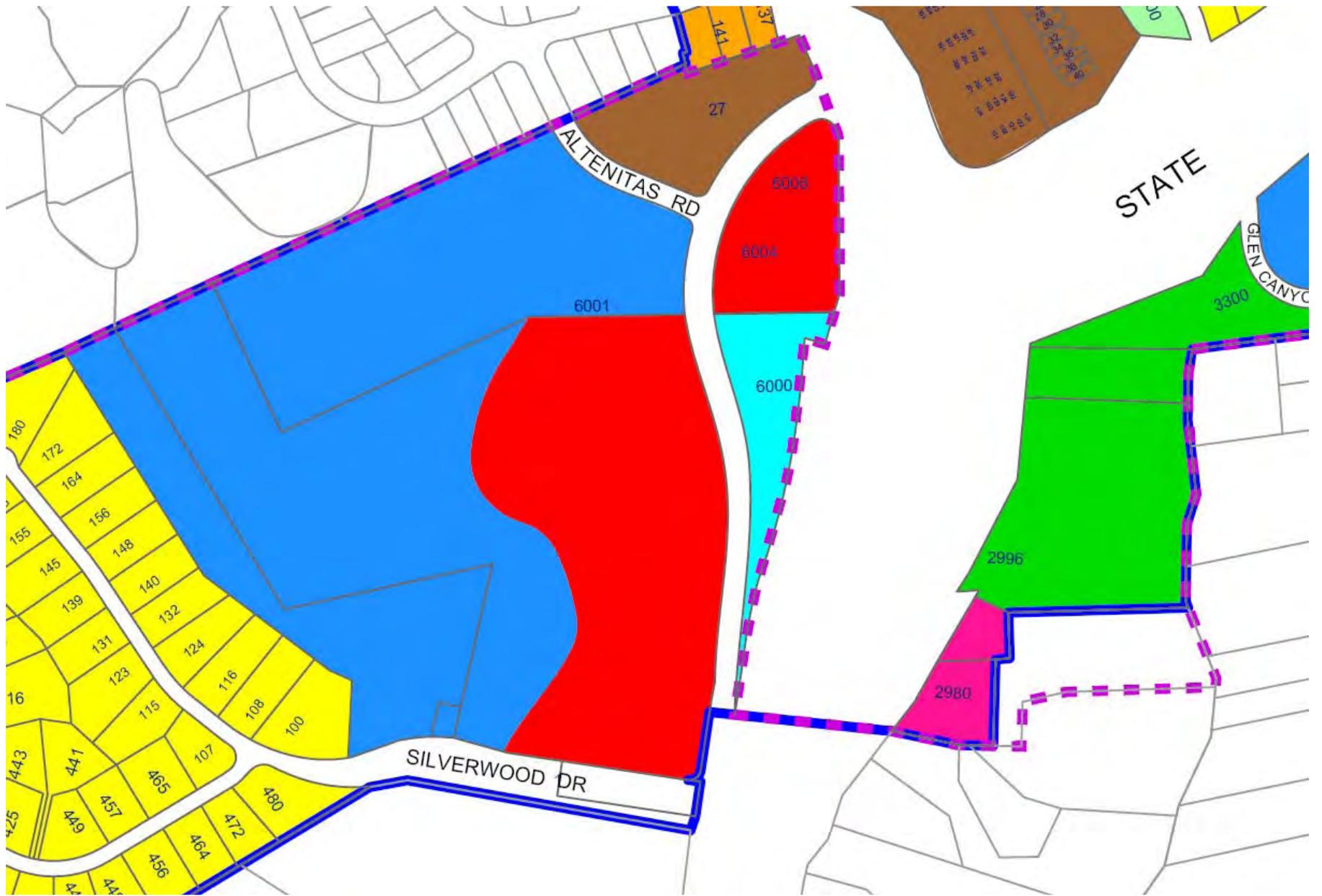
Parcels neighboring to the project site are zoned C-S to the northeast, OS to the east, High Density Residential (R-H) to the north, Low Density Residential (R-1-20) to the west. Zoning on neighboring parcels is illustrated in **Figure 4.C-2**.

Impacts Analysis

Significance Criteria

Based on the Appendix G of the CEQA *Guidelines*, the project would have a significant impact if it would:

- Physically divide an established community;



- Fundamentally conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect and result in a physical change in the environment; or
- Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.

Approach to Analysis

The project was evaluated for its compatibility with the applicable plans and policies in order to determine the potential for significant environmental impacts. The project site and its proposed uses were evaluated in terms of their compatibility with existing land uses surrounding and in close proximity to the project site. The potential change that the project would cause is measured against existing baseline conditions.

Impacts and Mitigation Measures

Comparison of the Proposed Project and the 2005 SEIR

Like the 2005 approved project, the proposed project would entail non-residential development in Planning Area B. The proposed project would construct a 143,000-square foot retail store on the project site. The proposed project would be similar in building floor area to the approved office project which included a combined total of 148,000 square feet for an office building and fire station. Both projects propose to develop the more level parcel of the area, retaining the upper slopes of the parcel as permanent open space. In addition, both projects propose to develop a similar number of parking spaces, 517 spaces for the retail store in a two level parking deck, and 550 spaces for the office building and fire station. The proposed project would be built on the parcel on the west side of La Madrona Drive, while only the 136,000 square foot office building was proposed for that same parcel in 2005 and the 12,000 square foot fire station was proposed for the “tear-drop” parcel on the east side of La Madrona Drive.¹ Moreover, the proposed project would develop a retail store, as opposed to the approved office use.

Changes in Circumstances and Information since the 2005 SEIR

As reported in Chapter 1, *Introduction*, of this EIR, the overall circumstances and conditions for the current proposed retail project have not substantially changed from those that existed when the 2005 SEIR was prepared. The area surrounding the project site has not undergone substantial physical changes, (i.e., any substantial new development or changes in infrastructure, circulation, public facilities, or natural resources), since preparation of the 2005 SEIR. However, there have been several amendments to the *General Plan*, as well as an amendment to the *Gateway South Specific Plan* in 2007.

¹ The fire station remains an approved use.

The majority of the General and Specific Plan amendments are related to increasing the density of future residential projects in the specific plan area and specifying the use of certain parcels. Prior to the 1995 *Gateway South Specific Plan*, the area was zoned only for low density, single family residential (R-1-20) and service commercial (C-S). Since then, the Specific Plan has changed the residential zoning to reflect higher residential densities, including Residential-Very High Density (RM-VHD, 15.5 to 20 units/acre), Residential-High (RM-HD, 9 to 15 units/acre), and Residential Medium (R-M-8, 5 to 9 units/acre), and specified that some of the service commercial parcels be changed to Open-Space (OS) and Public/Quasi Public (P/PQ) zoning. The 2006 Specific Plan amendment clarified the language of Policy 6.3 to allow 151,000 square feet of building coverage.

Impact LU-1: The proposed project would not physically divide an established community. (Less than Significant)

As described in the Setting section, the project area consists mainly of commercial, public, open space, and residential uses. The proposed project would construct a retail store on the site near SR 17, a major state route, near a full-access interchange with Mt. Hermon Road.

A Hilton Hotel is adjacent to the project site and a retail center known as Scotts Valley Corners with a number of businesses including office, retail, personal service, and restaurant uses are located directly across La Madrona Drive from the Hilton Hotel. The proposed project would be compatible with the adjacent commercial uses and the approved fire station in that it would develop a retail use that is allowed under both the Specific Plan and Zoning designations. While the project would result in a noticeable change from the existing pattern of visitor-serving commercial, the retail land use would not physically divide the established community.

Monte Fiore subdivision, the adjacent residential community, would be separated from the proposed retail project by the preserved forested hillside on the western side of the project site. The Manana Woods subdivision to the north-west would also be buffered from the commercial land use by the preserved forested hillside. The residential land uses in the project site vicinity would not be physically divided by the proposed project as they form a continuous semi-circle around the project site that is buffered by the forested hillside.

The proposed project would introduce a land use consistent with the *Gateway South Specific Plan*, and would enhance the existing commercial area. The upper hillside slopes of the project site would be designated as permanent open space, consistent with the OS zoning on the site. Based on the above, the project would not physically divide adjacent neighborhoods or communities.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Impact LU-2: The proposed project would be consistent with applicable land use policies and zoning regulations for the City of Scotts Valley. (Less than Significant)

Similar to the office building that was proposed for the site, the proposed retail development would be consistent with the C-S zoning of the parcel which permits retail stores and shops, food and hotel establishments, and service related businesses. The addition of more retail space to the area is consistent with the City's goal to provide commercial opportunities that would enhance the City's tax base and provide employment opportunities.

The preservation of the upper slopes as open space is consistent with the OS zoning for this area and is consistent with the goal of preserving and protecting the city's natural resources through the limitation of development on steeply sloped lands. The proposed project would construct a retaining wall below the 40 percent slope line just to the west of the development to protect the remaining open space. Open space would constitute approximately 40 percent of the project site. On the west side of the open space, the proposed project would restore native vegetation and plant a new redwood grove. The restoration of native vegetation and protection of the steeply sloped areas is consistent with the City's policy to conserve the area's native vegetation and plant communities for their aesthetic and habitat value. In addition, there would be landscaping along the entire project frontage, on the upper level of the parking deck, and along the project boundary with the Hilton Hotel to the north. The landscaping plans would be consistent with Specific Plan Policy 7.1 that specifies that parking areas should be landscaped or otherwise visually screened.

Finally, the proposed development would also provide 517 off-street parking spaces and accommodate bicycles and pedestrians. In summary, the proposed project would be consistent with the land use and zoning for the site.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Impact LU-3: The proposed project would conflict with the applicable land use policy contained in the Gateway South Specific Plan; however, the proposed project includes a Specific Plan Amendment that, if approved, would eliminate the inconsistency. (Less than Significant)

The proposed project would conflict with the applicable land use policy contained in the Gateway South Specific Plan. Specific Plan Policy 6.3 states that development in Planning Area B shall not exceed 151,000 square feet of building coverage without an amendment of the plan. The Hilton Hotel, the retail development east of the Hilton, and the approved fire station account for 62,000 square feet of the development coverage in Planning Area B.

The proposed project would have a 200,650 square feet coverage including 143,000 square feet of retail space and 57,650 of parking deck, which would be approximately 111,650 square feet over allowable limits.

As part of the proposed project the City of Scotts Valley would amend the Specific Plan to allow approximately 132,000 square feet of additional building coverage in Planning Area B to accommodate the proposed project.² The approval and adoption of a Specific Plan Amendment would eliminate the land use inconsistency. Amending the Gateway South Specific Plan is not a significant impact.

Further, the proposed project would be higher than that allowed under the C-S zoning district (35 feet in height measured from the natural grade), however, the proposed project would be developed under a Planned Development (Section 17.38.020 Municipal Code) which allows for height exceptions to individually meet the needs of the property so zoned. The proposed site would be consistent with the base district zoning of C-S.

Conflicts with a General Plan or other relevant plans (i.e., the *Gateway Specific Plan*), do not inherently result in a significant effect on the environment within the context of CEQA. Section 15358(b) of the CEQA Guidelines states that “effects analyzed under CEQA must be related to a physical change.” Appendix G of the CEQA Guidelines makes explicit the focus on physical environmental policies and plans, asking if that the project would “conflict with any applicable land use plan, policy, or regulation...*adopted for the purpose of avoiding or mitigating an environmental effect*” (emphasis added). As such, the project’s conflict or inconsistency with the policy could indicate that an environmental threshold has been exceeded. To the extent that the project exceeds an environmental threshold and physically impacts may result from a policy conflict or inconsistency, such physical impacts have been identified and fully analyzed in the relevant topical sections of this SEIR.

Physical environmental effects of this amendment and associated increases in development, such as increased traffic, noise, air emissions, habitat degradation, visual resources effects and hydrologic impacts are discussed in their respective sections in this SEIR. Assuming approval and adoption of the Specific Plan Amendment outlined above, the project would be consistent with the applicable land use plans and policies and therefore there would not be a significant land use impact.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

² As plans for the proposed project are not final and engineering calculations have not been completed, an additional 20,000 square feet would be added onto the proposed square footage to eliminate possible additional amendment requests.

Impact LU-4: The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. (No Impact)

The project site is located in an area that is not governed by any Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, the proposed project would not conflict with any such plan affecting the area.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Cumulative Impacts

Impact LU-5: The proposed project, together with other developments in the immediate vicinity, would not contribute to potential cumulative land use impacts. (Less than Significant)

The cumulative physical impacts associated with these particular impact categories are addressed in the corresponding sections of this SEIR (Sections 4-A, *Transportation* through 4-J, *Other Topics Previously Addressed in the Initial Study*). The development of the project site was considered in the Gateway South Specific Plan. Because the City has adopted and routinely implements land use and development review policies and requirements in consideration of their impacts for the entire community, the cumulative land use impacts of the proposed project together with other existing and reasonably foreseeable development related to the City's land use policies are considered less than significant.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

References – Land Use and Planning

City of Scotts Valley. 1994. *City of Scotts Valley General Plan*, as amended 2002-2005

City of Scotts Valley, 1995. *Gateway South Specific Plan Final EIR*, as amended May 2007.

City of Scotts Valley. *Municipal Code*.

City of Scotts Valley. 2005. *Supplemental EIR Gateway South Office Building and Fire Station*, January 2004.

City of Scotts Valley. *City of Scotts Valley Zoning Map*. Prepared by TriAxial Data Systems. March 2007.

County of Santa Cruz, *1994 General Plan and Local Coastal Program for the County of Santa Cruz, California*. Adopted May 1994, (Figure 2-7, Page 2-58)

ESA, Field Reconnaissance Surveys, March 19 and May 8, 2008.

D. Biological Resources

This section describes biological resources in the Gateway South project area and project-related impacts on those resources. The analysis includes potential project-related impacts to special-status plant and wildlife species and their habitats, trees, and wetlands.

Impacts evaluated in this section include:

- the potential for impacts to jurisdictional wetlands and waters of the U.S.;
- loss of individuals of, or habitat for, rare or special-status plant or wildlife species;
- disturbance to nesting raptors or migratory birds;
- loss of sensitive native plant communities;
- blockage or disruption of major wildlife migratory corridors; and
- significant impacts to or loss of trees protected by the City of Scotts Valley tree ordinance.

Prior CEQA Review

Two documents have previously addressed biological resources at the current project site: they are the *Gateway South Specific Plan Final EIR* (1995) and the *Gateway South Office Building and Fire Station Supplemental EIR* (2005).

Gateway South Specific Plan Final EIR

The biological resources section of the Specific Plan FEIR describes the existing resources on several properties to the west of State Route (SR) 17, and south of Carbonera Creek in Scotts Valley, including the proposed project site. Zander Associates used reconnaissance site visits in March and April, 1995, and a previous biological study written by Harvey and Stanley Associates Inc. (June 20, 1988), to assess the biological resources of the project area and determine what the impacts of developing these areas would be to wildlife, plants, and vegetation communities.

A list of special-status species that would potentially be affected by development of the properties was included (nine special-status plant species and nine species of wildlife were addressed) in the document, along with several mitigation measures to reduce the impacts to less than significant. Since the 1995 EIR covered an area much larger than the project site discussed in this supplemental EIR, many of the mitigation measures are not applicable to the current project either because they are too general, or because they discuss resources that are not present at the proposed project site, such as those that address impacts to riparian habitat to the north of Mount Hermon Road.

Other differences between the biological setting described in the 1995 Specific Plan EIR and this SEIR include: special-status species have been added to the list of species that have the potential to occur on the project site, several supplemental rare plant surveys have been conducted, two wetland delineations have been carried out (although neither has been verified by the U.S. Army Corps of Engineers, and both are therefore preliminary), and multiple reconnaissance surveys for wildlife have provided a more complete and up to date understanding of the natural setting of the property.

Gateway South Office Building and Fire Station Supplemental EIR

The 2005 SEIR addresses the same property as this current SEIR, with the exception of the site of the now-approved fire station on the “teardrop” parcel across La Madrona Drive (see Chapter 3, *Project Description*, for more information). In addition, the 2005 SEIR evaluated a similar construction footprint to that of the currently proposed project.

The 2005 SEIR gave a summary of the 1995 Specific Plan EIR, including a summary of impacts and mitigation measures in the previous document. Several special-status species were added to the list of species that have the potential to occur on the site (19 plant species, and 12 wildlife species were discussed). Additionally, a wetland delineation, a tree survey of the property, and a rare plant survey were included. Documentation of these studies is included in appendices A through D of the 2005 SEIR. Appendix E is a report written that discusses entomological resources at the site. Impacts were analyzed in the 2005 SEIR and mitigation measures were provided, which would reduce or eliminate impacts. The relevance of the impacts analysis and mitigation measures provided in the 2005 SEIR for the Gateway South Office Building project with regard to the current project are discussed below in the “Impacts Analysis” of this section.

Setting

Regional

The project site is situated in the town of Scotts Valley which is located in the south-central Santa Cruz Mountains in Santa Cruz County. The Santa Cruz Mountains support a variety of unique habitats and resources due to their location and topography. The marine influence is strong on the western side of the range, where the project site is located, which leads to frequent summer fog and relatively high precipitation. This environment supports habitats dominated by coast redwood, conifer, and coast live oak trees on hillsides, while the valleys are dominated by grasslands, chaparral communities and riparian corridors. Scotts Valley has an average annual rainfall of 43 inches, and mild temperatures year round.

Project Setting

Vegetation and Wildlife

ESA biologists visited the project site on May 8, and June 2 and 20, 2008, to conduct site reconnaissance surveys, rare plant surveys, a wetland delineation, and a tree survey. Technical reports are included as appendices to this SEIR. The information gathered during these visits, combined with the pre-existing surveys and documents, and scientific literature were used to inform the following analysis.

The proposed project site supports a small variety of vegetation communities and wildlife habitats. California annual grassland is the dominant vegetation type in the area that lies within the construction footprint. This community is dominated by soft brome (*Bromus hordeaceus*), sheep sorrel (*Rumex acetosella*), and Italian rye grass (*Lolium multiflorum*). Much French broom (*Genista monspessulana*), coyote brush (*Baccharis pilularis*) and acacia (*Acacia dealbata*) grow

in dense patches at the south and east margins of the property, and sparsely throughout the grassland. The western portion of the project site is located on a steep slope where a mixed coniferous forest dominates the vegetation. A small stand of coast redwood is located near the north boundary of the property just south of the adjacent Hilton Hotel property. The trees in this stand all appear to be root sprouts from a parent tree that was damaged during a fire. Additionally, some ponderosa pine trees (*Pinus ponderosa*) are found in the mixed conifer community, but do not dominate the tree canopy.

During site visits, ESA biologists observed the following wildlife species: California quail (*Callipepla californica*), scrub jay (*Aphelocoma californica*), American robin (*Turdus migratorius*), dark-eyed junco (*Junco hyemalis*), house finch (*Carpodacus mexicanus*), morning dove (*Aenaida macroura*), red-tailed hawk (*Buteo jamaicensis*), California towhee (*Pipilo crissalis*), and Anna's hummingbird (*Calypte anna*). Other wildlife species that are expected to occur at the project site are black-tailed jackrabbit (*Lepus californicus*), black-tailed deer (*Odocoileus hemionus*), and common ground squirrel.¹

The habitat at the project site is relatively fragmented from other continuous tracts of habitat preferred by some of the sensitive species that are described from the greater Felton area, such as marbled murrelet and northern spotted owl. The project site is bordered on all sides by development and/or roads except the northwestern corner. The northwestern corner of the site connects to several acres of very low density housing within a mixed conifer and hardwood canopy cover. The level of fragmentation of the site habitat does not discourage species more habituated to human presence and activity such as black tailed deer, raccoon, and red fox, but would most likely be unsuitable for species that are sensitive to noise, road pollution, and human influence.

Wetlands

Freshwater seeps are found in several locations throughout the annual grassland of the project site. These features are thought to be a function of perched groundwater flowing naturally to the surface of the soil (see Section 4.F, *Hydrology and Water Quality*). There is a wide variety of plant species associated with these seeps including: Santa Barbara sedge (*Carex barbarae*), dense sedge (*Carex densa*), California oatgrass (*Danthonia californica*), Himalayan blackberry (*Rubus discolor*), and creeping bentgrass (*Agrostis stolonifera*). The wetland resources are discussed at length in the *Wetland Delineation*, included as **Appendix D-1**.

Special-Status Species

The term “special-status species” as used in this section is defined to include the following:

- Plants and animals that are legally protected or proposed for protection under the California Endangered Species Act (CESA) or Federal Endangered Species Act (FESA);
- Plants and animals defined as endangered or rare under Section 15380(b) of the state *CEQA Guidelines*;

¹ Local residents have reported sightings of golden eagle and red-tailed hawk at the site.

- Plants and animals designated as species of special concern by the U.S. Fish and Wildlife Service or California Department of Fish and Game;
- Animals listed as “fully protected” in the Fish and Game Code of California (Sections 3511, 4700, 5050, and 5515);²
- Raptors (birds of prey), which are specifically protected by California Fish & Game Code Section 3503.5, which prohibits the take, possession, or killing of raptors and owls, their nests, and their eggs;³ and
- Plants listed in the California Native Plant Society’s *Electronic Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2008)

The California Natural Diversity Data Base (CNDDDB) has records of 17 special-status species occurring within the Felton United States Geological Survey (USGS) 7.5 minute quadrangle containing the project site. However, ESA biologists used a CNDDDB nine-quad search, among other resources, as a baseline for special-status species that may have the potential to occur at the project site. Other databases and informational tools used to determine whether special-status species have the potential to occur at the project site include:

- U.S. Fish and Wildlife Service Official List of Federal Endangered and Threatened Species (USFWS Sacramento office, 2008);
- The California Native Plant Society 9-quad search for rare and endangered plants;
- California Department of Fish and Game Wildlife Habitat Relationships database search;
- Specimen information from the Consortium of California Herbaria and the Jepson Online Interchange (<http://ucjeps.berkeley.edu/interchange.html>);
- Scientific literature (citations are provided in the references section);
- Documents and reports of previous studies on the proposed project site, including: Harvey and Stanley and Associates, 1988;⁴ EIP, 2005⁵ and all supplemental reports contained therein, and EMC Planning Group, 1995;⁶ and
- Special-status plant surveys conducted by ESA on May 8, and June 20, 2008. Results of these surveys are presented in **Appendix D-2, *Special-Status Plant Survey Report***.

² These sections prohibit the “take or possession” of designated species, except for scientific research (or for livestock protection, in the case of bird relocation). The “fully protected” designation, dating from the 1960s, before enactment of the federal or state endangered species acts, was California’s earliest effort in to identify and protect rare animals and those possibly facing extinction. Most “fully protected” species have also subsequently been listed as threatened or endangered species under endangered species laws and regulations. About three dozen species are “fully protected.”

³ The inclusion of birds protected by Fish & Game Code Section 3503.5 is in recognition of the fact that these birds are substantially less common in California than most other birds, having lost much of their habitat to development, and the recognition that the populations of these species are therefore substantially more vulnerable to further loss of habitat and to interference with nesting and breeding than are most other birds. It is noted that a number of raptors and owls are already specifically listed as threatened or endangered by state and federal wildlife authorities.

⁴ Harvey and Stanley and Associates. 1988. Gateway South Assessment District EIR Biotic Resources.

⁵ EIP Associates, 2005. Supplemental Environmental Impact Report Gateway South Office Building and Fire Station.

⁶ EMC Planning Group, 1995. Gateway South Specific Plan Certified Revised Final Environmental Impact Report.

Multiple species that have the potential to occur on the project site were addressed in the two previous documents. Information and analysis from those documents was used, in addition to the above listed resources, to determine which special-status species have the potential to occur at the project site. **Table 4.D-1** summarizes these species and their potential to occur. The few species that have a moderate to high potential to occur at the project site are described in detail in the following section.

Special-Status Plants

Special-status plant species, even those for which there is suitable habitat, are not expected to occur at the project site. Intensive floristic surveys have been conducted at the site three times over the past 20 years, and no special-status species were observed during any of the surveys. A survey in 1988 conducted by Harvey and Stanley Associates, Inc. covered two large areas on opposite sides of Mt. Hermon Road Area 1, including the current project site. This survey was conducted in May 1988, and a comprehensive list of all species occurring within the survey boundaries is included in the report (Harvey and Stanley Associates, Inc., 1988).

A second series of inventory level plant surveys were conducted by EIP and included in the 2005 *Gateway South Office Building and Fire Station Supplemental EIR* (EIP, 2005). Site visits occurred on May 21, and June 10, 2002, and a complete list of observed species is included in Appendix C of the 2005 SEIR. Again, no special-status species were observed during the 2002 surveys.

ESA has conducted an additional round of plant surveys to update the information available to determine the potential for special-status plants at the project site. A detailed report of the findings of these surveys, including methods, results, and a comprehensive species list, is included as **Appendix D-2** of this document. Surveys were conducted May 8, June 2, and June 20, 2008.

Special-Status Wildlife

Invertebrates

Several special-status invertebrate species are known from the Scotts Valley area, including Opler's longhorn moth (*Adela oplerella*), the Ohlone tiger beetle (*Cicindela ohlone*), Mt. Hermon june beetle (*Polyphylla barbata*), and the Zayante band-winged grasshopper (*Trimerotropis infantilis*). A detailed habitat assessment of the project site's suitability with regard to these species has been conducted, and is included as **Appendix D-3** of this document. The habitat assessment discusses the low likelihood that any of the four species listed above are found at the project site based on the characteristics of the habitat present in comparison to the habitat needs of the four species. The habitat assessment was originally conducted in 2002 and included with the 2005 SEIR. The assessment was updated in 2008 for this SEIR, and the current site visits and analysis concluded that circumstances at the site have not changed since the original assessment was made. A confirmation of the continued applicability of the original habitat assessment is included as a letter in **Appendix D-4**.

**TABLE 4.D-1
SPECIAL-STATUS SPECIES CONSIDERED FOR THE PROPOSED PROJECT**

Common Name Scientific Name	Status USFWS/ CDFG/CNPS	General Habitat	Potential for Occurrence
FEDERAL OR STATE THREATENED AND ENDANGERED SPECIES			
<i>Invertebrates</i>			
Opler's longhorn moth <i>Adela oplerella</i>	FSC/--	Serpentine grasslands and on or near <i>Platystemon californica</i> , a potential host plant.	Low. The host plant does has never been observed at the site, and for this reason <i>A. oplerella</i> is not expected to occur at the project site. See <i>Habitat Assessment</i> in Appendix D-1.
Ohlone tiger beetle <i>Cicindela ohlone</i>	FE/CE	Native grassland, coastal prairie with California oatgrass and purple needlegrass.	Low. Potential marginal habitat is present, however, <i>C. ohlone</i> has never been observed on the type of soils found at the site, and is not expected to be present. See <i>Habitat Assessment</i> in Appendix D-1.
Smith's blue butterfly <i>Euphilotes enoptes smithi</i>	FE/--	Coastal sand dunes and coastal sage scrub.	Low. Suitable habitat is not present at the project site.
Mt. Hermon june beetle <i>Polyphylla barbata</i>	FE/--	Sand park vegetation which grows on Zayante sand hills and is characterized by ponderosa pine forest, maritime chaparral, and sparse grassland.	Low. Suitable habitat is not present at the project site. See <i>Habitat Assessment</i> in Appendix D-1.
Zayante band-winged grasshopper <i>Trimerotropis intantilis</i>	FE/--	Sand park vegetation which grows on Zayante sand hills and is characterized by ponderosa pine forest, maritime chaparral, and grassland areas with sparse, moderate, or dense cover.	Low. Suitable habitat is not present at the project site. See <i>Habitat Assessment</i> in Appendix D-1.
<i>Amphibians</i>			
California tiger salamander <i>Ambystoma californiense</i>	FE/CSC	Wintering sites occur in grasslands occupied by burrowing mammals; breeds in ponds and vernal pools.	Low. Suitable breeding habitat does not occur at the project site or in the vicinity of the project site. It is extremely unlikely that <i>A. californiense</i> would use the grassland in the project site since the property is bordered on the south and east by roads, the north by a parking lot and hotel, and the west by steep, mixed conifer forest.
California red legged frog <i>Rana aurora draytonii</i>	FT/CSC	Breeds in stock ponds, pools, and slow-moving streams.	Low. Suitable breeding habitat does not occur at the project site or in the vicinity of the project site. The nearest reported occurrence, according to CNDDDB records is approximately 3 miles to the northeast of the project site on Bull Creek, on the west edge of Felton.
<i>Birds</i>			
Marbled murrelet <i>Brachyramphus marmoratus</i>	FT/CE	Nests in coastal coniferous forest in tall trees, and forages in shallow coastal waters.	Low. Suitable nesting habitat exists at the project site in the mixed conifer forest on the steep slope, and forage habitat can be found nearby.
American peregrine falcon <i>Falco peregrinus anatum</i>	FD/CE	Nests in cliffs and outcrops usually adjacent to lakes.	Low. Suitable nesting and foraging habitat does not occur in the project vicinity.
Northern spotted owl <i>Strix occidentalis caurina</i>	FT/--	Dense, old growth, mixed conifer forests	Low. Suitable habitat does not occur in the project site or vicinity.

**TABLE 4.D-1 (Continued)
SPECIAL-STATUS SPECIES CONSIDERED FOR THE PROPOSED PROJECT**

Common Name Scientific Name	Status USFWS/ CDFG/CNPS	General Habitat	Potential for Occurrence
FEDERAL OR STATE THREATENED AND ENDANGERED SPECIES (cont.)			
<i>Plants</i>			
Marsh sandwort <i>Arenaria paludicola</i>	FE/CE/1B.1	Marshes and swamps, sandy openings.	Low. This plant is known from very few populations, however one population is found in Scotts Valley. The wetland habitat at the project site is likely not wet enough for <i>A. paludicola</i> . This species has not been observed during current or past rare plant surveys.
Ben Lomond spineflower <i>Chorizanthe pungens</i> var. <i>hartwegiana</i>	FE/--/1B.1	Lower coniferous forest, specifically the maritime ponderosa pine sandhills.	Low. Marginal habitat is found at the project site, and there are reported occurrences from the Scotts Valley area, however, this species has not been observed at the project site during appropriately timed surveys.
Scotts Valley spineflower <i>Chorizanthe robusta</i> var. <i>hartwegii</i>	FE/--/1B.1	Valley and foothill grasslands, often on mudstone or sandstone substrates or exposed bedrock with very thin soils. 230-245 meters.	Low. Suitable habitat for this species does not exist at the project site, and the elevation of the project site is too low for <i>C.r.</i> var. <i>hartwegii</i> . This species was not observed during appropriately timed surveys.
Robust spineflower <i>Chorizanthe robusta</i> var. <i>robusta</i>	FE/--/1B.1	Sandy or gravelly terraces in coastal scrub, coastal dunes, cismontane woodland, chaparral.	Low. Suitable habitat is not found at the project site, and this species has not been observed at the project site during appropriately timed surveys.
Santa Cruz cypress <i>Cupressus abramsiana</i>	FE/CE/1B.2	Sandstone or granite substrates in lower montane coniferous forest, chaparral, or closed-cone coniferous forest.	Absent. Cypress trees have not been observed during current or past plant surveys.
Santa Clara Valley dudleya <i>Dudleya setchellii</i>	FE/--/1B.1	Cismontane woodland, valley and foothill grasslands on serpentine or rocky parent material	Low. Prefers rocky substrate and serpentine, which are not found at the project site.
Santa Cruz wallflower <i>Erysimum teretifolium</i>	FE/CE/1B.1	Inland marine sands in chaparral, lower montane coniferous forest.	Low. Marginal habitat is found at the project site, and there are no recorded occurrences in the Scotts Valley area. This species was not observed during appropriately timed surveys.
Santa Cruz tarplant <i>Holocarpha macradenia</i>	FT/FE/1B.1	Clay or sandy valley or foothill grasslands, coastal scrub, coastal prairie.	Low. <i>H. macradenia</i> is currently known from very few populations, and has difficulty competing with non-native plants (of which there are many in the grassland at the project site).
White-rayed pentachaeta <i>Pentachaeta bellidiflora</i>	FE/CE/1B.1	Open, dry, rocky slopes of valley and foothill grasslands, cismontane woodland. Often on serpentine.	Low. Only known from one occurrence in the Santa Lucia mountains. Marginal habitat occurs at the project site. <i>P. bellidiflora</i> was not observed during current or past surveys.
San Francisco popcorn flower <i>Plagiobothrys diffusus</i>	FE/--/1B.1	Coastal prairie, valley and foothill grassland.	Low. Suitable habitat exists at the project site, however, <i>P. diffusus</i> was not observed during past or current surveys.
Scotts Valley polygonum <i>Polygonum hickmanii</i>	FE/CE/1B.1	Valley and foothill grasslands, often on mudstone or sandstone substrates or exposed bedrock with very thin soils.	Low. Suitable habitat is not found at the project site. This species is very sensitive to exotic species invasion which is found throughout the site.

TABLE 4.D-1 (Continued)
SPECIAL-STATUS SPECIES CONSIDERED FOR THE PROPOSED PROJECT

Common Name Scientific Name	Status USFWS/ CDFG/CNPS	General Habitat	Potential for Occurrence
FEDERAL OR STATE SPECIES OF SPECIAL CONCERN			
<i>Birds</i>			
Cooper's hawk <i>Accipiter cooperii</i>	--/CSC	Nests in riparian growths of deciduous trees and live oak woodlands	Low. Oaks and other trees may provide suitable nesting sites for this species.
Northern goshawk <i>Accipiter gentilis</i>	--/CSC	Mid and high elevation dense conifer forests, and low elevation riparian foothill woodlands with adjacent open areas. Nests in medium to large diameter trees with dense foliage.	Low. The range of this species is mostly higher elevation.
Sharp-shinned hawk <i>Accipiter striatus</i>	--/CSC	Nests in riparian growths of deciduous trees and live oaks.	Low. Oaks and other trees may provide suitable nesting sites for this species.
Golden eagle <i>Aquila chrysaetos</i>	Fully protected & 3503.5	Foothills, arid plateaus, and mountains with sparse vegetation. Nests in cliffs with overhanging ledges or large trees in open areas. Sensitive to human disturbance.	Low. Suitable nesting habitat is not present at the project site or in the immediate vicinity. The site is surrounded by developed areas which would discourage <i>A. chrysaetos</i> .
Long-eared owl <i>Asio otus</i>	--/CSC	Dense riparian oak thickets. Sensitive to riparian habitat fragmentation and urban development.	Low. There is no riparian habitat at the site. Furthermore, this site is near urban development.
Burrowing owl <i>Athene cunicularia</i>	FSC/CSC	Nests and forages in low-growing grasslands that support burrowing mammals	Low. Suitable breeding habitat is not readily available on the project site. There are minimal small-diameter mammal burrows, and the vegetation is taller than that preferred by <i>A. cunicularia</i> .
Red-tailed hawk <i>Buteo jamaicensis</i>	--/3503.5	Open stands of deciduous and coniferous forests; frequents croplands and pastures.	High. Nesting trees are available throughout the site, though on-site nesting has not been reported.
Red-shouldered hawk <i>Buteo lineatus</i>	--/3503.5	Dense riparian woodland, hardwood-conifer habitats adjacent to swamps, marshes, and wet meadows.	Moderate. Nesting trees are available throughout the site, though on-site nesting has not been reported.
Vaux's swift <i>Chaetura vauxi</i>	--/CSC	Nests in redwood, Douglas fir, and other coniferous forests. Forages in various habitats throughout the state.	Low. Acceptable nesting and forage habitat is found at the project site.
Northern harrier <i>Circus cyaneus</i>	--/CSC	Nests in coastal freshwater and saltwater marshes, nest and forages in grasslands.	Low. Grasslands on the site provide suitable forage habitat and marginal nesting habitat for this species.
White-tailed kite <i>Elanus leucurus</i>	FSC/Fully Protected & 3503.5	Nest in tall trees or shrubs in open areas. Forage over fields, grassland, marshes, and savannah habitats.	Low. Nesting and roosting habitat occurs within the project area. Forage area on the project site is extremely limited. Nesting habitat would not be significantly impacted by the project.
Merlin <i>Falco columbarius</i>	--/CSC	Open grasslands and woodlands. Nests mostly in conifers.	Low. Suitable nesting and foraging habitat exists at the site. Nesting habitat would not be significantly impacted by the project.
American kestrel <i>Falco sparverius</i>	--/3503.5	Nests in cavities in large trees near open areas.	Moderate. Suitable forage and nesting habitat occurs at the project site. However, nesting habitat would probably not be impacted by the development.

TABLE 4.D-1 (Continued)
SPECIAL-STATUS SPECIES CONSIDERED FOR THE PROPOSED PROJECT

Common Name Scientific Name	Status USFWS/ CDFG/CNPS	General Habitat	Potential for Occurrence
FEDERAL OR STATE SPECIES OF SPECIAL CONCERN (cont.)			
<i>Birds (cont.)</i>			
Loggerhead shrike <i>Lanius ludovicianus</i>	--/CSC	Open foothills, lowlands, and cropland, but avoids urban areas. Nests in well concealed, dense vegetation.	Low. Suitable nesting habitat and foraging habitat may be present, but the project site is probably too urban for this species.
Elf owl <i>Micrathene whitneyi</i>	--/CE	Occupies desert scrub and grassland habitat, nests in woodpecker excavated holes or tree cavities primarily in mature cottonwood, sycamore, or willow.	Low. Suitable foraging habitat exists at the project site in the annual and perennial grasslands, but nesting habitat is not present.
Osprey <i>Pandion haliaetus</i>	--/CSC	Nest on exposed treetops or other man-made structures. Forage over clean open waters.	Low. Suitable roosting and breeding habitat for this species does not occur on the project site.
Purple martin <i>Progne subis</i>	--/CSC	Valley foothill, riparian, and hardwood conifer forest habitats. Forages in open habitats during migration, and nests in tree cavities, snags, under bridges and in structures.	Low. Occupies a variety of habitats, especially during migration, and is tolerant of urban development. There is suitable forage habitat in the grassland on the site, but nesting habitat would not be impacted by the project.
<i>Mammals</i>			
Pallid bat <i>Antrozous pallidus</i>	--/CSC	Occupies grassland, shrubland, forest, and woodland habitats at low elevations. Forages in open lowland areas.	Low. Potential roosting habitat occurs in the mature oak trees, and foraging habitat may occur in grasslands.
Townsend's Pacific big-eared bat <i>Corynorhinus townsendii townsendii</i>	FSC/CSC	Inhabits a variety of habitats, requires caves or human-made structures for roosting.	Low. Potential roosting habitat is not present, however foraging habitat may occur in grasslands.
Western mastiff bat <i>Eumops perotis californicus</i>	--/CSC	Open conifer woodland, annual and perennial grassland, and urban areas. Roosts in rock crevices and buildings	Low. Roosting habitat does not occur at the project site, however, suitable forage habitat does occur.
Long-eared myotis bat <i>Myotis evotis</i>	--/CSC	Various woodland, conifer, and brush habitats. Roosts in crevices in buildings, under bark and in snags.	Low. Marginal forage and roosting habitat occur at the site.
Fringed myotis bat <i>Myotis thysanodes</i>	--/CSC	Conifer-hardwood forest from sea level to 7,000 ft in elevation. Prefers open habitats and areas with water (streams, lakes, ponds). Roosts in caves, buildings and crevices.	Low. Suitable forage habitat exists at the project site, roosting opportunities are limited to trees.
Long-legged myotis bat <i>Myotis volans</i>	--/CSC	Many woodland and forest habitats throughout California. Roosts in caves, mines, crevices, and under tree bark.	Low. Suitable forage and roosting habitat occur at the project site, but not in the area that would be developed.
San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i>	--/CSC	Many forest and chaparral habitats with moderate canopy and moderate to dense understory of woody plants. Uses woody plant material to build nests at the base of mature trees.	Low. Suitable habitat exists at the project site in the mixed conifer forest, however, no nests have been observed.

TABLE 4.D-1 (Continued)
SPECIAL-STATUS SPECIES CONSIDERED FOR THE PROPOSED PROJECT

Common Name Scientific Name	Status USFWS/ CDFG/CNPS	General Habitat	Potential for Occurrence
CNPS LISTED PLANTS			
<i>Plants</i>			
Bent-flowered fiddleneck <i>Amsinckia lunaris</i>	--/--/1B.2	Coastal bluff scrub, open cismontane woodland, and valley and foothill grassland	Low. The nearest documented occurrence of <i>A. lunaris</i> is 17 miles away. Additionally, <i>A. lunaris</i> was not observed at the project site during current or past plant surveys.
Slender silver moss <i>Anomobryum julaceum</i>	--/--/1B.2	Broadleaf upland forest, lower montane coniferous forest, on damp rock and soil outcrops and roadcuts.	Low. Rock and soil outcrops and roadcuts are not present at the project site.
Santa Cruz mountains Manzanita <i>Arctostaphylos andersonii</i>	--/--/1B.2	Openings and edges of chaparral, upland forest.	Absent. Current and past surveys found no manzanita species at the site.
Schreiber's Manzanita <i>Arctostaphylos glutinosa</i>	--/--/1B.2	Closed cone coniferous forest, and chaparral on diatomaceous shale.	Absent. Current and past surveys found no manzanita species at the site.
Kings mountain Manzanita <i>Arctostaphylos regismontana</i>	--/--/1B.2	Broadleaf upland forest, chaparral, and coniferous forest on granitic or sandstone parent material.	Absent. Current and past surveys found no manzanita species at the site.
Bonny Doon Manzanita <i>Arctostaphylos silvicola</i>	--/--/1B.2	Closed-cone coniferous forest, chaparral, lower montane coniferous forest.	Absent. Current and past surveys found no manzanita species at the site.
Santa Cruz mountains pussypaws <i>Calyptridium parryi</i> var. <i>hesseae</i>	--/--/3	Chaparral, cismontane woodland. 305-1115 meters elevation	Low. Very little is known about this species and its habitat, however, the elevation range of the project site is too low for this species, and it was not observed during any of the current or past surveys.
Swamp harebell <i>Campanula californica</i>	--/--/1B.2	Mesic coniferous forest, marshes, swamps, meadows, seeps, coastal prairie.	Low. Suitable habitat exists at the site, and this species has been observed in the Scotts Valley area. However, current and past plant surveys have not found <i>C. californica</i> at the site.
Bristly sedge <i>Carex comosa</i>	--/--/2.1	Coastal prairie, marshes and swamps, valley and foothill grassland.	Low. Potential habitat exists at the site, however ESA did not observe this species during a properly timed rare plant survey.
Deceiving sedge <i>Carex saliniformes</i>	--/--/1B.2	Coastal prairie, coastal scrub, meadows, seeps, and marshes.	Low. Potential habitat exists at the site, however ESA did not observe this species during a properly timed rare plant survey.
Mt. Hamilton fountain thistle <i>Cirsium fontinale</i> var. <i>campylon</i>	--/--/1B.2	Chaparral, cismontane woodland, valley and foothill grassland, and serpentine seeps.	Low. There are no specimen records from Santa Cruz county, and very marginal habitat exists at the project site. This plant was not observed at the project site during current or past surveys.
San Francisco collinsia <i>Collinsia multicolor</i>	--/--/1B.2	Closed-cone coniferous forest, coastal scrub, sometimes serpentine	Low. Suitable habitat is not present at the project site. This plant was not observed at the project site during current or past surveys

TABLE 4.D-1 (Continued)
SPECIAL-STATUS SPECIES CONSIDERED FOR THE PROPOSED PROJECT

Common Name Scientific Name	Status USFWS/ CDFG/CNPS	General Habitat	Potential for Occurrence
CNPS LISTED PLANTS (cont.)			
<i>Plants (cont.)</i>			
Tear drop moss <i>Dacryophyllum falcifolium</i>	--/--/1B.3	Coniferous forest on carbonate parent material	Low. Suitable habitat is not present at the project site. This plant was not observed at the project site during current or past surveys
Ben Lomond buckwheat <i>Eriogonum nudum</i> var. <i>decurrens</i>	--/--/1B.1	Sandy chaparral, cismontane woodland, lower montane coniferous forest.	Low. Marginal habitat exists at the project site, however, <i>E. n.</i> var. <i>decurrens</i> was not observed during current or past surveys.
Loma Prieta hoita <i>Hoita strobilina</i>	--/--/1B.1	Chaparral, cismontane woodland, and serpentine riparian woodland.	Low. Marginal habitat exists at the project site, but <i>H. strobilina</i> was not observed during current or past surveys.
Kellogg's horkelia <i>Horkelia cuneata</i> ssp. <i>sericea</i>	--/--/1B.1	Sandy or gravelly openings in coastal scrub, coastal dunes, chaparral, closed-cone coniferous forest.	Low. Suitable habitat is not present at the project site. This plant was not observed at the project site during current or past surveys
Wolly-headed lessingia <i>Lessingia hololeuca</i>	--/--/3	Broadleaf upland forest, coastal scrub, lower montane coniferous forest, and serpentine grassland.	Moderate. <i>L. hololeuca</i> has a very broad habitat, and has been documented as occurring throughout the inner coast range both north and south of Scotts Valley.
Smooth lessingia <i>Lessingia micradenia</i> var. <i>glabrata</i>	--/--/1B.2	Chaparral and serpentine cismontane woodlands.	Low. Suitable habitat is not present at the project site.
Mt. Diablo cottonweed <i>Micropus amphibolus</i>	--/--/3.2	Broadleaf upland forest, chaparral, cismontane woodland and rocky grassland.	Low. <i>M. amphibolus</i> prefers bare, rocky slopes, which do not occur at the project site. Additionally, this species was not observed during rare plant surveys at the site.
Marsh microseris <i>Microseris paludosa</i>	--/--/1B.2	Closed cone coniferous forest, cismontane woodland, coastal scrub, and grassland	Low. Suitable habitat may exist at the project site, however no plants were observed during the surveys, and there are no recorded occurrences in the Scotts Valley area.
Robust monardella <i>Monardella villosa</i> ssp. <i>globosa</i>	--/--/1B.2	Oak woodland, chaparral openings.	Low. Marginal habitat occurs at the project site, and <i>M. v.</i> ssp. <i>villosa</i> was not observed during current or past plant surveys.
Dudley's lousewort <i>Pedicularis dudleyi</i>	--/CR/1B.2	Coastal chaparral or forest.	Low. Marginal habitat occurs at the project site, and there are no occurrences reported in the Scotts Valley area. <i>P. dudleyi</i> was not observed during current or past plant surveys.
Santa Cruz mountains beardtongue <i>Penstemon rattanii</i> var. <i>kleei</i>	--/--/1B.2	Lower montane coniferous forest, chaparral.	Low. Very little suitable habitat exists at the project site. This species has not been observed during appropriately timed surveys.
Monterey pine <i>Pinus radiata</i>	--/--/1B.1	Closed cone pine forest, oak woodland	Absent. <i>P. radiata</i> was not observed in current or past surveys.

TABLE 4.D-1 (Continued)
SPECIAL-STATUS SPECIES CONSIDERED FOR THE PROPOSED PROJECT

Common Name Scientific Name	Status USFWS/ CDFG/CNPS	General Habitat	Potential for Occurrence
CNPS LISTED PLANTS (cont.)			
<i>Plants (cont.)</i>			
White flowered piperia <i>Piperia candida</i>	--/--/1B.2	Coniferous forest in open to shaded sites.	Low. <i>P. candida</i> was not observed during rare plant surveys, and the nearest recorded specimen was collected 9 miles to the north of the project site.
Choris' popcorn-flower <i>Plagiobothrys chisianthus</i> var. <i>chorisianthus</i>	--/--/2.2	Grassy and moist places, coastal scrub, chaparral	Low. Properly timed surveys did not find any species of <i>Plagiobothrys</i> at the project site.
Pine rose <i>Rosa pinetorum</i>	--/--/2.2	Closed-cone coniferous forest	Low. <i>R. pinetorum</i> was not observed at the project site during current or past plant surveys.
San Francisco campion <i>Silene verecunda</i> ssp. <i>verecunda</i>	--/--/1B.2	Sandy grassland, chaparral, and coastal bluffs	Low. Suitable habitat is present at the project site, but <i>S. v. ssp. verecunda</i> was not observed during appropriately timed surveys.
Santa Cruz clover <i>Trifolium buckwestiorum</i>	--/--/1B.1	Gravelly margins of coastal prairie, cismontane woodland, and upland forest.	Low. <i>T. buckwestiorum</i> typically grows in disturbed areas, however there is no gravel substrate at the site, and this species was not observed during current or past plant surveys.

STATUS CODES:

Federal (U.S. Fish and Wildlife Service [USFWS]):

FE = Listed as Endangered (in danger of extinction) by the federal government.

FT = Listed as Threatened (likely to become Endangered within the foreseeable future) by the federal government.

FP = Proposed for Listing as Endangered or Threatened.

FC = Candidate to become a *proposed* species.

FD = Formerly listed as endangered but subsequently removed from the federal Endangered Species List.

FSC = Former Federal Species of Concern. The USFWS no longer lists Species of Concern but recommends that species considered to be at potential risk by a number of organizations and agencies be addressed during project environmental review. *NMFS still lists Species of Concern.

State (California Department of Fish and Game [CDFG]):

CE = Listed as Endangered by the State of California.

CT = Listed as Threatened by the State of California.

CR = Listed as Rare by the State of California (plants only).

CSC = California Species of Special Concern.

Fully Protected = Species Listed as "fully protected" under Fish and Game Code Secs. 3511, 4700, 5050, and 5515.

3503.5 = Protection for nesting species of Falconiformes (hawks) and Strigiformes (owls).

*Special animal—listed on CDFG's Special Animals List.

California Native Plant Society (CNPS):

List 1A=Plants presumed extinct in California.

List 1B=Plants rare, Threatened, or Endangered in California and elsewhere.

List 2= Plants rare, Threatened, or Endangered in California but more common elsewhere.

An extension reflecting the level of threat to each species is appended to each rarity category as follows:

.1 – Seriously endangered in California.

.2 – Fairly endangered in California.

.3 – Not very endangered in California.

SOURCE: CDFG, 2007; CNPS, 2007

Birds

Raptors and Nesting Birds. Raptors that may nest or forage in mixed conifer forest and grasslands in the project area include Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), white-tailed kite (*Elanus leucurus*), American kestrel (*Falco sparverius*), and Northern harrier (*Circus cyaneus*). These species are protected under California Fish & Game Code Section 3503.5; Cooper's hawk, sharp-shinned hawk, and Northern harrier are state Species of Concern, while white-tailed kite is a federal species of concern and a state fully protected species. All except the Northern harrier nest in trees and would be expected to nest in the mixed conifer community located on the steep slope rather than the younger, more sparsely arranged trees in the grassland dominated area.

A number of special-status songbirds and passerines (relatively smaller perching birds) occur or have the potential to occur in the mixed conifer forest and grassland habitats in the project area and include, among others: loggerhead shrike (*Lanius ludovicianus*), Vaux's swift (*Chaetura vauxi*), and the purple martin (*Progne subis*). Disturbances to nesting birds that contribute to the incidental loss of fertile eggs or nests, or result in nest abandonment are prohibited under the California Department of Fish and Game (CDFG) Code Section 3503, with additional protection from the Migratory Bird Treaty Act.

Mammals

Special-status bats species that have the potential to occur on the project site due to the presence of suitable forage and roosting habitat. The pallid bat (*Antrozous pallidus*) is a California species of concern that inhabits and forages in grassland, woodland, and shrubland habitats throughout most of California. The pallid bat feeds mostly on insects, and prefers to forage in open, dry areas. This bat roosts in caves, under the bark of trees, and in old buildings, and is particularly sensitive to disturbances to roosting sites. The pallid bat could potentially occupy mature oak trees at the project site, and use the open grassland as a foraging area.

The Townsend's Pacific big-eared bat (*Corynorhinus townsendii townsendii*) occurs in a variety of habitats and uses caves, mines, tunnels, buildings, or other human-made structures for roosting. This species also has a low potential to occur at the project site, and there is no suitable roosting habitat. The Western mastiff bat (*Eumops perotis californicus*), and the fringed myotis bat (*Myotis thysanodes*), may potentially forage in the conifer forest or open grassland, but suitable roosting habitat was not found at the project site.

The San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) has a low potential to occur on the steeper slopes in the mixed conifer vegetation at the site where this species likes to build nests at the base of large trees. Existing nests were not observed by ESA during reconnaissance surveys.

Designated Critical Habitat

The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Services (NMFS) designate critical habitat with the purpose of contributing to the conservation of threatened and endangered species and the ecosystems upon which they depend. The designation of an area as critical habitat provides additional protection to habitat only when there is a federal nexus with regard to some aspect of the project, for example, when a federal agency is implementing, or issuing a permit for, a project. Critical habitat protection is only relevant when other statutory or regulatory protections, policies, or other factors relevant to agency decision-making would not prevent the destruction or adverse modification of habitat. Designation of critical habitat triggers the prohibition of destruction or adverse modification of that habitat, but it does not require specific actions to restore or improve habitat.

The NMFS designated critical habitat throughout California for central California coast steelhead on September 2, 2005. The nearest creek to the project site, Carbonera Creek, is within the critical habitat designation. However, Carbonera Creek is not within the property boundary of the project site, and no direct or indirect effects to steelhead habitat are expected to result from the proposed project. Critical habitat for the Santa Cruz tarplant (*Holocarpha macradenia*) is designated throughout coastal and inland portions of Santa Cruz County and Monterey County, but none of the designated critical habitat units are located in the Scotts Valley area. Therefore, the proposed project would not have any impacts to the critical habitat of Santa Cruz tarplant.

Regulatory Framework

A complex array of state and federal regulatory guidelines directs how the jurisdictional boundaries of wetlands are identified, defined, and regulated. The U.S. Army Corps of Engineers (USACOE or “the Corps”) is the major regulatory agency involved in wetland regulation under Section 404 of the federal Clean Water Act and Section 10 of the federal Rivers and Harbors Act. Additional agencies that have jurisdiction over onsite wetlands include the U.S. Environmental Protection Agency (U.S. EPA) (oversight authority on Corps Section 404 permits), USFWS, CDFG, and the California State Water Resources Control Board (SWRCB).

CEQA directs each lead agency to consult with the CDFG on any project the agency initiates that is not statutory or categorically exempt from CEQA. The Native Plant Protection Act also affords limited protection to special-status plant species. A formal consultation process must be initiated with the CDFG for projects which may or will have an adverse effect on state-listed species (i.e., listed under CESA).

Similarly, the permitting responsibilities of the Corps include consultation with the USFWS when federally listed species (i.e., listed under FESA) are at risk. At both the state and federal levels, the process requires that a biological assessment be prepared to determine the effects on listed species. With both USFWS and CDFG policy, “species of special concern” are not subject to the same consultation requirements as listed endangered, rare, or threatened species, but the agencies encourage informal consultation for species of special concern that may become officially listed prior to completion of the CEQA process.

Special-Status Species

Federal Endangered Species Act

Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as threatened or endangered (16 United States Code [USC] 1533[c]). Two federal agencies oversee the FESA: the USFWS has jurisdiction over plants, wildlife, and resident fish, while the National Marine Fisheries Service (NMFS) has jurisdiction over anadromous fish and marine fish and mammals. Section 7 of the FESA mandates that all federal agencies consult with the USFWS and NMFS to ensure that federal agency actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species. The FESA prohibits the “take”⁷ of any fish or wildlife species listed as threatened or endangered, including the destruction of habitat that could hinder species recovery.

Under Section 9 of the FESA, the take prohibition applies only to wildlife and fish species. However, Section 9 does prohibit the removal, possession, damage, or destruction of any endangered plant from federal land. Section 9 also prohibits acts to remove, cut, dig up, damage, or destroy an endangered plant species in non-federal areas in knowing violation of any state law or in the course of criminal trespass. Candidate species and species that are proposed or under petition for listing receive no protection under Section 9 of the FESA.

Section 10 of the FESA requires the issuance of an “incidental take” permit before any public or private action may be taken that would potentially harm, harass, injure, kill, capture, collect, or otherwise hurt (i.e., take) any individual of an endangered or threatened species. The permit requires preparation and implementation of a habitat conservation plan that would offset the take of individuals that may occur, incidental to implementation of the project, by providing for the overall preservation of the affected species through specific mitigation measures.

Pursuant to the requirements of the FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the project area and whether the proposed action would have a potentially significant impact on such species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]). Therefore, project-related impacts to these species or their habitats would be considered significant in this SEIR. The USFWS also publishes a list of candidate species. Species on this list receive “special attention” from federal agencies during environmental review, although they are not protected otherwise under the FESA.

⁷ Take is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such conduct.

The candidate species are those for which the USFWS has sufficient biological information to support a proposal to list as endangered or threatened. Project impacts to such species would be considered significant in this SEIR. Similarly, the permitting responsibilities of the Corps include consultation with the USFWS and NMFS when federally listed species (i.e., listed under the FESA) are at risk. At both the state and federal levels, the process requires that a biological assessment be prepared to determine the effects on listed species. With both USFWS and CDFG policy, “species of special concern” are not subject to the same consultation requirements as listed endangered, rare, or threatened species, but the agencies encourage informal consultation for species of special concern that may become officially listed before completion of the CEQA process.

Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act states that without a permit issued by the U.S. Department of the Interior, it is unlawful to pursue, hunt, take, capture, or kill any migratory bird. The federal Migratory Bird Treaty Act (16 United States Code § 703 Supp. I, 1989) prohibits the killing, possessing, or trading migratory birds, bird parts, eggs, and nests, except in accordance with regulations prescribed by the Secretary of the Interior. Project impacts to these species would not be considered significant unless they are known or have high potential to nest in the project area or to rely on it for its primary foraging.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act makes it illegal to import, export, take (which includes molest or disturb), sell, purchase, or barter any bald eagle (*Haliaeetus leucocephalus*) or golden eagle (*Aquila chrysaetos*) or part thereof. The USFWS oversees enforcement of this act.

California Endangered Species Act

California implemented its own Endangered Species Act (CESA) in 1984. The state act prohibits the take of state-listed endangered and threatened species; however, habitat destruction is not included in the state’s definition of take. Section 2090 of CESA requires state agencies to comply with endangered species protection and recovery and to promote conservation of these species. The CDFG administers the act and authorizes take through California Fish and Game Code Section 2081 agreements (except for designated “fully protected species,” which are separately governed).

Regarding listed rare and endangered plant species, CESA defers to the California Native Plant Protection Act (NPPA) of 1977, which prohibits importing of rare and endangered plants into California, and the taking and selling of rare and endangered plants. The CESA includes an additional listing category for threatened plants which are not regulated under the NPPA. In this case, plants listed as rare or endangered under the NPPA are not protected under CESA but can be identified as special-status species under the definition in CEQA Guidelines Section 15380(b). In addition, plants that are not state-listed but meet the state standards for listing, are also captured within the meaning of special-status species under Section 15380(b). In practice, this is generally interpreted to mean that all species on lists 1B and 2 of the CNPS Inventory potentially

qualify for protection under CEQA, and some species on lists 3 and 4 of the CNPS Inventory may qualify for designation as special-status species under CEQA. List 3 includes plants for which more information is needed on taxonomy or distribution. List 4 includes plants of limited distribution that may qualify for protection if their abundance and distribution characteristics are found to meet the state standards for listing.

California Fish and Game Code Bird Protections

Section 3503 of the CDFG Code prohibits destruction of the nests or eggs of most native resident and migratory bird species. Section 3503.5 of the CFGC specifically prohibits the taking of raptors or destruction of their nests or eggs.

The legal framework and authority for the State's program to conserve plants is derived from various legislative sources, including CESA, the California Native Plant Protection Act (Fish and Game Code Section 1900 – 1913), the CEQA Guidelines, and the Natural Communities Conservation Planning Act.

Native Plant Protection Act

California Fish and Game Code Section 1900–1913, also known as the Native Plant Protection Act is intended to preserve, protect, and enhance endangered or rare native plants in California. The act directs CDFG to establish criteria for determining what native plants are rare or endangered. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. The act also directs the California Fish and Game Commission to adopt regulations governing the taking, possessing, propagation, or sale of any endangered or rare native plant.

Vascular plants listed as rare or endangered by the CNPS, but which may have no designated status or protection under federal or State endangered species legislation, are defined as follows:

- List 1A: Plants Presumed Extinct.
- List 1B: Plants Rare, Threatened, or Endangered in California and elsewhere.
- List 2: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere.
- List 3: Plants about Which More Information is Needed – A Review List.
- List 4: Plants of Limited Distribution – A Watch List.

In general, plants appearing on CNPS List 1A, 1B, or 2 are considered to meet the criteria of CEQA Guidelines Section 15380 and effects to these species are considered to be special-status species in this report. Additionally, plants listed on CNPS List 1A, 1B or 2 meet the definition of Section 1901, Chapter 10 (Native Plant Protection Act) and Sections 2062 and 2067 (California Endangered Species Act) of the California Fish and Game Code.

Jurisdictional Waters (Including Wetlands)

Definitions

Waters of the United States. The term “waters of the United States,” as defined in the Code of Federal Regulations (33 C.F.R. § 328.3[a]; 40 C.F.R. § 230.3[s]), refers to:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:
 - which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - which are used or could be used for industrial purposes by industries in interstate commerce.
4. All impoundments of waters otherwise defined as waters of the United States under the definition;
5. Tributaries of waters identified in paragraphs (1) through (4);
6. Territorial seas; and
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6).
8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA (33 CFR 328.3[a][8]).

Wetlands are ecologically productive habitats that support a rich variety of both plant and animal life. The importance of wetlands has increased due to their value as recharge areas and filters for water supplies and to their widespread filling and destruction to enable urban and agricultural development. Examples of wetlands may include freshwater marsh, seasonal wetlands, and vernal pool complexes that are adjacent to waters of the U.S. In a jurisdictional sense, there are two commonly used wetland definitions, one adopted by the U.S. Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (Corps) and a separate definition, originally developed by U.S. Fish and Wildlife Service (USFWS), which has been adopted by agencies in the State of California that have regulatory authority over wetlands. Both definitions are presented below.

Federal Wetland Definition

Under federal law, wetlands are a subset of “waters of the United States” and receive protection under Section 404 of the Clean Water Act. Wetlands are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration that are sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetland determination under the federal wetland definition adopted by the Corps requires the presence of three factors: (1) wetland hydrology; (2) plants adapted to wet conditions; and (3) soils that are routinely wet or flooded [33 C.F.R. § 328.3(b)]. In January 2001, the Supreme Court of the United States ruled that certain isolated wetlands do not fall under the jurisdiction of the Clean Water Act (*Solid Waste Agency of Northwestern Cook County v. United States Army Corps of Engineers et al.*).

California Wetland Definition

The California Department of Fish and Game (CDFG) and the California Coastal Commission (CCC) have adopted the USFWS Cowardin (1979) definition of wetlands. While the federal definition of wetlands requires three wetland identification parameters to be met, the Cowardin definition can be satisfied under some circumstances with the presence of only one parameter. Thus, identification of wetlands by State agencies may include areas that are permanently or periodically inundated or saturated and without wetland vegetation or soils, such as rocky shores, or areas that presume wetland hydrology based on the presence of at least one of the following: a) a seasonal or perennial dominance by hydrophytes⁸ or b) the presence of hydric⁹ soils. CDFG does not normally assert jurisdiction over wetlands unless they are subject to Streambed Alteration Agreements (CDFG Code Sections 1600–1616) or they support state-listed endangered species.

U.S. Army Corps of Engineers and U.S. Environmental Protection Agency Regulations

The U.S. Army Corps of Engineers 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 Sections 404 and 401 of the Clean Water Act. Projects that would result in the placement of dredged or fill material into waters of the United States require a Section 404 permit from the Corps. Some classes of fill activities may be authorized under General or Nationwide permits if specific conditions are met. Nationwide permits do not authorize activities that are likely to jeopardize the existence of a threatened or endangered species (listed or proposed for listing under the FESA). In addition to conditions outlined under each Nationwide Permit, project-specific conditions may be required by the Corps as part of the Section 404 permitting process. When a project’s activities do not meet the conditions for a Nationwide Permit, an Individual Permit may be issued.

⁸ A *hydrophyte* is, literally, a water loving plant, i.e., one that is adapted to growing in conditions where the soil lacks oxygen, at least periodically during the year, due to saturation with water.

⁹ A *hydric* soil is one that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile.

Section 401 of the Clean Water Act requires an applicant for a Corps permit to obtain state certification that the activity associated with the permit will comply with applicable state effluent limitations and water quality standards. In California, water quality certification, or a waiver, must be obtained from the Regional Water Quality Control Board for both Individual and Nationwide Permits.

The Corps also regulates activities in navigable waters under Section 10 of the Rivers and Harbors Act. The construction of structures, such as tide gates, bridges, or piers, or work that could interfere with navigation, including dredging or stream channelization, may require a Section 10 permit, in addition to a Section 404 permit if the activity involves the discharge of fill.

Finally, the federal government also supports a policy of minimizing “the destruction, loss, or degradation of wetlands.” Executive Order 11990 (May 24, 1977) requires that each federal agency take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.

In recent years several Supreme Court cases have challenged the scope and extent of the Corps’ jurisdiction over waters of the United States and have led to several reinterpretations of that authority. The most recent of these decisions are the case of *Solid Waste Agency of Northern Cook County (SWANCC) v. the Army Corps of Engineers* (January 9, 2001) and *Rapanos v. United States* (June, 2006). The SWANCC decision found that jurisdiction over non-navigable, isolated, intrastate waters could not be based solely on the use of such waters by migratory birds. The reasoning behind the SWANCC decision could be extended to suggest that waters need a demonstrable connection with a ‘navigable water’ to be protected under the Clean Water Act. The introduction of the term isolated has led to the consideration of the relative connectivity between waters and wetlands as a jurisdictionally relevant factor. The more recent Rapanos case further questioned the definition of “waters of the United States” and the scope of federal regulatory jurisdiction over such waters but resulted in a split decision which did not provide definitive answers but expanded on the concept that a “significant nexus” with traditional navigable waters was needed for certain waters to be considered jurisdictional.

On June 5, 2007, the EPA and the Corps released guidance on Clean Water Act jurisdiction, in response to the *Rapanos* Supreme Court decision, which can be used to support a finding of Clean Water Act coverage for a particular water body when either: a) there is a significant nexus between the stream or wetland in question and navigable waters in the traditional sense; or b) a relatively permanent water body is hydrologically connected to traditional navigable waters and/or a wetland has a surface connection with that water. According to this guidance the Corps and the EPA will take jurisdiction over the following waters:

1. Traditional navigable waters, which are defined as all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. Wetlands adjacent to traditional navigable waters; including adjacent wetlands that do not have a continuous surface connection to traditional navigable waters;

3. Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months); and
4. Wetlands adjacent to non-navigable tributaries as defined above that have a continuous surface connection to such tributaries (e.g. they are not separated by uplands, a berm, dike, or similar feature).

The EPA and the Corps decide jurisdiction over the following waters, based on a fact-specific analysis to determine if there is a significant nexus to a traditional navigable water, as defined below:

1. Non-navigable tributaries that are not relatively permanent;
2. Wetlands adjacent to non-navigable tributaries that are not relatively permanent;
3. Wetlands adjacent to but do not directly abut a relatively permanent non-navigable tributary.

The EPA and the Corps generally do not assert jurisdiction over the following features:

5. Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow);
6. Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The EPA and the Corps have defined the significant nexus standard as follows:

7. A significant nexus analysis assesses the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters;
8. Significant nexus analysis includes consideration of hydrologic and ecologic factors including:
 - a. volume, duration, and frequency of flow, including consideration of certain physical characteristics of the tributary,
 - b. proximity to a traditional navigable water,
 - c. size of the watershed,
 - d. average annual rainfall,
 - e. average annual winter snow pack,
 - f. potential of tributaries to carry pollutants and flood waters to traditional navigable waters,
 - g. provision of aquatic habitat that supports a traditional navigable water,
 - h. potential of wetlands to trap and filter pollutants or store flood waters, and
 - i. maintenance of water quality in traditional navigable waters.

The EPA and the Corps issued revised guidance on December 2, 2008, providing essentially the same direction as set forth above. The revised guidance also clarifies certain concepts, including the determination of an adjacent wetland.

State Policies and Regulations

State regulation of activities in waters and wetlands resides primarily with CDFG and the State Water Resources Control Board (SWRCB). In addition, the California Coastal Commission has review authority for wetland permits within its planning jurisdiction. CDFG provides comment on Corps permit actions under the Fish and Wildlife Coordination Act. CDFG is also authorized under the California Fish and Game Code, Sections 1600-1616, to enter into a Streambed Alteration Agreement with applicants and to develop mitigation measures when a proposed project would obstruct the flow or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams. The SWRCB, acting through the nine Regional Water Quality Control Boards, must certify that a Corps permit action meets state water quality objectives (Section 401, Clean Water Act).

Local

Scotts Valley General Plan

The sections of the Scotts Valley General Plan that relate to biological resources are the Open Space and Land Use chapters. The goal of the open space chapter of the General Plan is “To protect and conserve the natural resources of the planning area including plant and animal habitats, mineral resources, water courses and air quality.” This is accomplished by setting forward various policies and actions that are aimed at protecting and conserving open space in Scotts Valley. The policies and actions that apply to the current project and biological resources on the project property are listed below.

- OSP-325* Environmentally sensitive habitat areas and rare or endangered animal species shall be preserved.
- OSA-326* As a part of the environmental review process, the city shall require new development proposed within areas of rare or endangered wildlife habitat to prepare a site-specific survey which identifies the location and type of species present. The development shall be required to mitigate any potential impacts to such species.
- OSA-327* Through the permit process, ensure land uses in or adjacent to environmentally sensitive habitats shall attempt to avoid significant impairment of an environmentally sensitive habitat area’s habitat value with adequate mitigation measures.
- OSA-364* The city shall encourage that as part of new development proposals, areas over 40 percent slope are dedicated as open space scenic easements. The open space designation shall be recorded in the Office of the County Recorder.
- OSA-389* The City shall ensure native plants are used as a part of new development to integrate the man-made environment into the natural backdrop and to screen or soften the visual impact. Amend the Design Review Guidelines to incorporate this planning technique.

OSA-391 The City shall retain the provisions of the hillside development regulations of the zoning ordinance.

The goal of the Land use policies and actions is “To promote a range of land uses to ensure a balanced community.” The policies and actions that apply to the current project and biological resources on the project site are listed below.

- LA-21* Land over 40 percent slope shall be preserved as open space, with no construction of any kind. During the development of the site, the density for the 40 percent slopes transferred for construction in the areas with a slope of less than 25 percent if these areas are otherwise suitable for higher densities.
- LA-23* Tree covered slopes, no matter what the percent of slopes, should be preserved to the maximum extent possible.
- LA-78* During development review, consider habitat migration paths and corridors and provide protection as appropriate.
- LA-79* As part of the environmental review process for new developments, identify native plant communities or rare or endangered species habitats that would be significantly adversely impacted. Where appropriate, designate those areas as open space.

Tree protection regulations, Scotts Valley Municipal Code

According to the Tree Protection Regulations, Section 17.44.080 of the Scotts Valley Municipal Code, protected trees within the City of Scotts Valley’s jurisdiction are defined as:

Any standing or upright tree meeting any one of the following criteria:

- Any tree having a main stem or trunk at least eight inches or greater DBH (diameter at breast height at 4 ½ feet from the ground), located in a hillside residential zone where the slope within twenty feet of where the tree is located exceeds twenty percent;
- Any single-trunk oak tree with a main stem or trunk at least eight inches DBH (approximately 25 inches in circumference), or any multi-trunk oak tree with an individual trunk over four inches DBH (approximately 12 inches in circumference);
- Any street tree (defined as any tree within five feet of a public or private street or right of way), regardless of size;
- Any single-trunk tree with a thirteen-inch or greater DBH (approximately 40 inches in circumference), except eucalyptus and acacia trees and fruit trees and bay laurel trees are beneath under the drip-line of an established oak tree;
- Any multi-trunk tree with any trunk greater than or equal to eight inch DBH (approximately 25 inches in circumference);
- Any tree, regardless of size, required as part of a permit approved by the Planning Department, Planning Commission or City Council, or required as a replacement tree for a removed tree.

Heritage trees, defined as trees which have been identified because of unique quality and/or size as the most significant and noteworthy in the city and which have been listed.

The City of Scotts Valley encourages preservation of trees to the greatest extent possible. Proposals for removal of protected trees within the City require that project proponents obtain a Tree Removal Permit¹⁰ (except in case of immediate hazard), which involves submitting an application and an Arborist's Report to verify reasons for removal or to determine alternatives to tree removal. Removal of protected trees other than Heritage trees may be granted administratively. Heritage tree removal must be approved by the Planning Commission. As an alternative to a separate Tree Removal Permit, tree removal may be permitted as part of the authorization by the Planning Commission or City Council of a larger development application pursuant to the City zoning ordinance. The determination as to whether a tree may be removed is based on the condition (health) of the tree; topography, including the effect of tree removal on erosion, soil retention, and runoff; and other nearby trees and "the effect the removal would have upon shade, sunlight, privacy, scenic beauty, wildlife, noise, air quality, wind, health, safety, prosperity, historic values and general welfare of the area and the city as a whole" (Municipal Code Sec. 17.44.080(H)(2)(c)). The City may require replanting of replacement tree(s) or payment to the City's tree replacement fund as a condition of granting a tree removal permit.

Impacts Analysis

Significance Criteria

Based on Appendix G of the CEQA Guidelines, the project would have a significant impact related to Biological Resources if it would:

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

¹⁰ No permit is required to remove Monterey pine trees infected with pitch canker, per Municipal Code Sec. 8.34.060.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impacts and Mitigation Measures

Discussion

Comparison of the Proposed Project and the 2005 SEIR

Like the approved project in the 2005 SEIR, the proposed project would develop primarily the less steep, grassland dominated portion of the property on the west side of La Madrona Drive and north of Silverwood Drive. The area to be developed is very similar in size and location to the approved project discussed in the 2005 SEIR (excepting the fire station site east of La Madrona Drive). The use of the site would be different in the sense that more people would be visiting a retail use per day than would be using an office complex. This leads to an increase in car and foot traffic at the site. However, the overall coverage of the proposed retail project would be approximately the same as that of the approved office project, and no changes have taken place on the property since the previous SEIR; therefore, the impacts to biological resources resulting from the construction and everyday use of retail use would be similar to the impacts that would have resulted from the construction and use of the office complex described in the 2005 SEIR. Several status listings of special-status plants and wildlife have changed since the previous SEIR, and these changes are discussed below.

Changes in Circumstances and Information since the 2005 SEIR

As reported above and in Chapter 1, *Introduction*, the change in circumstances and conditions since preparation of the 2005 SEIR include: the addition of several plant species to the CNPS special-status list, state and federal status listing changes of wildlife species, an additional rare plant survey, an updated wetland delineation (**Appendix D-1**), and an updated tree survey (**Appendix D-5**). The plant and wildlife species that have undergone new listing or listing changes since the 2005 SEIR, and have the potential to occur at the project site, are discussed in Table 4.D-1.

Summary of 2005 SEIR Impacts

The 2005 SEIR concluded that development of the office building would have a less-than-significant impact on biological resources, provided that four mitigation measures were implemented. The four mitigation measures were created in response to four identified impacts:

- BIO-1 – Impacts to freshwater seep wetlands.
- BIO-2 – Impacts to nesting birds.
- BIO-3 – Impacts to foraging raptor habitat (Cooper’s hawk).
- BIO-4 – Impacts to protected trees.

These same impacts would occur with the proposed project, but the discussion and mitigation measures have been updated and revised as part of this SEIR. This SEIR also addresses an additional impact to special-status species that was not discussed in the 2005 final EIR. This impact is:

BIO-5 – Impacts to Special-status bat species.

Potential Impacts to Special-Status Plants as a Result of Nitrogen Deposition

During public scoping of environmental issues arising from the proposed project, a question was raised concerning the effects of atmospheric nitrogen (presumably from increased vehicle emissions attributed to the proposed project) on biological resources. This issue was analyzed as part of a proposed development in Santa Clara County, specifically in the context of demonstrated effects on endangered species habitats associated with nutrient-poor serpentine soils that resulted from a study published in the journal *Conservation Biology* (Weiss, 1999).

The applicability of the study in Santa Clara County to the proposed project is found in the similarity of an increase in vehicle traffic, which would result in locally higher levels of nitrogen oxides in the air, compared to existing conditions. These nitrogen oxides are most likely deposited everywhere indiscriminately depending on air flow, but also potentially deposited on nutrient-poor habitats, changing the nutrient cycling dynamics and the plant species composition. Sensitive plant species or habitats may then be displaced by exotic invasive species in part by the changes in the nutrient environment. Exotic invasive plant species are better adapted to high nitrogen environments than native, special-status plant species adapted to serpentine or other nutrient deficient substrates.

Several special-status plants and plant communities in the Scotts Valley area are protected by state and federal regulations discussed above. Of these protected species and communities, the reported occurrences nearest to the proposed project site are discussed below (according to the CNDDDB database, 2008).

The two most prevalent protected plant communities are maritime chaparral and maritime coast range ponderosa pine forest. These communities are found 0.5 miles to the southwest and 1.2 miles to the northwest of the project site. The two special-status plant species that have occurrence records nearest to the project site are: Bonny Doon manzanita (*Arctostaphylos silvicola*), and deceiving sedge (*Carex saliniformis*). The Bonny Doon Manzanita population is extant and is located 0.9 miles west of Scotts Valley in Camp Evers, and the deceiving sedge population is reported as extirpated. There is also an extant population of Choris' popcorn flower (*Plagiobothrys chorisianus* var. *chorisianus*) 0.6 miles directly north of the project site, and an extant population of Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*) 0.9 miles to the northwest of the project site along Graham Hill Road. There are no reported special-status plant populations within one mile of the project site to the east or south.

There are no reported serpentine communities in the vicinity of the project site, and the reported sensitive communities that do exist near the project site are not known to grow on nitrogen deficient soils, nor are they grassland communities. Therefore, the findings of the Santa Clara County serpentine study are not directly applicable to the proposed project or its effects on

sensitive biological resources in the general vicinity. Furthermore, given the context of the project site, in which SR 17, which carries more than 60,000 daily vehicles, traffic resulting from the development of the proposed project is not expected to incrementally raise nitrogen in air pollution (and result nitrogen deposition) to a level substantially higher than that which exists currently in the vicinity of the project site, such that changes in vegetation or habitat would be anticipated. This issue is not discussed further in the SEIR.

Project Impacts

Impact BIO-1: The proposed project would remove (0.96 acres) of freshwater seep wetland habitat. (Significant)

Freshwater seeps exist on the project site within the grassland area on the lower slopes of the steep hill. Approximately 0.96 acres of freshwater seeps would be eliminated by the grading and construction of the proposed project. These wetlands provide habitat for many wetland plants not commonly found in grasslands, in addition to providing nesting and foraging habitat for common wildlife species. Freshwater seeps are waters of the State, and impacts to seeps require Waste Discharge Requirements (WDRs) or a waiver issued by the RWQCB under the Porter-Cologne Water Quality Control Act.

A wetland delineation was conducted by ESA at the site on June 2, 2008. The final report which discusses all findings and contains completed data sheets is included as **Appendix D-1**. Since it is very likely that the isolated, seasonal wetland features on the site are not under the jurisdiction of the U.S. Army Corps of Engineers and would therefore not be regulated according to the requirements of Section 404 of the Clean Water Act, the document has not been submitted to the Corps.

Mitigation Measure BIO-1a: The project sponsor shall submit a complete, accurate, and current wetland delineation report to the RWQCB for consultation and issuance of WDRs, or a waiver, which must be obtained prior to any ground-disturbing or construction activities that would affect the freshwater seep wetlands identified in the wetland delineation.

Mitigation Measure BIO-1b: To the extent feasible, the project sponsor would undertake final project design that would avoid and minimize effects to freshwater seeps. Areas that are avoided would be protected from construction activities through implementation of Best Management Practices (BMPs), as described in **Mitigation Measure BIO-1d** below.

Mitigation Measure BIO-1c: To compensate for the wetlands that would be permanently eliminated by the development of the proposed project, the project sponsor shall undertake one of the following, in agreement with the RWQCB and all provisions in the WDRs.

- Acquisition of equivalent wetlands at a nearby site at a rate of 2:1.
- Purchase of mitigation credits at a mitigation bank such as the Pajaro River mitigation bank.
- An alternative to be agreed upon with the RWQCB.

Onsite wetland creation (as proposed in the 2005 SEIR) is considered unsuitable as mitigation for the existing wetlands primarily because there are no appropriate locations for creating wetlands. Furthermore the creation of small wetlands adjacent to the new development is not considered functionally equivalent to the wetland that exist onsite prior to development. Therefore, the foregoing is considered a more suitable mitigation measure for the loss of on-site wetlands.

Mitigation Measure BIO-1d: During construction, the project sponsor and construction contractor(s) shall implement Standard Best Management Practices (BMPs) to Maintain Water Quality and Control Erosion and Sedimentation to protect wetlands and drainages, as required by compliance with the General NPDES Permit for Construction Activities and established by **Mitigation Measure HYD-1**. BMPs would include, but would not be limited to:

- Installing silt fencing between jurisdictional waters and project related activities,
- Locating fueling stations away from potentially jurisdictional features, and
- Isolating construction work areas from any identified jurisdictional features.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: New Impact, but Less than Significant with Mitigation

Impact BIO-2: Removal of trees and other vegetation could result in the loss of nesting or roosting habitat for special-status raptors and other bird species that are protected by California Fish and Game Code 3503 and the Migratory Bird Treaty Act. (Significant)

Bird nesting is expected in large trees, shrubs, and in annual grasslands on or near the project site. Nesting raptors that could be expected include Cooper's hawk, sharp-shinned hawk, red-tailed hawk, red shouldered hawk, white-tailed kite, and American kestrel. Numerous other resident and migratory birds are also expected to nest in the project area, such as: yellow warbler, purple martin, and Vaux's swift. If active nest sites occur in or adjacent to the project area, noise and visual disturbance associated with construction activities occurring during the nesting season may lead to nest abandonment and/or nest failure. The removal of large trees has potential to destroy active nest sites.

In addition to CEQA impacts, any removal or destruction of active nests and any killing of migratory birds would violate the federal Migratory Bird Treat Act and/or the California Fish and Game Code, Sections 3500-3516. (As noted, raptors protected by Fish and Game Code Section 3503.5 are considered special-status species for the purposes of this EIR, and are therefore listed in Table 4.D-1.)

Mitigation Measure BIO-2a: To the extent feasible, the project sponsor and the City shall ensure that tree removal and grading activities avoid the active nesting and breeding season (from March 1 through August 15) to avoid impacts to nesting raptors and other special-

status birds (identified in Table 4.D-1). If seasonal avoidance is not feasible, Mitigation Measure BIO-2.2 shall be implemented to minimize impacts to special-status nesting birds.

Mitigation Measure BIO-2b: Prior to any potential nest-disturbing activities during the period from March 1 through August 15, the project sponsor shall retain a qualified biologist to conduct a pre-construction survey for special-status nesting birds. The survey shall be conducted no more than one week prior to the start of work activities and would cover all affected undisturbed areas including a 500-foot buffer area around the active project area, staging areas, and access road improvement areas where substantial ground disturbance or vegetation clearing is required.

- If pre-construction surveys indicate that no nests of special-status birds are present or that nests are inactive or potential habitat is unoccupied, no further mitigation is required.
- Additional pre-construction surveys shall be conducted for each new phase of project implementation that occurs during the nesting season, no more than two weeks prior to construction (e.g., prior to tree removal, and again prior to major grading).
- If any active nests are found, an appropriate nest buffer area shall be established during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zones and types of construction activities restricted within them will be determined through consultation with the CDFG, taking into account factors such as the following:
 - Noise and human disturbance levels at the project site and the nesting site at the time of the survey and the noise and disturbance expected during the construction activity;
 - Distance and amount of vegetation or other screening between the project site and the nest; and
 - Sensitivity of individual nesting species and behaviors of the nesting birds.

The following guidelines for protection zones shall be used: for special-status passerine birds, a 50- to 100-foot protection zone shall be established around active nests; for raptors, a 300-foot protection zone and for golden eagles a 500-foot protection zone shall be established around active nests. These protection zones may be modified on a site-specific basis as determined by the qualified biologist or in coordination with CDFG.

- Construction activities commencing during the non-breeding season and continuing into the breeding season do not require surveys (as it is assumed that any breeding birds taking up nests would be acclimated to project-related activities already under way). Nests initiated during construction activities would be presumed to be unaffected by construction, and no buffer zone around such nests would be necessary. However, if trees and shrubs are to be removed during the breeding season, they will be surveyed for nests prior to their removal, as described above.
- The noise control procedures for maximum noise, equipment, and operations identified in Section 4.G, *Noise*, of this EIR shall be implemented.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: New Impact, but Less than Significant with Mitigation

Impact BIO-3: Removal of native vegetation including woodlands, conifer forest, and open grasslands would reduce the available forage habitat for raptors and other birds. (Less than Significant)

Many raptors, including white-tailed kites, red-shouldered hawks, and red tailed hawks forage in open grassland throughout Santa Cruz County and the central coast region. Red tailed hawks were observed at the site by ESA during a site visit on June 2, 2008, and many other species are expected to forage in the grassland as well. The development of the proposed project would affect approximately seven acres of land dominated by annual and perennial grasses, resulting in a permanent loss of forage habitat. However, since the Scotts Valley area consists of a complex mosaic of habitats, including grasslands, which occur just over the hill from the project site, as well as south of Silverwood Drive, the impact to grassland forage habitat of birds is considered less than significant.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Impact BIO-4: Implementation of the proposed project has the potential to result in adverse impacts to native oak or other native trees as defined by the City of Scotts Valley Tree Protection Regulations (Chapter 17.44.080). (Significant)

Implementation of the proposed project may result in the removal or impacts within the drip-line of six silver wattles, six coast live oaks, and 13 coast redwoods on the project site. Additionally, construction activities may remove or disturb seven native trees located on the western portion of the property, adjacent to the project area.

Proposed project activities may occur within the drip-line of native oak trees or other native trees, or may result in the direct removal of native oak trees or other native trees. Work within the drip-line of trees may cause permanent damage to the root system and the subsequent loss of the tree. Loss of native oaks or other native trees would be a significant impact. Potential impacts to protected trees can be reduced to a less-than-significant level through implementation of mitigation measures that avoid protected trees and ensure protection for retained trees. In addition, the applicant would be required to obtain the appropriate tree removal permits from the City of Scotts Valley.

A permit is required if the project would remove any protected tree described under Section 17.44.080 of the Scotts Valley General Plan Tree Protection Regulations. The developer shall replace the removed protected trees at a ratio of two to one, where at least half of the

replanted trees are non-fruit bearing. Replacement trees must be planted within thirty days of tree removal. All trees planted shall be purchased from a locally adapted genetic stock obtained within 50 miles and 1,000 feet in elevation of the project site. A Maintenance and Monitoring Plan shall be developed to provide cages or support stakes for each sapling, identify a weed control schedule, and outline a watering regime for the plantings. If the site does not have adequate room for replanting trees, the developer shall fund the Scotts Valley Tree Fund as outlined in the City's tree ordinance.

Mitigation Measure BIO-4: *Provide Protection for Sensitive Tree Resources Adjacent to Construction Activities.* Sensitive tree resources adjacent to construction activities may require protection. Where feasible, buffer zones shall include a minimum one-foot-wide buffer zone outside the drip-line for oaks or native trees. The locations of these resources shall be clearly identified on the construction drawings and marked in the field by a qualified arborist or other appropriate professional. Fencing or other barriers shall remain in place until all construction and restoration work that involves heavy equipment is complete. Construction vehicles, equipment, or materials shall not be parked or stored within the fenced area. No dumping of oils or chemicals shall be permitted within the drip-line of any retained tree. No signs, ropes, cables, or other items shall be attached to the protected trees. Grading, filling, trenching, paving, irrigation, and landscaping within the drip-lines of oak trees shall be prohibited unless specifically authorized by the City and a certified arborist. Hand-digging shall be done in the vicinity of major trees to prevent root cutting and mangling by heavy equipment. Major roots three inches or greater encountered within the tree's drip-line during excavation shall not be cut and any exposed roots shall be kept moist and covered with earth as soon as possible. Severed roots one to two inches in diameter shall be cut cleanly, trimmed, and covered as soon as possible. Support roots inside the drip-line shall be protected.

In addition, the project sponsor shall conduct annual monitoring for three years following completion of construction to ensure the continued survival of retained native trees and newly planted trees. The project sponsor or designated professional shall contact the City Arborist (or other applicable City official) to discuss success criteria and required length of monitoring prior to conducting the first annual survey.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: New Impact, but Less than Significant with Mitigation

Impact BIO-5: Construction of the proposed project has the potential to affect roosting or breeding special-status bats in and near the project site. (Significant)

Large diameter oak and conifer trees on the project site, and uninhabited structures in the vicinity of the site provide potential roosting habitat for common and special-status bats. The larger coast redwood trees, Douglas fir trees, and coast live oak trees provide suitable nesting and roosting sites for long-eared myotis, fringed myotis, and long-legged myotis, and the open grassland areas provide forage habitat for all of these including Townsend's pacific big eared bat. Focused bat surveys have not been conducted on the project site. Potential direct impacts to special-status bats

include removal of habitat and active roost sites during site clearing and grading. Indirect impacts include increased noise and human presence during construction, with the possibility of nest or roost abandonment.

Mitigation Measure BIO-5: The project sponsor shall implement protection measures to minimize impacts to special-status bats during construction. Concurrent with breeding bird surveys (Mitigation Measure BIO-2.2) a qualified biologist shall conduct preconstruction surveys for special-status bats within suitable open structures and large trees (e.g., greater than 24 inch diameter at breast height) on the site. If any bat species listed above in Table 4.D-1 are identified onsite, the biologist shall evaluate whether breeding adults or juveniles are present. If present, a suitably sized buffer (e.g., 100 to 150 feet) shall be placed around the roost if it appears that grading, tree removal or other project activities may cause abandonment. If it appears that demolition activities may cause nest abandonment, demolition activities must cease until juvenile bats are self-sufficient and would not be directly impacted by project activities.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: New Impact, but Less than Significant with Mitigation

Cumulative Impacts

Impact BIO-6: The proposed project, when combined with development in Scotts Valley and in the surrounding area, would contribute to a reduction of open space and, consequently, habitat for native plants and wildlife, including special-status species. (Less than Significant)

Implementation of the project, along with other past, present and reasonably foreseeable future projects in the vicinity, would combine to reduce open space and available habitat for both common and special-status wildlife and plants. However, open space currently comprises a substantial portion of the geographic context for cumulative impacts analysis in this section, which includes both Scotts Valley and surrounding unincorporated areas of Santa Cruz County, both of which contain large expanses of undeveloped and sparsely developed land—including the forested hillside directly upslope from the proposed project. Moreover, as described above, the quality of habitat at the project site is generally not high, and the site provides relatively limited habitat value. Additionally, there are no anticipated projects in the site vicinity that would remove substantial areas of habitat. Therefore, growth in Scotts Valley and the surrounding area would not result in a substantial reduction in open space or wildlife habitat and this impact is considered to be less than significant.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

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E. Geology, Soils, and Seismicity

This section discusses the geologic and seismic conditions in the project vicinity and evaluates the potential for the proposed project to result in significant impacts related to exposing people or structures to unfavorable geologic hazards, soils, and/or seismic conditions. Descriptions of geology, soils and seismic hazards rely primarily upon information gathered from the United States Geologic Survey (USGS), the California Geologic Survey (CGS), the Natural Resource Conservation Service (NRCS), the Scotts Valley General Plan (1994), and the previous environmental impact report prepared for the project site for a different project. Following a description of the regulatory framework, project elements are evaluated for their potential to create or be affected by significant impacts, and mitigation measures are identified where applicable.

Setting

Regional Geology

Scotts Valley lies within the geologically complex region of California referred to as the Coast Ranges geomorphic province.¹ The Coast Ranges province lies between the Pacific Ocean and the Great Valley (Sacramento and San Joaquin valleys) provinces and stretches from the Oregon border to the Santa Ynez Mountains near Santa Barbara. Much of the Coast Range province is composed of marine sedimentary deposits and volcanic rocks that form northwest trending mountain ridges and valleys, running subparallel to the San Andreas Fault Zone. The relatively thick marine sediments dip east beneath the alluvium of the Great Valley. The Coast Ranges can be further divided into the northern and southern ranges which are separated by the San Francisco Bay. The San Francisco Bay lies within a broad depression created from an east-west expansion between the San Andreas and the Hayward fault systems. West of the San Andreas Fault lies the Salinian Block, a granitic core that extends from the southern end of the province to north of the Farallon Islands and includes the Santa Cruz Mountains.

Site Geology

The proposed project site is located on the western side of the Santa Cruz Mountains, one of the northwest trending ridges typical of the Coast Ranges. The Santa Cruz Mountains include what is known as the Scotts Valley Syncline, which is a folded strata of rock layers. The project site is located at the southwest end of the syncline axis. In general, this area is underlain by massive sedimentary deposits with some areas of intrusive igneous and metamorphic rocks.² Based on a draft geotechnical investigation prepared for the proposed project (Kleinfelder, 2008), the site of the proposed development is underlain by five geologic units, including three bedrock units and

¹ A geomorphic province is an area that possesses similar bedrock, structure, history, and age. California has 11 geomorphic provinces.

² Sedimentary rock is formed by deposition of sediment over time and may include fragments of rocks, minerals, animal or plant material. Igneous rock is formed by the solidification of molten rock. Metamorphic rock has been altered by heat or pressure beneath the earth's crust, causing formation of new minerals and structures in the rock.

two soil units. The entire site is underlain at various depths, by quartz diorite, a very hard igneous rock that is closely related to granite. Above the quartz diorite bedrock is the sedimentary unit known as the Santa Margarita Sandstone, which lies beneath the eastern two-thirds of the site, including virtually the entire development footprint. On the western edge of the site, generally beyond the proposed building footprint, the Santa Margarita Sandstone is overlain by Santa Cruz Mudstone. Colluvium and slopewash lie atop the eastern and western halves of the site, respectively.³ These soils are approximately 2 to 4 feet deep on the eastern portion of the development site and up to about 13 feet deep on the western portion.

Both Santa Margarita Sandstone and Santa Cruz Mudstone are sedimentary rock that are fractured and weak. The draft geotechnical investigation, in fact, describes the Santa Margarita Sandstone as “soil,” rather than “rock,” identifying it as “a dense to very dense poorly graded sand with variable amounts of clay and gravel” (Kleinfelder, 2008). According to the report, this sand is permeable and acts as a groundwater aquifer in the Scotts Valley area. On the project site, the groundwater is considered to be “perched” (i.e., not connected with a larger, deeper aquifer) because of the underlying level of relatively impermeable quartz diorite bedrock (Kleinfelder, 2008).

The quartz diorite bedrock at the project site is relatively shallow and generally occurs less than 20 feet below ground surface, except at the base of the steeper part of the site, where the soil is up to about 40 feet deep. Twenty-nine geotechnical exploratory borings were drilled at the site in 2008 to confirm previous reported conditions reported in a geotechnical investigation for the previously approved office project on the site. Bedrock was encountered in all 29 of the 2008 borings at elevations that ranged from 595 to 601 feet above mean sea level (approximately 3.5 to 35 feet below existing grade), with the exception of one of the borings located outside the proposed building area. In this location, bedrock was encountered at an elevation of 621 feet above mean sea level.

Topography

The project site is located on the northwest corner of La Madrona Drive and Silverwood Drive in Scotts Valley, California. In general, the project boundary slopes toward the east with elevations that range from 595 feet above mean sea level along La Madrona Drive to approximately 660 feet above mean sea level at the westernmost area proposed for development. The crest of the ridge on the project site, west of the proposed development area, has an elevation of about 790 feet. The project site slope inclines increase towards the west with gentler slopes closer to the intersection of La Madrona Drive and Silverwood Drive. In the area of the proposed building footprint, the slopes average about 12 percent.⁴ Closer to the hill above the project site on the west, the slopes

³ Colluvium generally refers to loose, heterogeneous and incoherent mass of soil materials or rock fragments deposited by rain wash or sheet (water) flow, or down-slope soil “creep.”; slopewash includes colluvium mixed with residue of debris flows (larger volumes of material washing down the slope).

⁴ Slopes are commonly expressed in percent, which is the change in elevation divided by the horizontal distance over which the slope occurs, multiplied by 100. A slope of 100 percent has an angle of 45 degrees above the horizontal.

range between 12 and 20 percent and then steepen beyond the project site to approximately 45 percent (Kleinfelder, 2008).⁵

Soils

The characterization of site soils is based on a review of County wide mapping by U.S. Department of Agriculture, Natural Resource Conservation Service (NRCS), formerly known as the Soil Conservation Service. Based on the generalized NRCS mapping, soils present within the project region include the following types:

- Pfeiffer gravelly loam, on 15 to 30 percent slopes;
- Ben-Lomond-Felton complex loam, on 50 to 75 percent slopes; and
- Elkhorn sandy loam, on 15 to 30 percent slopes.

The majority, if not all, of the project site, consists of the Pfeiffer gravelly loam. The Ben-Lomond-Felton complex and Elkhorn sandy loam appear to be located just beyond the project boundary to the west on the steeper regions of the hillside. The Pfeiffer gravelly loam soil is commonly found on hills and terraces and derived from weathered sandstone or granite. Typically shallow (40 to 60 inches before encountering bedrock), these soils are considered well drained due to their coarse grained composition.

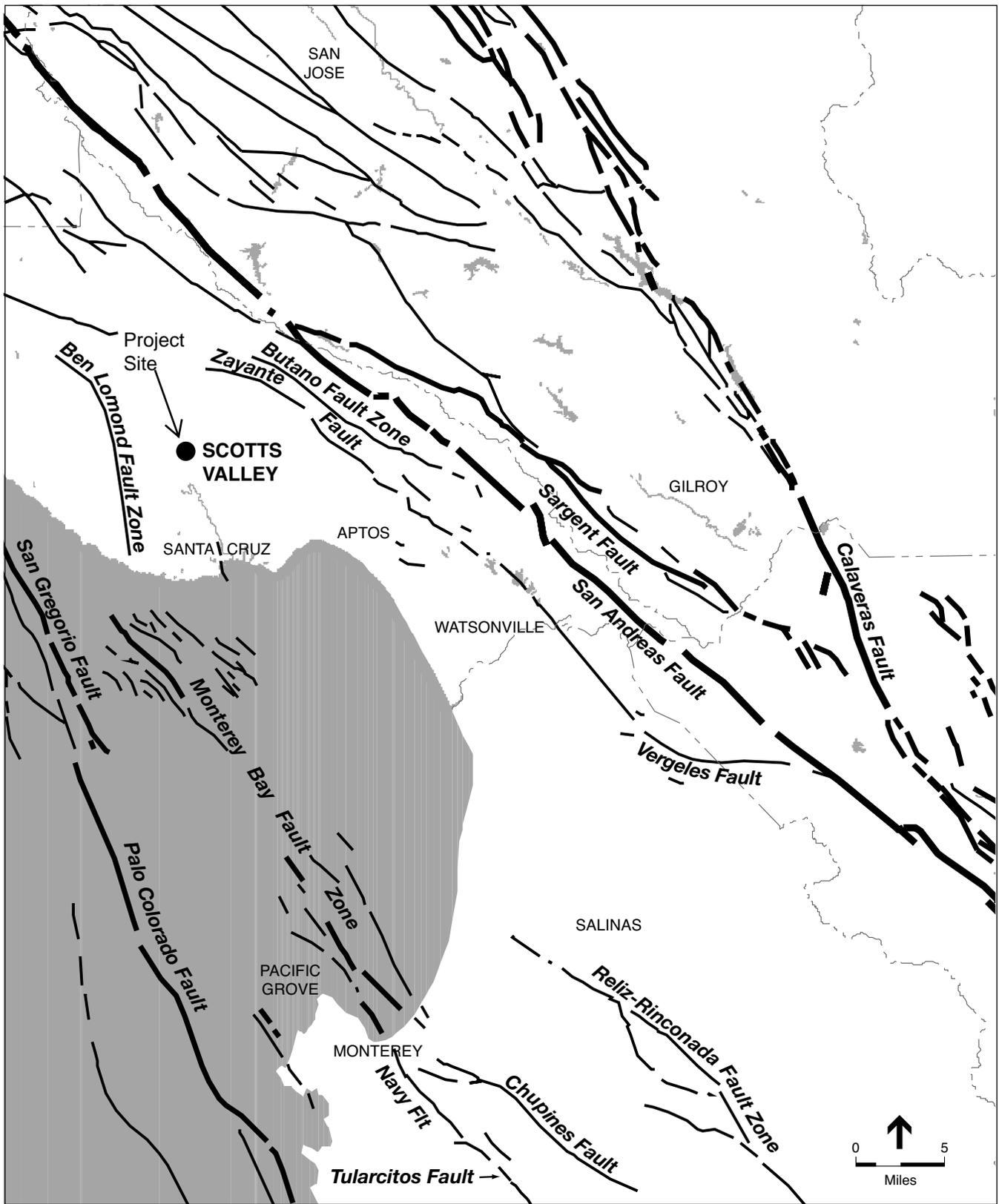
Seismicity

Many areas of California, particularly in areas that are in relative close proximity to the San Andreas fault zone, are considered a region of high seismic activity. Areas such as the Santa Cruz area and regions of Southern California have a number of active faults in addition to the San Andreas that are capable of significant seismic activity. As illustrated in **Figure 4.E-1**, the project site is located relatively close to the San Andreas fault zone as well as other active faults.⁶ The U.S. Geological Survey (USGS) Working Group on California Earthquake Probabilities has evaluated the probability of one or more earthquakes of Richter magnitude 6.7 or higher occurring in the greater San Francisco Bay Area—a region that includes the Monterey Bay Area and Scotts Valley—within the next 30 years. The result of the evaluation indicated a 63 percent likelihood that such an earthquake event will occur in the greater Bay Area between 2003 and 2032 (USGS, 2008).

Ground motion during an earthquake is commonly expressed with the motion parameters of acceleration, velocity, and the duration of the shaking. A common measure of ground motion is the peak ground acceleration (PGA). The PGA for a given component of motion is the largest value of horizontal acceleration obtained from a seismograph. PGA is expressed as the percentage of the acceleration due to gravity (g), which is approximately 980 centimeters per second squared.

⁵ The geological studies prepared for the project site are available for review at the City of Scotts Valley Community Development Department.

⁶ An “active” fault is defined by the State of California as a fault that has had surface displacement within Holocene time (approximately the last 10,000 years). (Hart, 1997).



SOURCE: Jennings, 1994

Gateway South Retail Store . 207755

Figure 4.E-1
Regional Fault Map

Magnitude is a measure of the energy released during an earthquake. Intensity is a measure of the ground shaking effects at a particular location. The estimated magnitudes, described as moment magnitudes (M_w), represent characteristic earthquakes on particular faults (**Table 4.E-1**).⁷

Ground movement at a given location during an earthquake will vary depending on the magnitude of the earthquake, distance from the site to the earthquake epicenter, focus of earthquake energy, and type of geologic material upon which the site rests. The composition of underlying soils, even for sites relatively distant from an earthquake epicenter, can directly affect the ground shaking at a particular location. For instance, ground shaking on a site with soft soil (i.e. Bay mud or artificial fill) can intensify ground shaking (result in higher PGAs) while bedrock beneath a site would attenuate seismic waves.

The Modified Mercalli (MM) intensity scale (**Table 4.E-2**) is commonly used to measure earthquake effects due to ground shaking. It is a useful scale because it describes ground motion in terms of effects observed by people during past earthquakes. The MM values for intensity range from I (earthquake not felt) to XII (damage nearly total). Intensities ranging from IV to X could cause moderate to significant structural damage.⁸

Regional Faults

The project site is located within the greater San Andreas Fault System, which includes the main trace of the San Andreas fault and several other active faults throughout the region.⁹ All these faults have experienced movement within the last 150 years and all these active faults are capable of producing ground shaking. The closest active faults to the project site are the San Andreas and the San Gregorio faults. However, other active faults including the Hayward and Calaveras Fault are also considered to be a likely source of potentially damaging ground shaking in the region.

In addition to these active faults there are several potentially active faults in the area of note. The Zayante fault zone, located approximately four miles north of the site, the Butano fault zone, located approximately five miles north of the project site, and the Ben Lomond fault zone located approximately three miles southwest of the project site, are all associated with the San Andreas fault system. The Zayante (Zayante-Vergeles) and Butano faults are considered potentially active faults that are capable of producing earthquake magnitudes of 7.4 and 6.4, respectively (Scotts Valley, 1992). The Ben Lomond fault has not shown evidence of any displacement in the last 1.6 million years and is therefore considered inactive.

⁷ Moment magnitude is related to the physical size of a fault rupture and movement across a fault. The Richter magnitude scale reflects the maximum amplitude of a particular type of seismic wave. Moment magnitude provides a physically meaningful measure of the size of a faulting event (CDMG, 1997). The concept of “characteristic” earthquake means that we can anticipate, with reasonable certainty, the actual earthquake that can occur on a fault.

⁸ The damage level represents the estimated overall level of damage that will occur for various MM intensity levels. Some buildings will experience substantially more damage than this overall level, and others will experience substantially less damage. Not all buildings perform identically in an earthquake. The age, material, type, method of construction, size, and shape of a building all affect its performance.

⁹ The primary movement on these faults is right lateral horizontal motion, which is also referred to by geologists as strike-slip. With strike slip motion, the ground on either side of the faults moves in opposite directions.

**TABLE 4.E-1
 ACTIVE FAULTS IN THE PROJECT SITE VICINITY**

Fault	Distance and Direction from Project Site	Recency of Movement	Fault Classification^a	Historical Seismicity^b	Maximum Moment Magnitude Earthquake (Mw)^c
San Andreas	8 miles northeast	Historic (1906; 1989 ruptures) Holocene	Active	M 7.1, 1989 M 8.25, 1906 M 7.0, 1838 Many <M 6	7.9
San Gregorio (includes Seal Cove Segment)	12 miles southwest	Prehistoric (Sometime prior to 1775 but after 1270 A.D.)	Active	n/a	7.3
Calaveras	25 miles east	Historic (1861 rupture) Holocene	Active	M 5.6–M 6.4, 1861 M 4–M 4.5 swarms 1970, 1990	6.8
Monterey Bay	12 miles, southwest	Holocene	Active	n/a	7.1
Hayward, South	23 miles, northeast	Historic (1836; 1868 ruptures) Holocene	Active	M 6.8, 1868 Many <M 4.5	7.1
Zayante-Vergeles	3 miles northeast	Holocene	Potentially Active	n/a	7.4
Butano	5 miles northeast	Pliocene	Potentially Active	n/a	6.4

^a See footnote 6, p. 3.

^b Richter magnitude (M) and year for recent and/or large events. The Richter magnitude scale reflects the maximum amplitude of a particular type of seismic wave.

^c Moment magnitude (Mw) is related to the physical size of a fault rupture and movement across a fault. Moment magnitude provides a physically meaningful measure of the size of a faulting event (CGS, 2002). The Maximum Moment Magnitude Earthquake, derived from the joint CDMG/USGS Probabilistic Seismic Hazard Assessment for the State of California, Peterson, 1996. (USGS OFR 96-705).

n/a = Not available

SOURCES: Hart, 1997; Jennings, 1994; Peterson, 1996.

The epicenter of the 1989 Loma Prieta earthquake was about 8 miles east of the project site, along a portion of the San Andreas fault system. The San Andreas fault itself suffered rupture on the portion of the fault nearest the project site in the 1906 San Francisco earthquake (Kleinfelder, 2008).

Geologic Hazards

Based on the geologic data reviewed during the preparation of this SEIR, the geologic hazards that currently exist at the site include slope instability and the potential for slope failure, seismic stability of slopes, the potential for differential settlement of fill versus bedrock, and the potential for excessive erosion. These geologic hazards are discussed below. Other potentially hazardous geologic conditions, namely liquefaction and expansive soils, were found not to exist at the site or represent a potential hazard to the proposed project. Liquefaction, the transformation of soil from a solid to a liquefied state during which saturated soil temporarily loses strength, is not expected

**TABLE 4.E-2
 MODIFIED MERCALLI INTENSITY SCALE**

Intensity Value	Intensity Description	Average Peak Acceleration
I	Not felt except by a very few persons under especially favorable circumstances.	< 0.0017 g ^a
II	Felt only by a few persons at rest, especially on upper floors on buildings. Delicately suspended objects may swing.	< 0.014 g
III	Felt noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motor cars may rock slightly, vibration similar to a passing truck. Duration estimated.	< 0.014 g
IV	During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.	0.014–0.04 g
V	Felt by nearly everyone, many awakened. Some dishes and windows broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles may be noticed. Pendulum clocks may stop.	0.04–0.09 g
VI	Felt by all, many frightened and run outdoors. Some heavy furniture moved; and fallen plaster or damaged chimneys. Damage slight.	0.09–0.18 g
VII	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motor cars.	0.18–0.34 g
VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motor cars disturbed.	0.34–0.65 g
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	0.65–1.24 g
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (sloped) over banks.	> 1.24 g
XI	Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	> 1.24 g
XII	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	> 1.24 g

^a g (gravity) = 980 centimeters per second squared. 1.0 g of acceleration is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds.

SOURCES: ABAG, 2003, CGS, 2005.

to occur on the site due to very shallow soil depths and generally competent nature of the rock formations underlying the site, and this potential hazard is not discussed further in this analysis. The predominantly sandy nature of the soils and absence of significant clay content reduces the potential for expansive soils to be present, and this potential hazard is not discussed further in this analysis.

Slope Stability

A slope failure is a mass of rock, soil, and debris displaced down a slope under the influence of gravity. Natural and manmade slopes fail by a variety of mechanisms. Discontinuities in bedrock such as joints, shear zones, and fractures can cause rock slides, while toppling involves overturning or rotation of rock layers. Sloughing, characterized as occasional rock falls or shallow, localized slope failures, can occur in weathered rocks. Minor slope failures can also occur locally where groundwater saturates near surface soils.

Such failures are dependent on several factors, such as slope steepness, the strength of surficial soil, and bedrock deposits involved. Slope stability can depend on a number of complex variables. The geology, structure, and amount of groundwater in the slope affect slope failure potential, as do external processes (i.e., climate, topography, slope geometry, and human activity). The factors that contribute to slope movements include those that decrease the resistance in the slope materials and those that increase the stresses on the slope. Cutting into the slope and removing the lower portion (slope toe), can reduce or eliminate the slope support, thereby increasing stress on the slope. The amount/intensity of rainfall, seismic shaking, and human activities such as grading (including mining) can also influence slope stability. The potential slope failure hazard is discussed further in the impact analysis and mitigation section, below.

Soil Erosion

Erosion is a process whereby soil and highly weathered or non-indurated (less hard) rock materials are worn away and transported to another area, most commonly by either wind or water. Rates of erosion can vary depending on the competency of the eroding material and human activity. Soils containing high amounts of silt are typically more easily eroded, while coarse-grained (sand and gravel) soils are generally less susceptible to erosion. High rates of erosion, referred to as accelerated erosion, are often caused by human activity and can eventually damage building foundations and roadways, as well as clog or fill surface drainage facilities (siltation ponds/catchments). Erosion, including accelerated erosion, is most likely to occur on long, moderate or steeply sloped areas with exposed soil, especially where unnatural slopes are created by cut-and-fill activities. Activities that cause soil compaction, such as heavy machinery and the use of unsurfaced roads/trails, also accelerate erosion because runoff is concentrated along preferential paths rather than draining away as sheet flow.

Settlement

Settlement can occur from immediate settlement, consolidation, shrinkage of expansive soil, and liquefaction (discussed below). Immediate settlement occurs when a load from a structure or

placement of new fill material is applied, causing distortion in the underlying materials. This settlement occurs quickly and is typically complete after placement of the final load. Consolidation settlement occurs in saturated clay from the volume change caused by squeezing out water from the pore spaces. Consolidation occurs over a period of time and is followed by secondary compression, which is a continued change in void ratio under the continued application of the load.

Soils tend to settle at different rates and by varying amounts depending on the load weight or changes in properties over an area, which is referred to as differential settlement. The project site is underlain by relatively dense granular soils. During the geotechnical investigation conducted in 2001, the site soils were determined to have a very low potential for surface settlement (City of Scotts Valley, 2004). However, the proposed grading plan calls for the transition of cut soils to fill soils beneath the proposed building site which the more recent geotechnical investigation discusses as representing a high potential for differential settlement, absent appropriate engineering treatment (Kleinfelder, 2008). The potential for differential settlement is discussed further in the impact analysis and mitigation section, below.

Seismic Hazards

The principal seismic hazard that could affect the project site is strong seismic ground shaking. The potential effects of ground shaking are slope failure and damage to structures. A secondary seismic hazard that could be expected is ground failure caused by liquefaction. Surface rupture of a fault is not a concern, as there are no faults at risk of surface rupture that pass through the project site (Hart, 1997).

Ground Shaking

Ground shaking may affect areas hundreds of miles distant from the earthquake's epicenter. Historic earthquakes that have caused strong ground shaking and damage in Northern California include the 1906 San Francisco earthquake, with an estimated moment magnitude of 7.9, and the more recent Loma Prieta earthquake in October 1989, with a moment magnitude of 6.9. As noted, the Loma Prieta earthquake occurred about eight miles east of the site along a strand of the San Andreas fault system, between the Zayante-Vergeles and San Andreas fault.

A major earthquake originating on the San Andres fault could cause moderate ground shaking at the project site. The intensity of the ground shaking at the project should be similar to that experienced by other nearby hilly locations in the general area. The possible effects of ground shaking at the project property include slope instability and damage to structures.

A probabilistic seismic hazard (PSH) analysis predicts the level of hazard from earthquakes that seismologists and geologist believe could occur. This includes both proximal and distant sources. The PSH analysis takes into consideration uncertainties in the size and location of earthquakes and the resulting ground motions that can affect a particular site. The PSH analysis results in a

probability of exceeding a certain ground motion (see Table 4.E-1).¹⁰ The maximum peak ground acceleration at the project property would be 0.111 g. This Peak Ground Acceleration corresponds to moderate (VI) shaking intensities on the MMI scale (see Table 4.E-2).

The amplitude and frequency of earthquake ground motions (waves) partially depends on the material through which it is moving. The earthquake force is transmitted through hard rock in short, rapid vibrations, while it becomes a long, high-amplitude motion when moving through soft ground materials, such as alluvial soil. This is often referred to as material amplification. The long, high amplitude wave motions are those that typically are the most damaging to improvements. The project site is predominantly underlain by rock that is close to the ground surface and for this reason should not experience significant material amplification. The effects of ground shaking can be minimized by implementing appropriate engineering measures. This potential hazard is further discussed in the impact analysis and mitigation section.

Earthquake-Induced Landslides

Earthquake motions can induce significant horizontal and vertical dynamic stresses in slopes that produce dynamic normal and shear stresses along potential failure surfaces within a slope. The susceptibility for native and engineered slopes to fail depends on the gradient and localized geology as well as the amount of rainfall, excavation, or seismic activities. During a slope failure, a mass of rock, soil, and debris is displaced down slope by sliding, flowing, or falling. Steep slopes and down-slope creep of surface materials characterize areas most susceptible to failure. Engineered slopes have a tendency to fail during an earthquake if not properly designed, constructed, or compacted.

Regulatory Framework

California Building Code

The California Building Code (CBC) has been codified in the California Code of Regulations (CCR) as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within its jurisdiction. The CBC is based on the International Building Code. The 2007 CBC is based on the 2006 International Building Code (IBC) published by the International Code Conference. In addition, the CBC contains

¹⁰ These maps depict a 10% probability of being exceeded in 50 years. There is a 90% chance that these ground motions will NOT be exceeded. This probability level allows engineers to design buildings for larger ground motions than seismologists think will occur during a 50-year interval, making buildings safer than if they were only designed for the ground motions that are expected to occur in the 50 years. Seismic shaking maps are prepared using consensus information on historical earthquakes and faults. These levels of ground shaking are used primarily for formulating building codes and for designing buildings (CGS, 2008)

necessary California amendments which are based on the American Society of Civil Engineers (ASCE) Minimum Design Standards 7-05. ASCE 7-05 provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (flood, snow, wind, etc.) for inclusion into building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California. The City of Scotts Valley has adopted the 2006 IBC.

General Plan 1994 Policies

The 1994 General Plan Safety chapter contains the following objective and policies that would apply to the proposed project.

- SO-486* Reduce the risks resulting from seismic and other geologic hazards, by regulating development in areas of high seismic and other geologic hazards.
- SP-487* The City utilizes liquefaction and landslide maps prepared by the County (Figures S-3 and S-4) to assess geotechnical hazards within the Planning Area. These maps shall be updated as new and more accurate information becomes available.
- SP-489* In a geologic hazard area, development shall be approved only after a detailed geotechnical evaluation is completed by a registered geologist, and only if adequate measures are provided to avoid or substantially reduce any identified hazard.

Impacts Analysis

Significance Criteria

According to Appendix G of the State CEQA Guidelines, the project would result in a significant impact related to Geology, Soils, and Seismicity if it would:

- Expose people or structures to geologic hazards, soils, and/or seismic conditions so unfavorable that they could not be overcome by special design using reasonable construction and maintenance practices. Specifically,
- Expose people or structures to substantial risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publications 42 and 117 and Public Resources Code §2690 et. seq.);
 - Strong seismic ground shaking;
 - Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or
 - Landslides;

- Result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways;
- Be located on expansive soil, as defined in Section 1802A.3.2 of the 2007 California Building Code, creating substantial risks to life or property;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse; or
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Methodology

Based on the proposed project plans and its geographical location, the proposed project would not result in impacts related to some of the criteria listed above. Therefore, no impact discussion is provided for these topics for the following reasons:

- *Fault Rupture*. The faults most susceptible to earthquake rupture are active faults, which are faults that have experienced surface displacement within the last 11,000 years. There are no active faults that cross the project area or the immediate vicinity of the project site. Therefore, the potential for fault rupture to affect the proposed project elements is very low.
- *Liquefaction and Lateral Spreading*. The project site is underlain by dense soils and bedrock (Kleinfelder, 2008). Groundwater is found perched at relatively shallow depths (5 to 25 feet below ground surface) in localized areas. However, both geotechnical investigations from 2001 and 2008 concluded that based on the density of the soils the potential for liquefaction at the project site is low. Lateral spreading, a type of ground failure caused by liquefaction would then also have a low potential at the site also due to the presence of dense soils and bedrock.
- *Soil Erosion*. Construction work would be required to incorporate best management practices for erosion control, in accordance with applicable local policies and stormwater pollution prevention plan requirements (see Section 4.F, *Hydrology*). These erosion control measures along with the drainage control improvements that are part of the project design would reduce the potential for short- or long-term structural damage to fills, foundations, and other engineered structures.
- *Expansive Soil*. Expansive soils possess a “shrink-swell” behavior. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may occur over a long period of time, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils. Expansive soils were not identified in the geotechnical investigation performed. Also, based on the presence of coarse grained material in the artificial fill, there is a low potential that expansive soils will be encountered.
- *Collapse*. The project site is underlain by dense soils and bedrock (Kleinfelder, 2008). Soils that are susceptible to collapse are typically found in regions outside of the project area. Collapsible soils are most often encountered in arid climates, where wind and intermittent streams deposit loose low-density materials. When placed under new

loading or the addition of water that reaches deeper than under normal conditions, these soils can collapse causing structural damage. However, these conditions or soils are not found at the project site and therefore there is no potential for collapsible soils and it is not discussed further in this section.

- *Wastewater Disposal.* The project area is located within an urban area where the proposed development would be able to tie into existing wastewater infrastructure. Therefore, the project would not require the use of septic or other alternative disposal wastewater systems, and therefore no impact associated with this hazard would result from the project.

Impacts and Mitigation Measures

Comparison of the Proposed Project and the 2005 SEIR

Like the approved office building project, the proposed project would develop the currently vacant site with a structure that will require grading operations to create the building pad. The 2005 SEIR did not include an analysis for *Geology and Soils* because it was found to have a less than significant impact. Based on the various geologic and seismic hazards present on the project site and the proposed amount of cut-and-fill grading for the currently proposed project, this SEIR has included an analysis for this resource area.

Changes in Circumstances and Information since the 2005 SEIR

In general, the geologic conditions and hazards have not changed since preparation of the 2005 SEIR, although a more recent geotechnical investigation has been prepared for the project site which was based on preliminary plans for the proposed project (Kleinfelder, 2008).

Summary of 2005 SEIR Impacts

The Initial Study prepared for the 2005 SEIR concluded that impacts related to Geology and Soils would be less than significant, provided that the geotechnical recommendations from the 2001 geotechnical investigation were incorporated into project plans. The Initial Study did not identify any mitigation measures but rather referred to the geotechnical recommendations as mitigations which would reduce the potential impact resulting from development proposed to less than significant:

Significance after Implementation of Geotechnical Recommendations and 2005 SEIR: Less than Significant

Proposed Project Impact Analysis

Impact GEO-1: The proposed project would be subject to ground shaking from a seismic event on one of the regional active faults, potentially causing personal injury and significant damage to structures (Less than Significant)

Approach to the 2005 SEIR Analysis of Geology and Soils

As discussed in the Initial Study for the 2005 SEIR, a major earthquake on one of the nearby faults would cause strong to very strong ground shaking at the project site. However, that project would have been designed and constructed in accordance with existing building codes, which are designed to minimize exposure of people or structures to the risks associated with seismic activities.

The potential change that the current project would cause by constructing an alternative building program is measured against existing baseline conditions, as analyzed below.

Comparison of Existing Baseline to the Proposed Project

As described above and also previously identified in the 2005 Initial Study, the proposed project is located in an area that is subject to very strong ground shaking. The Northern San Andreas fault segment, which includes the portion of the San Andreas fault in Santa Cruz County, has a 21 percent chance of producing a magnitude 6.7 or greater earthquake in the next 30 years (USGS, 2008). A major earthquake on this or other active faults or any other regional fault could produce substantial ground shaking at the project site.

A preliminary geotechnical investigation has been completed for the project site. This investigation has provided an analysis of site conditions based on collecting subsurface soil samples and has concluded that the project is feasible from a geotechnical standpoint provided that recommendations made in the report are included into the design (Kleinfelder, 2008).

As part of the City's review process, a site-specific, finalized design level geotechnical investigation would be required for the proposed project. The investigation would include an analysis of seismic parameters in accordance with the 2007 California Building Code ("Title 24") and the Scotts Valley Municipal Code, which require that all designs accommodate ground accelerations expected from known active faults. In addition, the investigation would review improvement and grading plans and update geotechnical design recommendations for the walls, foundations, foundation slabs, fill materials, compaction, and surrounding related improvements (utilities, parking lot and sidewalks). The report would be subject to technical review and approval by the City of Scotts Valley Building Department, and the City would require that any revisions to the proposed project be incorporated into the final design.

Predicting seismic events is not possible, nor is providing mitigation that can entirely eliminate the potential for injury and damage that can occur during a seismic event. However, using accepted geotechnical evaluation techniques, appropriate engineering practices, and seismic design criteria found in the building code, potential injury and damage risk can be diminished to a generally acceptable level, thereby exposing fewer people and less property to the effects of a

major damaging earthquake. Therefore, with incorporation of the recommendations in the final geotechnical report as a condition of project approval, the potential ground shaking hazards would be reduced to a less-than-significant level.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Impact GEO-2: Development at the project site could subject people and property to slope instability hazards, including landslides, debris flows and rockfalls caused by seismic or nonseismic mechanisms. (Significant)

Approach to the 2005 SEIR Analysis of Geology and Soils

As discussed in the Initial Study for the 2005 SEIR, the project site slopes steepen toward the southwest of the proposed building site and evidence of a small landslide above the 40 percent slope line was noted. The Initial Study concluded that because this area would not be developed and the area beneath the toe of the slope would be secured by a system of concrete retaining walls, that there would be a less-than-significant impact from landslides. In addition, project plans called for revegetation of exposed graded and finished slopes which would further minimize the potential for landslides.

The potential change that the current project would cause by constructing an alternative building program is measured against existing baseline conditions, as analyzed below.

Comparison of Existing Baseline to the Proposed Project

The project site includes a prominent hill with relatively steep slopes, composed of bedrock in varying stages of weathering. Bedrock contacts, fractures and shear zones provide areas of weakened rock that can become dislodged and then fall or roll towards the lower areas. As mentioned above in the Setting section, landslides or slope failures can occur slowly over time or as sudden releases of debris. Slope failures occur as a function of slope and type of materials and may be triggered by events such as heavy precipitation, human activities such as excavation, changes in groundwater levels, or seismic activity.

The project site includes a range of slopes from approximately 10 or 12 percent to upwards of 45 percent. In order to create a level building pad, the proposed project would require earthwork and grading activities that would cut into the existing hillside. As part of the geotechnical evaluation of the proposed project, the geotechnical investigation included an analysis of slope stability during static and pseudo-static (seismic) conditions. The end result of a quantifiable slope stability analysis is the calculation of what is known as the Factor of Safety (FOS). In general, the higher the FOS the more stable the slope. Current standards of practice suggest that FOS values should be at least 1.3 during construction and 1.5 during operation for static conditions. For pseudo-static conditions, recommended FOS values should be greater than 1

(Kleinfelder, 2008). Analysis of stability considers soil and bedrock characteristics along with any engineering design such as retaining walls and the estimated maximum potential ground shaking that could be expected at the site. The analysis concluded that static FOS values were calculated at ranging from 1.6 to 1.9 during the operational phase and 1.4 during construction (Kleinfelder, 2008). Pseudo-static FOS values were calculated to range from 1.1 to 1.4 (Kleinfelder, 2008).

Other building code requirements include minimum building setbacks from the base of certain slopes (Kleinfelder, 2008). According to Section 1805.3.2 of the 2007 CBC, the horizontal distance between the footing and top of the adjacent slope should be one-third the height of the slope. The maximum proposed slope height for the project is 26 feet and therefore should have a setback minimum of 8 to 9 feet. Section 1805.3.2 also states that where slopes are steeper than 100 percent, the required setback shall be measured from an imaginary plane 45 degrees to the horizontal. The proposed building foundation would meet both of these criteria with the exception of the northeast corner of the proposed store building (near the intersection of La Madrona Drive and the southern project driveway), where the foundation would be required to be embedded a minimum of approximately 10 feet below the proposed grade in order to meet code requirements (Kleinfelder, 2008).

At the rear (west) of the proposed store building, the project proposes a series of retaining walls that would create a stepped slope where excavation would be required to flatten the building site. The project geotechnical investigation found a low potential for debris flow from the slope that rises above this portion of the project site. Nevertheless, the report found that the western building wall would be located within 8 to 10 feet of the toe of the slope to be created by the retaining walls, which would not meet the minimum setback of 15 feet set forth in Section 1805.3.1 of the CBC. This could subject the building to damage in the event of debris flow from the slope above. The report identified geotechnical engineering mitigations such as deflection wall, reinforced debris fences, and subdrainage improvements, which can also provide additional stability that is in keeping with sound geotechnical practices. Implementation of the following mitigation measure would reduce the potential for slope stability to create safety hazards for the public to a less-than-significant level.

Mitigation Measure GEO-1: The applicant shall include the recommendations made in a finalized site-specific geotechnical investigation in regard to potential debris flow from the western slope as part of the proposed project. These recommendations include oversight of grading operations by a California Certified Engineering Geologist or Registered Professional Geotechnical Engineer, structural analysis and design of retaining walls, and drainage control improvements including subdrainage features behind retaining walls. Like the draft geotechnical report, recommendations in the final report would include those regarding the stability of retaining walls and minimization of hazard due to debris flows from the slope above the proposed project. The final grading plans shall be reviewed and approved of by the City of Scotts Valley Building Department prior to the commencement of project construction. Final inspection of excavated slopes and graded slopes shall be completed by a registered civil or geotechnical engineer or certified engineering geologist with knowledge of the project conditions.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: New Impact, but Less than Significant with Mitigation

Impact GEO-3: With proposed cut and fill operations at the project site, development at the project site would be susceptible to settlement and potentially differential settlement either from static forces or earthquake induced forces causing structural damage or personal injury. (Less than Significant)

Approach to the 2005 SEIR Analysis of Geology and Soils

The Initial Study for the 2005 SEIR discussed the presence of mostly stiff to very stiff clays and some loose sands at the project site. The loose soils identified were also noted to contain saturated zones that are considered weak and compressible. However, the potential for settlement or subsidence would be lessened considerably through grading and re-working of site soils consistent with geotechnical recommendations. These recommendations also included drainage improvements to reduce the presence of saturated soils. With incorporation of these geotechnical recommendations, the 2005 Initial Study concluded that the potential impact related to subsidence or other unstable geologic units would be less than significant.

The potential change that the current project would cause by constructing an alternative building program is measured against existing baseline conditions, as analyzed below.

Comparison of Existing Baseline to the Proposed Project

According to the more recent geotechnical investigation, the underlying materials at the project have been described as consisting of surficial soils and three geologic formations of bedrock including Santa Cruz Mudstone, Santa Margarita Sandstone, and quartz diorite (Kleinfelder, 2008). The surficial soils range from a few feet to more than 10 feet thick (Kleinfelder, 2008). One of the primary geotechnical concerns identified for the site is the potential for differential settlement. The proposed grading would require cut and fill operations that would result in a transition from a cut area (at the western portion of the proposed development) to an area where fills are placed that would be located beneath the building pad (at the eastern portion of the site). If not engineered appropriately, the variance in engineering characteristics between the cut and fill areas could over time result in intolerable amounts of differential settlement causing damage to the building foundation. However, using accepted geotechnical engineering techniques and practices such as placement of engineered fill and appropriately compacting the fill can reduce the potential for differential settlement to levels that are considered tolerable by the building foundation. One of the geotechnical recommendations included in the current report, which would be required to be incorporated into the project specifications by compliance with the recommendations of the final geotechnical report, would be the placement of 3 feet of engineered fill beneath the building pad (Kleinfelder, 2008). Therefore, with incorporation of appropriate engineering practices as a condition of project approval, the potential for settlement or subsidence hazards would be minimized to a less-than-significant level.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Cumulative Impacts

Impact GEO-4: Implementation of the proposed project, combined with past, present, and reasonably foreseeable probable projects, would not result in substantial adverse cumulative impacts to geology, soils, or seismic hazards. (Less than Significant)

The geographic area considered for the cumulative geology, soils, of seismic hazards effects is the greater San Francisco Bay/Monterey Bay region. This region is considered seismically active and future development will expose additional people and structures to potentially adverse effects associated with earthquakes including seismic ground shaking and seismic-related ground failure. However, site-specific geotechnical studies that future development projects would be required to prepare would determine how each development could be designed to minimize exposure of people to these effects. Future development would be constructed to standards that would likely exceed those of older structures within the region. The proposed project, as well as all other projects, would be constructed in accordance with the current version of the California Building Code seismic safety requirements and recommendations contained in each site-specific geotechnical report. Therefore, impacts to area geology and soils resulting from future development of the proposed project, combined with other past, present, or reasonably foreseeable probable projects, would not result in a cumulatively significant impact. The cumulative impact would be less than significant given mandatory compliance with existing state and local building codes and regulations.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

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F. Hydrology and Water Quality

This section describes the existing hydrology and water quality conditions in the project area and applicable federal, state and local regulations. This section also discusses potential project-related impacts to surface water and groundwater resources, including water quality, flooding and stormwater runoff. Mitigation measures to reduce potential impacts are provided where applicable. Copies of the technical investigation reports used for this analysis and cited in this section are available at the City of Scotts Valley Community Department for review.

Setting

Project Setting

Hydrology

The proposed project site is located within the Carbonera Creek Watershed of the Santa Cruz Mountains. Carbonera Creek originates in the Santa Cruz Mountains and generally flows southwest through Scotts Valley before discharging into the San Lorenzo River. The San Lorenzo River ultimately discharges into the Pacific Ocean at Monterey Bay near Santa Cruz. Elevations within the Scotts Valley area range from less than 300 feet along the San Lorenzo River to over 1,800 feet on Ben Lomond Mountain. The climate of the region is considered Mediterranean with warm summers and mild winters. Annual precipitation in the area averages approximately 43 inches, with the bulk of the rainfall occurring between November through March.

The Carbonera Creek Watershed covers approximately 7.4 square miles. There are no well-defined drainages on the project site, though some grassy swales do exist. Runoff at the site flows generally toward La Madrona Drive as overland flow; however, some of the existing surface depressions on the site collect most of the runoff during the early portion of the rainy season. Later in the rainy season the underlying soils can become saturated resulting in the generation of surface runoff offsite (LFR, 2008).

Groundwater

The project area is located within the Scotts Valley Groundwater Basin, which is a J-shaped basin that comprises the alluvial valley that surrounds Highway 17 (DWR, 2006). Carbonera Creek drains the upper northern basin, and an unnamed tributary drains the southern portion. The principal water bearing unit of the basin is the Santa Margarita Sandstone; however, the underlying Lompico Sandstone also yields water (DWR, 2006). The Monterey Shale unit is found between these two units and acts as somewhat of a barrier making the Lompico defined as a semi-confined or confined aquifer. The Santa Margarita Sandstone has thicknesses of up to 350 feet and is considered unconfined, meaning that there is no impermeable layer above it. The alluvial fill above the Santa Margarita formation is found at the valley floor. The sedimentary rocks of the basin are structurally deformed into what is known as the Scotts Valley Syncline which generally means the rock units have been tectonically molded into a U-shape (LFR, 2008). The basin is bounded by the Ben Lomond fault to the west and the Zayante fault to the north.

Regional work done by the Scotts Valley Water District suggests that the project site is located in a potential recharge zone for the Santa Margarita Sandstone aquifer. However, the groundwater at the project site is considered to be perched because of the restrictive granitic bedrock layer of quartz diorite that is beneath the Santa Margarita Sandstone and continuous across the site. The depth to groundwater has been measured at approximately 10.4 feet below ground surface in the spring of 2001 and 2008. Thus, based on the confirmed presence of the granitic layer across the site from site specific data collected from 2001 and 2008 geotechnical investigations, the site only provides recharge to the surficial soils and not the underlying water bearing the Santa Margarita Sandstone unit (LFR, 2008).

Flooding

The Federal Emergency Management Agency (FEMA) is responsible for management of floodplain areas defined as the lowland and relatively flat areas adjoining inland and coastal waters subject to a one percent or greater chance of flooding in any given year (also termed the 100-year floodplain). The project site lies outside the 100-year floodplain areas that are defined around Carbonera Creek and within an area designated as Zone X, which is an area of minimal flooding (FEMA, 2006).

Regulatory Framework

Federal

Clean Water Act

The federal Clean Water Act (CWA) and amendments, under the enforcement authority of the U.S. Environmental Protection Agency (EPA), was enacted to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The CWA granted the U.S. EPA with the authority to implement pollution control programs. The National Pollution Discharge Elimination System (NPDES) permit program, under Section 402(p) of the CWA, regulates sources that discharge pollutants into the waters of the United States. In general, implementation of the NPDES permit program has been delegated to individual states. California has an approved state NPDES program, which is administered by the State Water Resources Control Board (SWRCB). The SWRCB has nine regional water quality control boards (RWQCBs). The Central Coast RWQCB regulates water quality in the project area.

Section 303(d) of the CWA requires that each state identify water bodies or segments of water bodies that are impaired. Impaired water bodies refer to water bodies that do not meet one or more water quality standards established by the state. Once a water body or segment is listed, the state is required to establish a Total Maximum Daily Load (TMDL) for the identified pollutant. The TMDL is the quantity of a pollutant that can be assimilated by a water body without violating water quality standards. A TMDL has been established for San Lorenzo River that specifically includes Carbonera Creek for sediment which was adopted on September 16, 2003 and revised on May 16, 2003 (Resolution No. 2003-0063; RWQCB, 2003).

National Pollutant Discharge Elimination System

The NPDES program under the CWA prohibits discharges into navigable waters except for discharges that are in compliance with specified requirements and authorizations. The NPDES permits include municipal stormwater permits that regulate stormwater runoff from short-term construction activities and in the long term during the life of a project. Stormwater from construction activities is regulated under the statewide General Construction Permit and long term stormwater runoff from projects (e.g., developments) is regulated on the local level (both permits are discussed below in the state and local sections, respectively).

State of California

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act, Division 7 of the California Water Code, provides the basis for water quality regulation within California. The Act allows the SWRCB to adopt statewide water control plans or basin plans. The plans establish water quality objectives for water bodies within the state. The Central Coast RWQCB adopted the *Water Quality Control Plan for the Central Coast Basin (Basin Plan)* on September 8, 1994, with periodic amendments since then. The *Basin Plan* establishes water quality objectives and implementation programs to meet the stated objectives and to protect the beneficial uses of the surface waters in the basin (see *Basin Plan* below). The Act also authorizes the NPDES program under the CWA.

General Construction Permit

Construction activities on one acre or more are subject to the requirements of the NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit). The SWRCB established the General Construction Permit for the purpose of reducing impacts to surface waters that may occur due to construction activities. The project would involve construction over more than one acre of land, and therefore would be subject to the General Construction Permit. The project sponsor would be required to prepare and implement a stormwater pollution prevention plan (SWPPP). The SWPPP is prepared before project construction begins and it includes specifications for best management practices (BMPs) that would be implemented during construction. BMPs are measures undertaken to control degradation of surface water by preventing soil erosion or the discharge of pollutants from the construction area. Additionally, the SWPPP describes measures to prevent or control runoff after construction is complete and identifies procedures for inspecting and maintaining facilities or other project elements. Required elements of a SWPPP include:

1. Site description addressing the elements and characteristics specific to the site;
2. Descriptions of BMPs for erosion and sediment control;
3. BMPs for construction waste handling and disposal;
4. Implementation of approved local plans;
5. Proposed post-construction controls; and
6. Non-stormwater management.

The *California Storm Water Best Management Practice Handbook* (2003) provides a detailed list of BMPs that can be included in the SWPPP to effectively reduce degradation of surface waters to an acceptable level. Examples of typical construction BMPs include scheduling or limiting activities to certain times of the year, installing sediment barriers such as silt fences and fiber rolls, maintaining equipment and vehicles used for construction, tracking controls such as stabilizing entrances to the construction site, and developing and implementing a spill prevention and cleanup plan. Non-stormwater management includes installing specific discharge controls during activities such as paving operations and vehicle and equipment washing and fueling.

Dewatering Permit

Construction activities such as excavation and trenching in areas with shallow groundwater may require dewatering, which would be subject to the SWRCB construction dewatering permit requirements. Dewatering operations are regulated under State requirements for stormwater pollution prevention and control. Discharge of non-stormwater from a trench or excavation that contains sediments or other pollutants to sanitary sewer, storm drain systems, creek bed (even if dry), or receiving waters is prohibited. Discharge of uncontaminated groundwater from dewatering is a conditionally exempted discharge by the RWQCB. However, the removed water could potentially be contaminated with chemicals released from construction equipment or sediments from excavation. Therefore, disposal of dewatering discharge would require permits either from the RWQCB for discharge to surface creeks and groundwater or from local agencies for discharge to storm or sanitary sewers. The SWRCB lists non-stormwater discharge controls specifically for dewatering operations (SWRCB, 2003). The project sponsor would be required to implement these control measures during construction activities at the project site. Discharge of water resulting from dewatering operations would require an NPDES Permit, or a waiver (exemption) from the RWQCB, which would establish discharge limitations for specific chemicals (if they occur in the dewatering flows).

Basin Plan

The Central Coast RWQCB prepared the *Water Quality Control Plan for the Central Coast Basin (Basin Plan)* (1994) that contains descriptions of the legal, technical and programmatic bases of water quality regulation in the region. The *Basin Plan* describes beneficial uses of major surface waters and their tributaries. The RWQCB is responsible for protecting the beneficial uses listed for the water bodies. Carbonera Creek is listed as a tributary to the San Lorenzo River and has been identified as having beneficial uses. Specific beneficial uses designated for Carbonera Creek when water is present include wildlife habitat, fish spawning, and cold freshwater habitat. Wildlife habitat within the stream corridor, particularly waterfowl habitat, is the beneficial use most sensitive to water quality impacts. Pollution from pesticides, fertilizers, metals, and hydrocarbons in urban runoff can directly affect sensitive bird species and their offspring.

On May 16, 2003, the RWQCB amended the Basin Plan to include a TMDL for sediment in San Lorenzo River that includes Carbonera Creek. Resolution No. R3-2002-0063 contains a source analysis, numeric targets, and total maximum loads allowable in order to meet water

quality objectives found within the Basin Plan. In addition, this resolution includes an implementation and monitoring plans necessary to achieve these goals.

City of Scotts Valley Storm Water Management Plan

In accordance with RWQCB NPDES storm water permits for operators of small municipal separate storm sewer systems (MS4s) that discharge to waters of the U.S. On April 30, 2003 the State Water Resources Control Board adopted Order No. 2003-0005 DWQ (NPDES Permit No. CAS000004) Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems. The General Permit requires regulated Small MS4s to develop a storm water management program (SWMP) designed to reduce pollutant discharge to the maximum extent practicable to protect water quality. The City of Scotts Valley submitted a first draft of a SWMP on July 30, 2003 and five subsequent drafts followed. On March 26, 2009, the RWQCB issued Resolution No. R3-2009-0030 approving the city's SWMP with revisions.

City of Scotts Valley General Plan

The City of Scotts Valley General Plan was adopted by the City on April 20, 1994. Citizens and decision makers use the general plan to guide and interpret the city's long range development of land and conservation of resources. Policies contained in the General Plan that relate to the proposed project include the following:

- SO-481* Reduce the risk from flooding by regulating development in flood prone areas.
- SP-482* Proposed development in known flood prone areas shall be approved only if adequate measures are provided to reduce potential flood hazards.
- OSA-343* As part of the environmental review process, the City shall, in cooperation with the water District, require developers to study and mitigate any loss of recharge. Mitigations may take the form of on-site recharge, construction of recharge improvements, contributions to the program cited above, or a combination of any or all of these.
- OSP-345* New development shall minimize the amount of impervious surfaces.
- OSA-346* The Community Development Department will encourage the use of pervious materials, such as turf block, in development projects.
- OSA-353* The City shall continue to require siltation ponds and erosion control measures which mitigate adverse impacts to surface water bodies and groundwater basins during and after construction.

Impacts Analysis

Significance Criteria

Based on Appendix G of the CEQA *Guidelines*, the project would have a significant impact if it would:

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

Impacts in this section are analyzed based upon the significance criteria listed above and by assessing the change in the existing conditions resulting from the project. Based on site conditions and the proposed project characteristics, the following topics were considered to have no impact or are not applicable to the project; therefore, no further discussion of these impacts is provided:

100-Year Flood Zones. As discussed previously, the project site is not located within the 100-year floodplain, therefore the project would not place structures that would impede or redirect flood flows within a 100-year flood hazard area, nor would the project place housing in the 100-year flood zone, as no housing is proposed as part of the project.

Flooding from Failure of a Dam or Levee. The project site does not lie within inundation area of a dam or a levee. The closest dam structure is the Newell Dam on the Loch Lomond Reservoir which is located approximately five miles northwest of the project site and outside of the inundation area. The proposed project would not expose the public or structures to the risk of failure of a dam or levee.

Inundation by Tsunami, Seiche, or Mudflow. The project site is located well inland and at an elevation that is out of the influence of the Pacific Ocean. Seiches form in enclosed bodies of water. The risk from seiche is considered minimal because there are no enclosed water bodies in the immediate vicinity. Mudflows are mostly associated with slope failures but with greater volumes of water resulting from intense rainfall or snow melt, volcanic eruptions, earthquakes and severe wildfires. The potential for landslides that are triggered by rainfall or earthquakes is discussed in Chapter 4.E, *Geology and Soils*. The project site is not located in the area of a snow pack or any volcanoes in addition to the fact that the soil layer beneath the site is relatively shallow and therefore would not be subject to significant mudflows. Therefore the proposed project would not be subject to inundation by tsunami, seiche, or mudflows.

Methodology

The following analysis of potential impacts associated with the proposed project considers the analysis conducted in the 2005 SEIR, changes in project description between the current project and the approved project in 2005, and changes in baseline conditions. Mitigation measures that were adopted as part of the 2005 SEIR have been incorporated as appropriate and modified as necessary.

Impacts and Mitigation Measures

Comparison of the Proposed Project and the 2005 SEIR

Like the approved project, the proposed project would develop the currently vacant lot with a large structure and parking lot that would change the current drainage pattern. The now completely pervious surfaces of the site would be converted into a substantially greater amount of impervious surfaces with the proposed project, similar to the effects of the approved project although the specifics of the layout would vary. The 2005 SEIR referred to the Specific Plan EIR as a more general analysis and provided additional mitigation measures that were more specific to the project site and therefore included additional mitigation measures.

Changes in Circumstances and Information since the 2005 SEIR

The change in circumstances and conditions since preparation of the 2005 SEIR include a better understanding of site conditions through additional technical reports that have been prepared for the project site. A hydrogeological analysis for the site focused on the underlying geological materials and the potential effects of the project on groundwater recharge (LFR, 2008). In addition, a more recent geotechnical investigation was conducted at the site in 2008 providing more details of the site stratigraphy and confirmation of earlier findings (Kleinfelder, 2008).

Summary of 2005 SEIR Impacts

The 2005 SEIR concluded that development of the office building would potentially result in impacts to water quality from erosion during construction; the increase in impervious surfaces would cause increased erosion and flooding concerns downstream of the site; water quality of stormwater runoff would be affected, and groundwater recharge would be potentially reduced through the increase in impervious surfaces. The 2005 SEIR identified Mitigation HYD-1 through HYD-3, listed below, to mitigate the potentially significant impacts resulting from the proposed development to less than significant. These mitigation measures call for some pre-planning and design measures such as a sedimentation and erosion control plan, stormwater control facilities that address quantity and quality of runoff, design measures that maximize infiltration/permeability of site improvements that would reduce the potential impacts to less than significant levels.

2005 SEIR Mitigation HYD-1:

HYD-1.1: *Schedule Ground Disturbance for the Dry Season.* To the extent practicable, project excavation and construction shall be scheduled for the dry season (April 15 through October 15).

HYD-1.2: *Comply with NPDES and SWPPP Requirements.* The permit requirements of the Regional Water Quality Control Board (RWQCB) shall be satisfied prior to issuing a building permit by the City of Scotts Valley. The project is subject to the conditions of the General Construction Activity National Pollution Discharge Elimination System (NPDES) permit from the RWQCB. This permit requires that the project sponsor develop a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP is required to identify the sources of sediment and other pollutants onsite, and to ensure the reduction of sediment and other pollutants in the stormwater discharged from the site. A monitoring program is required to aid the implementation of, and assure compliance with, the SWPPP.

HYD-1.3: *Prepare and Adhere to an Erosion/Sedimentation Plan.* An Erosion and Sedimentation Control Plan shall be submitted to the City of Scotts Valley by the project sponsor for the project prior to grading (this may be a portion of the SWPPP). An erosion control professional, landscape architect, or civil engineer specializing in erosion control shall design the Erosion and Sedimentation Control Plan. This plan would include, but is not necessarily limited to, the following provisions:

- a. The Erosion and Sedimentation Control Plan shall be submitted, reviewed, implemented and inspected as part of the approval process for the grading plan for the project.
- b. The Plan shall be designed by the developer's erosion control consultant, using concepts similar to those formulated by the Scotts Valley Public Works Department, as appropriate, based on the specific erosion and sediment transport control needs of each area in which grading, excavation, and construction is to occur. The possible methods are not necessarily limited to the following items:
 - Locate staging areas outside major streams and drainage ways.
 - Keep the lengths and gradients of constructed slopes (cut or fill) as low as possible.

- Discharge grading and construction runoff into small drainages at frequent intervals to avoid buildup of large potentially erosive flows.
 - Prevent runoff from flowing over unprotected slopes.
 - Keep disturbed areas (areas of grading and related activities) to the minimum necessary for construction of the project.
 - Keep runoff away from disturbed areas during grading and related activities.
 - Stabilize disturbed areas as quickly as possible, either by vegetative or mechanical methods.
 - Direct runoff over vegetated areas prior to discharge into public storm drainage systems, whenever possible.
 - Trap sediment before it leaves the site with such techniques as sediment ponds or siltation fences.
 1. Interceptor ditches, drainage swales, or detention basins shall be used to prevent storm runoff from transporting sediment into local storm drains and drainage ways and to prevent sediment-laden runoff from leaving the disturbed area.
 2. Replace existing silt fences to prevent sedimentation in adjacent and down gradient drainage ways. Additional silt fences shall be constructed by the contractor as needed prior to mass grading and other soil-disturbing construction activities onsite.
 3. Control landscaping activities with regard to the application of fertilizers, herbicides, pesticides or other hazardous substances. Provide proper instruction regarding use of these substances to all landscaping personnel on the construction team.
- c. During the installation of the erosion and sediment transport control structures, the erosion control professional shall be on the site to supervise the implementation of the designs, and the maintenance of the facilities throughout the grading and construction period.

2005 SEIR Mitigation HYD-2:

HYD-2.1: *Design and Construct Adequately Sized Detention Facilities.* Prior to issuance of building permits for both proposed developments [office building and fire station], the project sponsors shall submit designs for the detention facilities for approval by the City of Scotts Valley Public Works Department. Existing runoff from both project sites shall be routed through Onsite storm drain detention facilities so that the runoff can be metered prior to discharge into the existing storm drain system. The design shall provide sufficient information to enable the Public Works Department to determine that peak flows for the 10-year storm event can be contained.

HYD-2.2: *Incorporate Infiltration and Pollution Control Measures into Drainage System.* The project sponsor shall incorporate measures into drainage projects for both proposed

developments (storm drains, conduits, and channel improvements) that maximize infiltration/permeability and trap pollutants and sediment from stormwater runoff.

2005 SEIR Mitigation HYD-3:

HYD-3.1: *Install Pollutant Control Devices into the Storm Drainage System.* The office building developer and the Scotts Valley Fire District shall install easily cleanable sediment catch basins, debris screens, and grease separators or similar water quality protection devices in the drainage facilities serving both project sites (i.e., vegetated swales, buffer strips, detention pond areas).

HYD-3.2: *Ensure Maintenance of Pollutant Control Devices.* The office building developer and the Scotts Valley Fire District shall ensure maintenance of the stormwater pollution control facilities through in-lieu fees paid to the City, or by other means identified by the Public Works Department and Scotts Valley Water District.

HYD-3.3: *Label Storm Drain Inlets.* All storm drain inlets shall be labeled to educate the public about the adverse impacts associated with dumping into receiving waters.

HYD-3.4: *Clean Parking Areas.* The project sponsor shall clean or sweep parking areas on a monthly basis.

Significance after Implementation of 2005 SEIR Mitigation: Less than Significant

Proposed Project Impact Analysis

Impact HYD-1: The proposed project would require earthwork activities during construction that could potentially result in erosion and sedimentation of runoff offsite. (Significant)

As discussed in the 2005 SEIR, the project would disturb soils at the site during construction. When vegetation is removed from site soils and the soils are excavated and stockpiled, they can be exposed to the effects of wind- and water-induced erosion causing sedimentation of runoff if preventative measures are not taken. Grading activities at the construction site could increase the amount of total dissolved solids and other pollutants leaving the project area and adversely affect downstream water quality through erosion and the transport of sediments and dissolved constituents entering the storm drains in La Madrona Drive and eventually into Carbonera Creek or there tributary streams.

The potential impact to storm water quality during construction of the proposed project is measured against existing baseline conditions, as analyzed below.

Although, the proposed project has a different proposed layout, the construction activities would be similar. The retail store site remains in relatively similar condition to that of the when the 2005 project was proposed and therefore the potential impact from erosion and sedimentation is generally the same. Implementation of **Mitigation Measure HYD-1** as approved in the 2005

SEIR would also reduce the potential impacts of the currently proposed project to a less-than-significant level.

Mitigation Measure HYD-1: Implement Mitigation Measure HYD-1 as stated above.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: No New Impact or Changes

Impact HYD-2: The proposed project would increase the amount of impervious surfaces on the site which would result in higher levels of surface runoff, potentially increasing erosion and flood hazards downstream. (Significant)

The 2005 SEIR found that the project would have increased impervious surfaces by approximately 8.1 acres for both the office building and the fire station (6.6 acres for the office building alone, on the site now proposed for the retail store). The additional impervious surfaces would have resulted in a change of calculated peak flow from 10.3 cubic feet per second (cfs) under then-existing conditions to 19.1 cfs with the approved project. This increase would have been directed towards the existing drainage system along La Madrona Drive. The approved project included subsurface detention basins to attenuate peak flows so that they would not exacerbate existing stormwater flows. However, the sizing of these basins had not been completed and there was uncertainty as to whether they would be able to accommodate the 10-year/24-hour storm event.

The potential impact of increased storm water runoff quantities for the proposed project is measured against existing baseline conditions, as analyzed below.

The proposed project would similarly increase impervious surfaces for the site although it would represent a greater area. The project site remains in relatively similar condition to that of when the 2005 project was proposed and is still largely pervious. The proposed project would convert approximately 10.5 acres of pervious surfaces to impervious as opposed to the 8.1 acres of the approved project. With the approved fire station, the project as now proposed would result in an overall increase in impervious surface area of 12.0 acres, or 3.9 acres more than the approved project. Therefore, the potential runoff from the peak storm event would be greater and would require detention basins of greater capacity than with the approved project to adequately attenuate peak flows. Implementation of **Mitigation Measure HYD-2**, as approved in the 2005 SEIR, would also reduce the potential impacts to less than significant levels due to the fact that this mitigation measure calls for the appropriate sizing of the detention basins. However, the mitigation measure has been modified to be more applicable to the proposed project.

Mitigation Measure HYD-2a: *Design and Construct Adequately Sized Detention Facilities.* Prior to issuance of the building permit for the proposed development, the project sponsor shall submit designs for the detention facilities for approval by the City of Scotts Valley Public Works Department. Existing runoff from the retail store project site

shall be routed through onsite storm drain detention facilities so that the runoff can be metered prior to discharge into the existing storm drain system. The design shall be in accordance with current SWMP regulations. Detention basins shall provide for post-development flows that equal pre-development flows for a 24-hour 85th percentile rain event, or the flow of runoff produced from a rain event equal to at least two times the 85th percentile hourly rainfall intensity or whatever SWMP regulations are in effect at the time.

Mitigation Measure HYD-2b: *Incorporate Infiltration and Pollution Control Measures into Drainage System.* The project sponsor shall incorporate measures into drainage system for the proposed retail store development (storm drains, conduits, and channel improvements) that maximize infiltration/permeability and trap pollutants and sediment from stormwater runoff to the maximum extent practicable in accordance with SWMP regulations.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: No New Impact, but New or Updated Mitigation Identified

Impact HYD-3: The proposed project would increase stormwater runoff leaving the site which could potentially result in impacts to water quality downstream in receiving waters. (Significant)

Parking lots, streets, gutters, and other impervious areas are directly connected to storm drains. Without mitigation, the accumulation of urban pollutants between storm events can be washed into the storm drainage system causing a significant impact to water quality of receiving waters. The existing storm drains in La Madrona Drive discharge stormwater runoff into Carbonera Creek, and the San Lorenzo River and eventually the Pacific Ocean.

The potential impact to storm water quality during construction of the proposed project is measured against existing baseline conditions, as analyzed below.

The proposed project would result in an increase of impervious surfaces at the site by approximately 10.5 acres and would include access driveways and a parking lot similar to the approved project. Therefore the proposed project, in general terms, would have a similar potential to adversely affect receiving waters from non-point sources of pollutions such as the parking lot and driveways. Implementation of **Mitigation Measure HYD-3**, as approved in the 2005 SEIR, would also reduce the potential impacts to less than significant levels. However, the mitigation measure has been modified to be more applicable to the proposed project.

Mitigation Measure HYD-3a: *Install Pollutant Control Devices into the Storm Drainage System.* The project sponsor shall install easily cleanable sediment catch basins, debris screens, and grease separators or similar water quality protection devices in the drainage facilities serving both project sites (i.e., vegetated swales, buffer strips, detention pond areas).

Mitigation Measure HYD-3b: *Best Management Practices (BMPs)*. The project sponsor shall implement BMPs that are designed to protect water quality of stormwater runoff. The BMPs for the project shall be chosen by the City, in consultation with the Scotts Valley Water District, and the Regional Water Quality Control Board, and shall be determined prior to final project approval. BMPs shall be in accordance with the California Stormwater Quality Associations Handbook for new development. Low Impact Development measures shall be incorporated to the extent practicable into the final drainage plan design.

Mitigation Measure HYD-3c: *Ensure Maintenance of Pollutant Control Devices*. The project sponsor shall ensure maintenance of the stormwater pollution control facilities through in-lieu fees paid to the City, or by other means identified by the Public Works Department and Scotts Valley Water District.

Mitigation Measure HYD-3d: *Label Storm Drain Inlets*. All storm drain inlets shall be labeled to educate the public about the adverse impacts associated with dumping into receiving waters.

Mitigation Measure HYD-3d: *Clean Parking Areas*. The project sponsor shall clean or sweep parking areas on a monthly basis.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: No New Impact, but New or Updated Mitigation Identified

Impact HYD-4: The proposed project would reduce the amount of pervious surfaces on the site which could reduce the amount of groundwater recharge at the site. (Less than Significant)

The 2005 SEIR cited the 2001 geotechnical report that identified the underlying groundwater system as perched in localized areas. The underlying bedrock was discussed as a potential barrier to recharge of deeper groundwater aquifers and the SEIR characterized the area as one of groundwater discharge rather than one of recharge. The conclusion was that the approved project would have a less than significant impact.

The potential impact to groundwater recharge and supplies of the proposed project is measured against existing baseline conditions, as analyzed below.

In general, the existing conditions of the project site in terms of groundwater recharge and supplies are similar. Additional technical studies in the form of a more recent geotechnical investigation and a groundwater recharge evaluation have been conducted for the site which provides a better understanding of existing site conditions. The 2008 geotechnical investigation identified five main geologic units at the site including a quartz diorite bedrock layer that underlies the entire site at various depths. This igneous rock is closely related to granite and considered to be relatively impermeable. The perched groundwater that was described by the 2001 investigation was

confirmed by the 2008 investigation and groundwater was noted to occur mostly in the Santa Margarita Sandstone layer immediately above the contact with the quartz diorite (Kleinfelder, 2008). Therefore, although the recharge study concluded that deep drainage from the soil root-zone to lower portions of the soil profile was occurring at the site, the underlying impervious bedrock formation is preventing further infiltration to recognized formations or aquifers (LFR, 2008). According to the report, "This bedrock boundary is a barrier to actual groundwater recharge to recognized water bearing formations/aquifers and production wells located to the north and west of the site" (LFR, 2008). In addition, the LFR study cited a previous investigation that described the proposed site as a groundwater discharge zone as opposed to one where groundwater recharge was occurring (EIP Associates, 2004 as cited in LFR, 2008). Therefore, without an identified hydraulic connection to underlying groundwater formations or aquifers, the proposed project would result in a less-than-significant impact to groundwater recharge and supplies.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Cumulative Impacts

Impact HYD-5: The increased construction activity and new development resulting from the project, in conjunction with other past, present and reasonably foreseeable projects in the area would not result in substantial adverse cumulative impacts with respect to hydrology and water quality. (Less than Significant)

Implementation of the project, along with other past, present and reasonably foreseeable future projects in the vicinity, would result in increases in stormwater runoff and pollutant loading to receiving waters if unmitigated. The project and other projects in the vicinity are required and would be required to comply with the permit requirements intended to control runoff and regulate water quality at each development site. Additionally, new projects would be required to demonstrate that stormwater volumes would be managed by downstream conveyance facilities. New development projects within the County would also be required to comply with NPDES and local permitting requirements. The proposed project is a development project that would substantially change the drainage pattern at the currently undeveloped project site. However, the proposed project as well as the other projects would also be developed with drainage infrastructure that is designed to control water quality and quantity. Therefore the contribution of the project, with incorporation of mitigation measures discussed above, would not be cumulatively considerable.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

References – Hydrology and Water Quality

Department of Water Resources (DWR), *California Groundwater Bulletin 118, Scotts Valley Groundwater Basin*, last update January 20, 2006.

LFR, Inc., *Draft Site-Specific Groundwater Recharge Evaluation, APN # 021-141-05, Scotts Valley, California*, July 31, 2008.

Kleinfelder, *Draft Geotechnical Investigation Proposed Target Store La Madrona Drive and Silverwood Drive, Scotts Valley, California*, September 16, 2008.

Regional Water Quality Control Board (RWQCB), Central Coast Region, Resolution No. 2003-0061, adopted September 16, 2003.

G. Noise

This section provides an overview of the existing noise environment at the project site and surrounding area, the regulatory framework, an analysis of potential noise impacts that would result from implementation of the project, and mitigation measures where appropriate.

Setting

Noise Principles and Descriptors

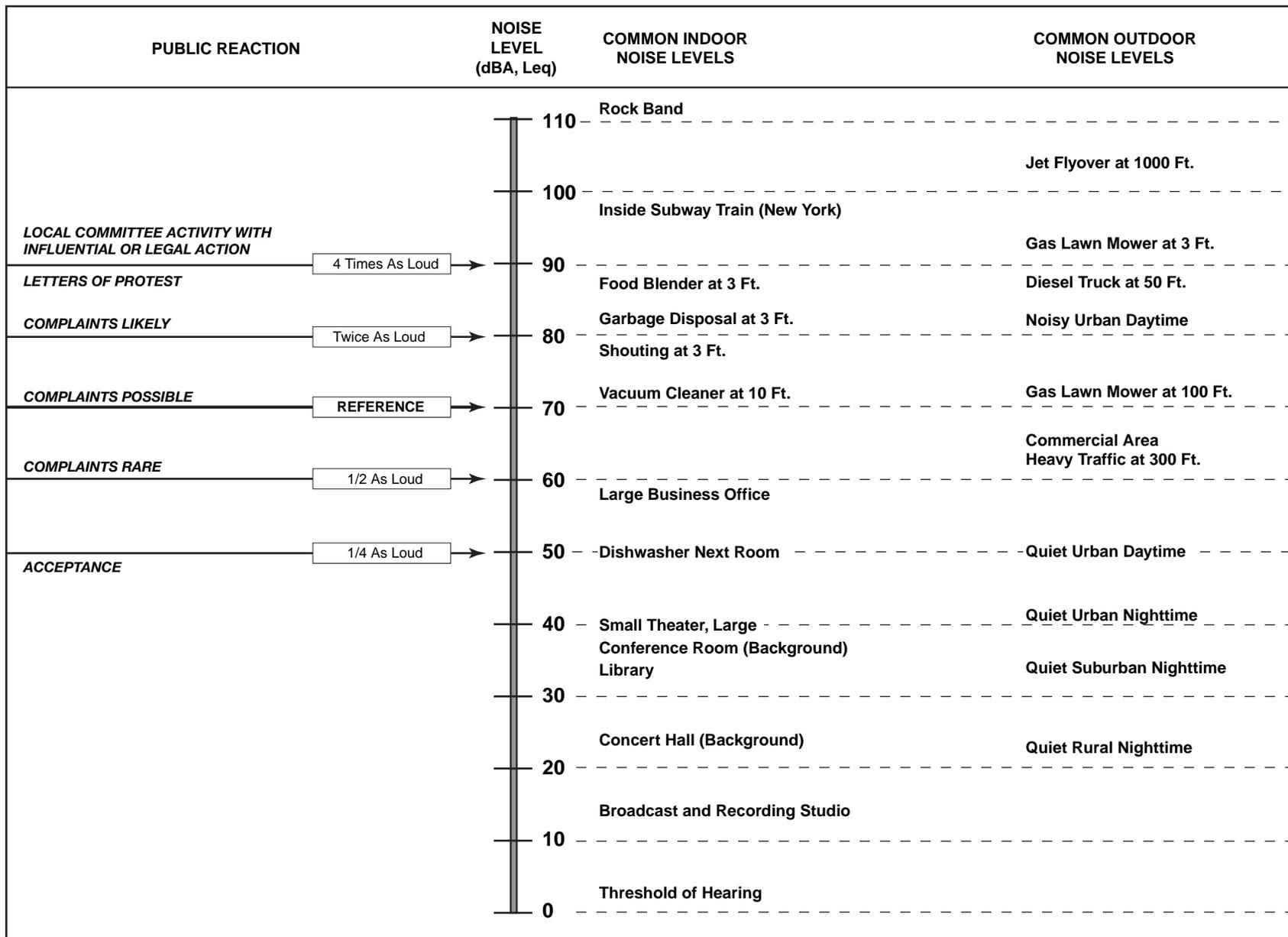
Noise is defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ears decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements. Some representative noise sources and their corresponding A-weighted noise levels are shown in **Figure 4.G-1**.

Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time. A noise level is a measure of noise at a given instant in time. The noise levels presented in Figure 4.G-1 are representative of measured noise at a given instant in time; however, they rarely persist consistently over a long period of time. Rather, community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions.



SOURCE: Caltrans Transportation Laboratory Noise Manual, 1982; and modification by ESA

Figure 4.G-1
Effects of Noise on People

What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, noisy vehicles, sirens), which are readily identifiable to the individual.

These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

Leq: The equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The Leq is the constant sound level that would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

Lmax: The instantaneous maximum noise level for a specified period of time.

L50: The noise level that is equaled or exceeded 50 percent of the specified time period. The L50 represents the median sound level.

L90: The noise level that is equaled or exceeded 90 percent of the specified time period. The L90 is sometimes used to represent the background sound level.

DNL: Also termed Ldn, the DNL is the 24-hour day and night A-weighted noise exposure level, which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night (“penalizing” nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises.

CNEL: Similar to the DNL the Community Noise Equivalent Level (CNEL) adds a 5-dBA “penalty” for the evening hours between 7:00 p.m. and 10:00 p.m., in addition to a 10-dBA penalty between the hours of 10:00 p.m. and 7:00 a.m.

As a general rule, in areas where the noise environment is dominated by traffic, the Leq during the peak-hour is generally equivalent to the DNL at that location (Caltrans, 1998).

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- Subjective effects of annoyance, nuisance, dissatisfaction;
- Interference with activities such as speech, sleep, learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants, for example, can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual’s past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so called “ambient noise” level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceptible difference;
- A change in level of at least 5 dBA is required before any readily noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Stationary point sources of noise, including temporarily stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate between 6 dBA and 7.5 dBA for each doubling of distance from the reference measurement, with the greater attenuation occurring at locations with “softer” terrain and surfaces. Hard sites are those with a reflective surface between the source and the receiver such as parking lots or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the changes in noise levels with distance (the drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface such as soft dirt, grass or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dBA (per doubling distance) is normally assumed for soft sites. Line sources (such as traffic noise from vehicles) attenuate at a rate of between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement (Caltrans, 1998).

Regulatory Framework

Federal

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 Code of Federal Regulations (CFR), Part 205, Subpart B. The federal truck pass-by noise standard is 80 dBA at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

State

The State of California establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the State pass-by standard is consistent with the federal limit of 80 dB. The state pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dBA at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by state and local law enforcement officials.

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of DNL 45 dBA in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than DNL 60 dBA. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

Local

City of Scotts Valley General Plan Noise

The following sections of the Scotts Valley General Plan are relevant to the project:

Goal NG-422 To provide an environment free from annoying and/or harmful noise.

Policy NP-442 New developments which may increase the day-night noise level by more than the levels shown in **Table 4.G-1** shall be approved only when proper noise attenuation design measures have been incorporated to the City's satisfaction.

Policy NP-442 New developments shall include measures to minimize increases in local ambient noise levels.

**TABLE 4.G-1
SCOTTS VALLEY NOISE INCREASE STANDARDS**

Proposed New Use/Location of dBA Reading	Maximum Noise Level Increase in dBA adjacent to existing			
	Sensitive	Residential	Commercial	Industrial
Sensitive at Property Line	3	5	5	5
Sensitive at 50' from PL	3	3	--	--
Residential at Property Line	3	5	5	5
Residential at 50' from PL	3	3	--	5
Commercial at Property Line	3	5	5	5
Commercial at 50'	3	3	--	--
Industrial at Property Line	3	5	5	7
Industrial at 50'	3	3	--	--

SOURCE: Scotts Valley General Plan (1994)

City of Scotts Valley Municipal Code

The following sections of the Scotts Valley Municipal Code are relevant to the project:

17.44.020 Commercial and industrial performance standards: The Scotts Valley maximum noise thresholds for different land uses are presented in **Table 4.G-2**.

17.030 Exemptions: Noise generated by city-permitted construction activities occurring during authorized construction hours are exempt from noise thresholds. All construction activity shall be limited to the hours between 8:00 a.m. and 6:00 p.m., Monday through Friday and 9:00 a.m. through 5:00 p.m. on Saturday. No construction activity is allowed on Sunday.

**TABLE 4.G-2
SCOTTS VALLEY MUNICIPAL CODE NOISE THRESHOLDS**

	Industrial or wholesale	Offices or retail	Residential, park, or institutional
Maximum sound generated by any user at property line	75 dBA	70 dBA	60 dBA

Existing Noise Environment

The noise environment surrounding the project site is influenced primarily by vehicle traffic on State Route (SR) 17 and La Madrona Drive. Noise levels away from these noise sources can be quite low depending on the amount of nearby human activity. Metrosonics Model db308 sound level meters were used to measure the existing ambient noise levels at various locations on the project site. The meters were calibrated to ensure the accuracy of the measurements. Long-term (72-hour) noise level measurements were taken at two locations at and in the vicinity of the project site. Short-term noise level measurements were taken at four locations around the project site. The noise measurement results are presented below in **Table 4.G-3**.

Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others because of the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, hotels, schools, rest homes, and hospitals are generally more sensitive to noise than commercial and industrial land uses. The nearest sensitive receptors to the proposed project are the closest homes in the Monte Fiore subdivision, approximately 400 feet west of the proposed project site on Silverwood Drive, and the closest homes in the Manana Woods subdivision, about 400 feet north of the site on Miraflores Road and La Cuesta Road at Altenitas Road. In addition, the Hilton Hotel is located approximately 40 feet from the proposed parking lot ramp.

**TABLE 4.G-3
EXISTING NOISE ENVIRONMENTS AT PROJECT LOCATION**

Location	Time Period	Leq (dBA)	Noise Sources
Long-Term Measurements			
Measurement 1 (LT-1): Attached to "No Parking" sign in front of residence at 124 Silverwood Drive	11/16/08 – 11/18/08 24-hour CNEL measurements were: Sunday: 53 Monday: 54 Tuesday: 54	Hourly Leq's ranged from: 42 - 56 dBA	Unattended noise measurements do not specifically identify noise sources.
Measurement 2 (LT-2): On project site, approximately 385 feet from La Madrona (near Hilton Hotel)	11/16/08 – 11/18/08 24-hour CNEL measurement was: Sunday: 55 Monday: 57 Tuesday: 59	Hourly Leq's ranged from: 47 – 65 dBA	Unattended noise measurements do not specifically identify noise sources.
Short-Term Measurements			
Measurement 1 (ST-1): Near LT-2, approximately 385 feet from La Madrona (near Hilton Hotel)	11/20/08 1:39 – 1:44 PM	5-minute Leq 53 dBA	* Traffic on SR 17, Mt Hermon Road and La Madrona Drive * Intermittent staple gun use at Hilton Hotel * HVAC at Hilton
Measurement 2 (ST-2): Near LT-1, in front of 124 Silverwood Drive residence	11/20/08 1:59 – 2:04 PM	5-minute Leq 61 dBA	* Wind through trees * Traffic in distance * Cars and a heavy truck on Silverwood Drive
Measurement 3 (ST-3): Near Heritage Park Gatehouse, approximately 50 feet from center of Silverwood Drive	11/20/08 2:18 – 2:23 PM	5-minute Leq 60 dBA	* Cars on Silverwood * Traffic on SR 17 and arterials * Wind
Measurement 4 (ST-4): On side of hill, approximately 50 feet from center of Silverwood Drive	11/20/08 2:28 – 2:33 PM	5-minute Leq 54 dBA	* Traffic on SR 17 and arterials * Cars on Silverwood * Wind * Birds Chirping

SOURCE: ESA, 2008.

Impacts Analysis

Methodology

Noise impacts are assessed based on a comparative analysis of the noise levels resulting from the project and the noise levels under existing conditions. Analysis of temporary construction noise effects is based on typical construction phases and equipment noise levels and attenuation of those noise levels due to distances, and any barriers between the construction activity and the sensitive receptors near the sources of construction noise.

Reference noise levels and attenuation for operational equipment, in addition to the Federal Highway Administration's Highway Traffic Noise Prediction Model (FHWA-RD-77-108) were relied on to determine if noise generated by the proposed project would contribute to

increased noise in the project area due to an increase in traffic volumes along local roadways during operation.

Significance Criteria

Based on Appendix G the *CEQA Guidelines*, a project may be deemed to have a significant effect on the environment with respect to noise and/or ground-borne vibration if it would result in:

- 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;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- Exposure of people residing or working in the project area to excessive noise levels (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);
- Exposure of people residing or working in the project area to excessive noise levels (for a project within the vicinity of a private airstrip); or
- Exposure of persons to, or generation of, excessive ground-borne vibration or ground-borne noise levels.

The following analysis discusses the first three criteria; the fourth and fifth are not discussed because the site lies outside a two-mile radius of a public airport or private airstrip. The sixth significance criterion is not discussed further since project construction would not involve activities that are typically associated with significant ground-borne vibration (i.e., pile driving, blasting, rock drilling).

Some guidance as to the significance of changes in ambient noise levels is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON), which assessed the annoyance effects of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Annoyance is a summary measure of the general adverse reaction of people to noise that generates speech interference, sleep disturbance, or interference with the desire for a tranquil environment. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been asserted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the Ldn, as shown in **Table 4.G-4**.

The rationale for the Table 4.G-4 criteria is that, as ambient noise levels increase, a small increase in decibel levels is sufficient to cause significant annoyance. The quieter the ambient noise level is, the more the noise can increase (in decibels) before it causes significant annoyance.

**TABLE 4.G-4
MEASURES OF SUBSTANTIAL INCREASE FOR NOISE EXPOSURE**

Ambient Noise Level without project (Ldn)	Significant Impact Assumed to Occur if the project Increases Ambient Noise Levels By:
<60 dB	+ 5.0 dB or more
60-65 dB	+ 3.0 dB or more
>65 dB	+ 1.5 dB or more

SOURCE: Federal Interagency Committee on Noise (FICON), 1992.

Construction Noise

Noise impacts from short-term construction activities could exceed noise thresholds and could result in a significant construction impact if short-term construction activity occurred outside of the daytime hours permitted by the City's noise ordinance. However, project construction would be temporary in duration and only occur in short intervals (i.e. as long as the particular piece of construction machinery is running).

Stationary Source Noise

A resulting offsite noise level at residences from stationary non-transportation sources that exceed an exterior maximum of 60 dBA would result in a significant noise impact.

Traffic Noise

As described in Table 4.G-4, the project would result in a significant traffic noise impact if mobile noise would result in increased noise levels of 1.5 dBA Ldn or more in an ambient noise environment greater than 65 dBA Ldn; or increased noise of 3 dBA Ldn or more in an ambient noise environment between 60 and 65 dBA Ldn; or increased noise of 5 dBA Ldn or more in an ambient environment of less than 60 dBA Ldn. The FICON thresholds are representative of noise increases that could adversely affect sensitive receptors along the roadway. Although an increase in noise may be significant based on the thresholds, if there are no sensitive receptors along the roadway and thus no receptors that would be adversely impacted, then the noise would be deemed less-than-significant.

Impacts and Mitigation Measures

Comparison of the Proposed Project and the 2005 SEIR

Like the 2005 approved project, the proposed project would develop a similar square footage of land in planning area B. The proposed project would construct a 143,000-square foot store on the west side of State Route 17. The proposed project is similar in scope to the 2005 SEIR project in that the prior project was approved to develop a combined total of 148,000 square feet for an office building and fire station. Both projects propose to develop the more level parcel of the area, retaining the upper slopes of the parcel as permanent open space. In addition, both projects propose to develop a similar number of parking spaces, 517 spaces for the proposed project in a

two-story parking deck, and 550 spaces for the office building and fire station. The currently proposed project would be constructed on for the parcel on the west side of La Madrona Drive, whereas only the 136,000 square foot office building was proposed for that same lot and the 12,000 square foot fire station was proposed for the lot on the east side of La Madrona Drive. Most importantly, the proposed project would develop a retail store, as opposed to the approved office use.

Changes in Circumstances and Information since the 2005 SEIR

The overall circumstances and conditions for the current proposed retail project have not substantially changed from those that existed when the 2005 SEIR was prepared. The area surrounding the project site has not undergone substantial physical changes (for example, any substantial new development or changes in infrastructure, circulation, public facilities, or natural resources), since preparation of the 2005 SEIR.

Summary of 2005 SEIR Impacts

The 2005 SEIR concluded that construction of the previously proposed office building would have a potentially significant impact temporarily increasing noise levels during construction of the proposed project. The 2005 SEIR identified Mitigation NO-1.1a through NO-1.1f to mitigate the significant impact resulting from development proposed to less-than-significant:

SEIR Measure NO-1.1a: Maximize the physical separation between noise generators and noise receptors. Such separation includes, but is not limited to, the following measures:

- Provide enclosures such as heavy-duty mufflers for stationary equipment and barriers around particularly noisy areas on the site or around the entire site;
- Use shields, impervious fences, or other physical barriers, to inhibit transmission of noise to sensitive receptors;
- Locate stationary equipment to minimize noise impacts on the community; and
- Minimize backing movements of equipment

2005 SEIR Measure NO-1.1b: Use quiet construction equipment wherever possible, particularly air compressors.

2005 SEIR Measure NO-1.1c: Prohibit unnecessary idling of internal combustion engines.

2005 SEIR Measure NO-1.1d: Schedule construction activity that produces higher noise levels during less noise-sensitive hours (normally 8:00 a.m. to 5:00 p.m. on weekdays and 9:00 a.m. to 4:00 p.m. on Saturdays). Minimize noise intrusive impacts during the above most noise sensitive hours by planning noisier operations during times of highest ambient noise levels.

2005 Measure NO-1.1e: Select routes for movement of construction-related vehicles and equipment in conjunction with the City of Scotts Valley Planning Department so that noise sensitive areas, including residences, hotels, and outdoor recreation areas, are avoided as

much as possible. Include these routes in materials submitted to the Community Development Director for approval prior to the issuance of building permits.

2005 Measure NO-1.1f: Designate a noise disturbance coordinator who will be responsible for responding to complaints about noise during construction. The telephone number of the noise disturbance coordinator shall be conspicuously posted at the construction site and shall be provided to the Community Development Director. Copies of the construction schedule shall also be posted at nearby noise-sensitive areas.

Significance after Implementation of 2005 SEIR Mitigation: Less than Significant

Construction Impacts

Impact NOI-1: Project construction could expose persons to or generate noise levels in excess of standards. (Significant)

Construction activity noise levels at and near the construction areas would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. In addition, certain types of construction equipment generate impulsive noises (such as pile driving), which can be particularly annoying. Pile driving, however, is not proposed for project development. **Table 4.G-5** shows typical noise levels during different construction stages. **Table 4.G-6** presents typical noise levels produced by various types of construction equipment.

**TABLE 4.G-5
TYPICAL CONSTRUCTION NOISE LEVELS**

Construction Phase	Noise Level (dBA, Leq)^a
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

^a Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.

SOURCE: U.S. Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, 1971.

Noise from construction activities generally attenuates at a rate of 6 to 7.5 dBA per doubling distance. Based on the proposed project site layout and terrain, an attenuation of 6 dBA will be conservatively assumed. The nearest residence is approximately 400 feet from project construction. Table 4.G-6 states that excavation is 89 dBA at 50 feet, if attenuated out to

**TABLE 4.G-6
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT**

Construction Phase	Noise Level (dBA, Leq)^a
Dump Truck	88
Portable Air Compressor	81
Concrete Mixer (Truck)	85
Scraper	88
Jack Hammer	88
Dozer	87
Paver	89
Generator	76
Pile Driver	101
Backhoe Finishing	85

SOURCE: Cunniff, Environmental Noise Pollution, 1977.

400 feet, these residences would experience noise levels of about 72 dBA Leq during finishing and excavation, the loudest of construction activities that would occur. Subsequent exposure to construction noise by individual residences could be lessened over time due to attenuation of noise by project structures built in the interim. The Hilton Hotel would be located approximately 40 feet from construction of the parking lot, excavation at 89 dBA at 50 feet attenuated to 40 feet the hotel would experience noise levels of approximately 91 dBA. However the parking lot ramp has a wall that would further attenuate noise levels.

Construction noise at these levels would be substantially greater than existing noise levels at nearby sensitive receptor locations. These construction noise levels, especially if they were to occur during the nighttime hours when people are sleeping, would be potentially significant. The City of Scotts Valley noise ordinance states that construction activity shall be limited to the hours between 8:00 a.m. and 6:00 p.m., Monday through Friday and 9:00 a.m. through 5:00 p.m. on Saturday. No construction activity is allowed on Sunday. Daytime construction is commonly exempt from noise ordinances because background noise is typically louder during the day than at night, and sleep disturbance is typically considered to be a nighttime impact. Because the construction contractor would be required to comply with the noise ordinance, construction noise would not occur during times that could result in the greatest disturbance.

Mitigation Measure NOI-1: Implement 2005 SEIR Mitigation NO-1.1a through NO-1.1f.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: No New Impact or Changes

Operational Impacts

Impact NOI-2: Operation of the proposed project would not expose persons to or generate noise levels in excess of standards established in the local general plans or noise ordinances, or applicable standards of other agencies. (Less than Significant)

Heating, Ventilating, and Air Conditioning (HVAC) Equipment Noise

The HVAC system for maintaining comfortable temperatures within the proposed building would consist of packaged rooftop air conditioning systems. Such rooftop HVAC units typically generate noise levels of approximately 55 dB at a reference distance of 100 feet from the operating units during maximum heating or air conditioning operations. The noise level of the HVAC, if on the edge of the building nearest the sensitive receptor (about 350 feet), would be about 44 dBA. This would be a less-than-significant impact.

Loading Docks

To assess loading dock activity noise impacts at the nearest potentially affected noise-sensitive land uses (residences west of the project site), reference noise levels of 80 dB Lmax and 60 dB Leq at a distance of 50 feet were used, based on data from operation of comparable facilities. These data include noise generated by truck arrivals and departures from the unloading area, trucks backing into the docks (including backup beepers), air brakes, and other related truck unloading noise.

The nearest residential property lines to the truck unloading areas of the proposed project would be approximately 520 feet. At this distance, unmitigated loading dock area noise at the property lines would be approximately 40 dB Leq and 60 dB Lmax. Furthermore the loading dock would have a wall between it and the nearest sensitive receptor, lessening the noise levels even more. This would be a less-than-significant impact.

Parking Deck

The center of the main parking lot is proposed to be located approximately 300 feet from the Hilton Hotel, which would be partially shielded by the wall along the ramp structure. For the purposes of this analysis, this distance will be considered the focal point where parking activity noise is generated.

As a means of determining the noise levels due to parking lot activities noise level data collected at various parking areas was utilized. A typical SEL due to automobile arrivals and departures, including car doors slamming, and people conversing is approximately 71 dB, at a distance of 50 feet. Based on information provided by the project transportation consultant, almost 800 vehicles would arrive and depart during the Saturday peak hour. Assuming 800 parking deck movements, the peak hour Leq noise level can be determined using the following formula:

Peak Hour Leq = 71dB + [10 * log(800)] - 35.6dB, where:

71 is the mean sound exposure level (SEL) for an automobile arrival and departure, and 10 * (log 800) is 10 times the logarithm of the number of automobile arrivals and departures per hour, and 35.6 is 10 times the logarithm of the number of seconds in an hour.

Based upon the equation above, the parking lot would result in a daytime peak hour Leq of approximately 64 dBA, at a distance of 50 feet. At 300 feet, the predicted noise level, at the Hilton Hotel would be approximately 48 dB Leq. Additional shielding would be provided by the intervening parking deck itself. Therefore a -5 dB offset may be applied to the parking lot noise levels. Accounting for shielding, the parking lot noise levels at the Hilton Hotel are predicted to be 43 dB Leq, which would be less-than-significant and no mitigation is required.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Impact NOI-3: Traffic associated with operation of the project would result in an increase in ambient noise levels on nearby roadways used to access the project site. (Less than Significant)

Most of the noise generated by the implementation of the project would primarily be traffic-generated noise. The project would contribute to an increase in local traffic volumes, resulting in higher noise levels along local roadways. Using a spreadsheet based upon algorithms from the Federal Highway Administration's Highway Traffic Noise Prediction Model (FHWA-RD-77-108), traffic noise levels were analyzed for 5 roadway segments with sensitive receptors near the project site. The segments analyzed and results of the modeling are shown in **Table 4.G-7**.

**TABLE 4.G-7
EXISTING PEAK-HOUR NOISE LEVELS ALONG SELECTED ROADWAYS**

Modeled Roadway Segment	Peak Hour Noise Levels (Leq) ^a			Significant (Yes/No) ^b
	Existing	Existing + Project	Difference between Existing and Existing + Project	
Glen Canyon East of Mt. Hermon	63	63	0	No
Mt. Hermon South of Glen Canyon	69	69	0	No
Alenitas Rd West of La Madrona	53	53	0	No
La Madrona South of Silverwood Rd	58	58	0	No
Silverwood Rd West of La Madrona	55	55	0	No

^a Noise levels are estimated at a distance of 50 feet from roadway centerline. Data based on PM Peak Hour. Ldn is approximately equal to the Leq peak hour under normal traffic conditions (Caltrans, 1998).

^b Considered significant if the incremental increase in noise is greater than 5 dBA Leq in a noise environment of 60 dBA Ldn or less, an increase of 3 dBA Leq in a noise environment greater than 60 dBA and 65 dBA Ldn, or an increase of 1.5 dBA Leq in a noise environment greater than 65 dBA Ldn.

SOURCE: ESA, 2009.

As depicted in Table 4.G-7, traffic noise levels on the analyzed roadway segments would not result in a significant increase in noise; no sensitive receptors in the area would be impacted and therefore traffic associated with the project is less-than-significant.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Cumulative Impacts

Impact NOI-4: The proposed project, together with anticipated future development in the area, could result in long-term traffic increases that could cumulatively increase noise levels. (Less than Significant)

Noise from cumulative development in the area would primarily occur from increases in motor vehicles traffic. Cumulative traffic noise levels in the project area were estimated using traffic data from the traffic report and are presented in **Table 4.G-8**. As shown in the table, the addition of cumulative traffic would increase traffic noise levels near sensitive receptors over existing conditions. However, as shown below, the difference between the cumulative and cumulative plus project scenarios would be insubstantial and thus the project itself is not cumulatively considerable. Therefore, the cumulative noise increase would be due almost entirely to other traffic, and this would be a less-than-significant cumulative impact of the proposed project.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

References – Noise

Caltrans, *Technical Noise Supplement*, 1998. Available on the internet at:
<http://www.dot.ca.gov/hq/env/noise/pub/Technical%20Noise%20Supplement.pdf>. Viewed July 29, 2009. Cunniff, Patrick, *Environmental Noise Pollution*, 1977. New York: John Wiley Books.

Federal Interagency Committee on Noise (FICON), *Federal Agency Review of Selected Airport Noise Analysis Issues*, 1992.

U.S. Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, 1971.

**TABLE 4.G-8
EXISTING AND CUMULATIVE PEAK-HOUR NOISE LEVELS ALONG SELECTED ROADWAYS**

Modeled Roadway Segment	Peak Hour Noise Levels (Leq) ^a							
	Existing	Cumulative+ Project	Difference between Existing and Cumulative + Project	Significant (Yes/No) ^b	Cumulative	Cumulative + Project	Difference between Cumulative and Cumulative + Project	Significant (Yes/No) ^b
Glen Canyon East of Mt. Hermon	63	64	1	No	64	64	0	No
Mt. Hermon South of Glen Canyon	69	72	3	Yes	72	72	0	No
Alenitas Rd West of La Madrona	53	53	0	No	53	53	0	No
La Madrona South of Silverwood Rd	58	59	1	No	59	59	0	No
Silverwood Rd West of La Madrona	55	55	0	No	55	55	0	No

^a Noise levels are estimated at a distance of 50 feet from roadway centerline. Data based on PM Peak Hour. Ldn is approximately equal to the Leq peak hour under normal traffic conditions (Caltrans, 1998).
^b Considered significant if the incremental increase in noise is greater than 5 dBA Leq in a noise environment of 60 dBA Ldn or less, an increase of 3 dBA Leq in a noise environment greater than 60 dBA and 65 dBA Ldn, or an increase of 1.5 dBA Leq in a noise environment greater than 65 dBA Ldn.

SOURCE: ESA, 2009.

H. Air Quality

Setting

This section provides an overview of the existing air quality at the project site and surrounding region, the regulatory framework, an analysis of potential impacts to air quality that would result from implementation of the project, and identification of mitigation measures.

Climate and Meteorology

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The project site is located in the City of Scotts Valley and is within the boundaries of the North Central Coast Air Basin, which consists of Monterey, Santa Cruz and San Benito Counties. The climate of the Basin is determined largely by a high-pressure system that is almost always present over the eastern Pacific Ocean off the West Coast of North America. During winter, the Pacific high-pressure system shifts southward, allowing storms to pass through the region. In Santa Cruz County, coastal mountains exert strong influence on atmospheric circulation and result in generally good air quality, although small inland valleys such as Scotts Valley with low mountains on two sides have poorer circulation than at the coast.

Regulatory Setting and Air Quality Standards

Federal

The federal Clean Air Act requires the U.S. Environmental Protection Agency (USEPA) to identify National Ambient Air Quality Standards (national standards) to protect public health and welfare. National standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter less than 10 and less than 2.5 microns in diameter (PM₁₀ and PM_{2.5}, respectively) and lead; together, these pollutants are commonly referred to as “criteria air pollutants.” **Table 4.H-1** shows current national and state ambient air quality standards and provides a brief discussion of the related health effects and principal sources for each pollutant.

Pursuant to the 1990 Federal Clean Air Act Amendments, the USEPA classifies air basins (or portions thereof) as “attainment” or “nonattainment” for each criteria air pollutant, based on whether or not the national standards have been achieved. **Table 4.H-2** shows the current attainment status for Santa Cruz County.

The Clean Air Act requires each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The Clean Air Act Amendments added requirements for states containing areas that violate the national standards to revise their SIPs to incorporate additional air pollution control measures. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA has responsibility to review all state SIPs to

**TABLE 4.H-1
STATE AND NATIONAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES**

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 hour	0.09 ppm	---	High concentrations can directly affect lungs, causing irritation.	Formed when reactive organic gases (ROG) and nitrogen oxides (NOx) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
	8 hours	0.07 ppm	0.075 ppm	Long-term exposure may cause damage to lung tissue.	
Carbon Monoxide	1 hour	20 ppm	35 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm		
Nitrogen Dioxide	1 hour	0.18 ppm	---	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
	Annual Avg.	0.030	0.053 ppm		
Sulfur Dioxide	1 hour	0.25 ppm	---	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	3 hours	---	0.5 ppm		
	24 hours	0.04 ppm	0.14 ppm		
	Annual Avg.	---	0.03 ppm		
Respirable Particulate Matter (PM ₁₀)	24 hours	50 µg/m ³	150 µg/m ³	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	Annual Avg.	20 µg/m ³	---		
Fine Particulate Matter (PM _{2.5})	24 hours	---	35 µg/m ³	Increases respiratory disease, lung damage, cancer, and premature death. Links to asthma, bronchitis, acute and chronic respiratory symptoms. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.
	Annual Avg.	12 µg/m ³	15 µg/m ³		
Lead	Monthly Ave.	1.5 µg/m ³	---	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	---	1.5 µg/m ³		
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	Geothermal Power Plants, Petroleum Production and refining	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations)
Sulfates	24 hour	25 µg/m ³	No National Standard	Produced by the reaction in the air of SO ₂ .	Breathing difficulties, aggravates asthma, reduced visibility

NOTE: ppm = parts per million; µg/m³ = micrograms per cubic meter.

SOURCE: California Air Resources Board, 2008a. *Ambient Air Quality Standards*, available at <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf> Standards last updated November 18, 2008. California Air Resources Board, 2001. *ARB Fact Sheet: Air Pollution Sources, Effects and Control*, <http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm>, page last updated December 2005.

**TABLE 4.H-2
SANTA CRUZ COUNTY ATTAINMENT STATUS**

Pollutant	Designation/Classification	
	National Standards	State Standards
Ozone – one hour	No Federal Standard ^a	Nonattainment
Ozone – eight hour	Unclassified/Attainment	Nonattainment
PM ₁₀	Unclassified	Nonattainment
PM _{2.5}	Unclassified/Attainment	Attainment
CO	Unclassified/Attainment	Unclassified
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified	Attainment
Lead	No Designation	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment

^a Federal One Hour Ozone National Ambient Air Quality Standard was revoked on June 15, 2005
^b The State 8-hour ozone standard was approved by ARB on April 28, 2005, and became effective May 17, 2006.

SOURCE: California Air Resources Board, 2009a. *Area Designation Maps*, <http://www.arb.ca.gov/desig/adm/adm.htm>, page updated February 9, 2009.

determine if they conform to the mandates of the Clean Air Act Amendments and will achieve air quality goals when implemented. If the USEPA determines a SIP to be inadequate, it may prepare a Federal Implementation Plan (FIP) for the nonattainment area and may impose additional control measures. Failure to submit an approvable SIP or to implement the plan within mandated timeframes can result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

Regulation of Toxic Air Contaminants (TACs), termed Hazardous Air Pollutants (HAPs) under federal regulations, is achieved through federal, State and local controls on individual sources.

State

The California Air Resources Board (ARB) manages air quality, regulates mobile emissions sources, and oversees the activities of county Air Pollution Control Districts and regional Air Quality Management Districts. ARB establishes state ambient air quality standards and vehicle emissions standards.

California has adopted ambient standards that are more stringent than the federal standards for the criteria air pollutants, and for two additional pollutants classified by the state as criteria pollutants—sulfates and hydrogen sulfide. These are shown in Table 4.H-1. Under the California Clean Air Act patterned after the federal act, areas have been designated as attainment or nonattainment with respect to the state standards. Table 4.H-2 summarizes the attainment status with California standards in the project vicinity.

Toxic Air Contaminants

California State law defines toxic air contaminants (TACs) as air pollutants having carcinogenic effects. The State Air Toxics Program was established in 1983 under Assembly Bill (AB) 1807 (Tanner). A total of 243 substances have been designated TACs under California law; they include the 189 (federal) hazardous air pollutants (HAPs) adopted in accordance with AB 2728. The Air Toxics “Hot Spots” Information and Assessment Act of 1987 (AB 2588) seeks to identify and evaluate risk from air toxics sources; however, AB 2588 does not regulate air toxics emissions. Toxic air contaminant emissions from individual facilities are quantified and prioritized. “High-priority” facilities are required to perform a health risk assessment and, if specific thresholds are violated, are required to communicate the results to the public in the form of notices and public meetings.

In August of 1998, ARB identified particulate matter emissions from diesel-fueled engines (diesel particulate matter, or DPM) as a TAC. ARB subsequently developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (ARB, 2000). The document represents proposals to reduce diesel particulate emissions, with the goal of reducing emissions and associated health risks by 75 percent in 2010 and by 85 percent in 2020. The program aims to require the use of state-of-the-art catalyzed diesel particulate filters and ultra low sulfur diesel fuel on diesel-fueled engines.

In 2005, ARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (ARB, 2005). The primary goal in developing the handbook was to provide information that will help keep California’s children and other vulnerable populations out of harm’s way with respect to nearby sources of air pollution. The handbook highlights recent studies that have shown that public exposure to air pollution can be substantially elevated near freeways and certain other facilities (i.e., distribution centers, rail yards, chrome platers, etc.). However, the health risk is greatly reduced with distance. For that reason, ARB provided some general recommendations aimed at keeping appropriate distances between sources of air pollution and sensitive land uses, such as residences.

Climate Change and Greenhouse Gases

Various gases that are classified as atmospheric greenhouse gases (GHGs) play a critical role in determining the Earth’s surface temperature. Solar radiation enters Earth’s atmosphere from space, and a portion of the radiation is absorbed by the Earth’s surface. The Earth re-radiates this energy back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in trapping infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained in the atmosphere, and results in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

The accumulation of GHGs has contributed to an increase in the temperature of the earth’s atmosphere and contributed to global climate change. The principal greenhouse gases are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H₂O). Carbon dioxide is the reference gas for

climate change because it is the predominant GHG emitted. In September 2002 then-Governor Davis signed Assembly Bill (AB) 1493 requiring the development and adoption of regulations to achieve “the maximum feasible reduction of greenhouse gases” emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the state.

In 2005, in recognition of California’s vulnerability to the effects of climate change, Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which statewide emission of greenhouse gas 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.

Assembly Bill 32 (AB 32)

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill 32, or AB 32), which requires ARB to design and implement emission limits, regulations, and other measures, such that statewide greenhouse gas emissions will be reduced to 1990 levels by 2020.

In December 2007, ARB approved the 2020 emission limit of 427 million metric tons of CO₂ equivalents (CO₂e) of greenhouse gases. This target requires the reduction of 169 million metric tons of CO₂e, or approximately 30 percent, from the state’s projected 2020 emissions of 596 million metric tons of CO₂e under “business-as-usual” conditions.

Also in December 2007, ARB adopted mandatory reporting and verification regulations pursuant to AB 32. The regulations became effective January 1, 2009, with the first reports covering 2008 emissions. The mandatory reporting regulations require reporting for certain types of facilities that make up the bulk of the stationary source emissions in California. Currently, the regulation identifies major facilities as those that generate more than 25,000 metric tons/year of CO₂e. Cement plants, oil refineries, electric-generating facilities/providers, cogeneration facilities, and hydrogen plants and other stationary combustion sources that emit more than 25,000 metric tons/year CO₂e, make up 94 percent of the point-source CO₂e emissions in California (ARB, 2007).

In December 2008, ARB adopted its *Climate Change Scoping Plan* (ARB, 2008b). The *Scoping Plan* reported that ARB met the first milestones set by AB 32 in 2007: developing a list of early actions to begin sharply reducing greenhouse gas emissions; assembling an inventory of historic emissions; and establishing the 2020 emissions limit. The *Scoping Plan* sets forth a set of actions designed to reduce overall carbon emissions in California. Key elements of the plan include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;

- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing state laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state’s long-term commitment to AB 32 implementation. (ARB, 2008b)

The *Scoping Plan* notes that “[a]fter Board approval of this plan, the measures in it will be developed and adopted through the normal rulemaking process, with public input” (ARB, 2008b).

The *Scoping Plan* states that local governments are “essential partners” in the effort to reduce greenhouse gas emissions, and that they have “broad influence and, in some cases, exclusive authority” over activities that contribute to greenhouse gas emissions, through their planning and permitting processes and laws, their outreach and education efforts, and their own operations. Many of the proposed measures to reduce greenhouse gas emissions rely on local government actions. The plan encourages local governments to reduce greenhouse gas emissions by approximately 15 percent from current levels by 2020 (ARB, 2008b).

The *Scoping Plan* also included recommended measures that were developed to reduce greenhouse gas emissions from key sources and activities while improving public health, promoting a cleaner environment, preserving our natural resources, and ensuring that the impacts of the reductions are equitable and do not disproportionately impact low-income and minority communities. These measures, shown below in **Table 4.H-3** by sector, also put the state on a path to meet the long-term 2050 goal of reducing California’s greenhouse gas emissions to 80 percent below 1990 levels. The measures in the *Scoping Plan* will be developed over the next two years and be in place by 2012.

CEQA Guidelines and Climate Change

Senate Bill 97, enacted in August 2007, directed the Governor’s Office of Planning and Research (OPR) to propose CEQA Guidelines “for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions.” SB 97 directed OPR to develop such guidelines by July 2009, and directed the State Resources Agency, the agency charged with adopting the CEQA Guidelines, to certify and adopt such guidelines by January 2010.

OPR has developed proposed amendments to the CEQA Guidelines to provide guidance with respect to the analysis and mitigation of the potential effects of GHG emissions (OPR, 2009).¹

¹ Prior to issuance of the proposed Guidelines amendments, in June 2008, OPR published a technical advisory on CEQA and Climate Change (OPR, 2008). The advisory offered more specific direction than ultimately was published in the proposed amendments. In the advisory, OPR set out the following process for evaluating greenhouse gas emissions. First, agencies should identify and quantify the project’s GHG emissions; second, they should determine whether the emissions are “cumulatively considerable” and thus could result in a significant impact on climate change; and third, if the impact is found to be significant, agencies should identify alternatives and/ or mitigation measures that would reduce the impact to a less-than-significant level.

**TABLE 4.H-3
LIST OF RECOMMENDED ACTIONS BY SECTOR**

Measure No.	Measure Description	GHG Reductions (Annual Million Metric Tons CO₂e)
Transportation		
T-1	Pavley I and II – Light Duty Vehicle Greenhouse Gas Standards	31.7
T-2	Low Carbon Fuel Standard (Discrete Early Action)	15
T-3 ¹	Regional Transportation-Related Greenhouse Gas Targets	5
T-4	Vehicle Efficiency Measures	4.5
T-5	Ship Electrification at Ports (Discrete Early Action)	0.2
T-6	Goods Movement Efficiency Measures. <ul style="list-style-type: none"> • Ship Electrification at Ports • System-Wide Efficiency Improvements 	3.5
T-7	Heavy-Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	0.93
T-8	Medium- and Heavy-Duty Vehicle Hybridization	0.5
T-9	High Speed Rail	1
Electricity and Natural Gas		
E-1	Energy Efficiency (32,000 GWh of Reduced Demand) <ul style="list-style-type: none"> • Increased Utility Energy Efficiency Programs • More Stringent Building & Appliance Standards Additional Efficiency and Conservation Programs	15.2
E-2	Increase Combined Heat and Power Use by 30,000 GWh (Net reductions include avoided transmission line loss)	6.7
E-3	Renewables Portfolio Standard (33% by 2020)	21.3
E-4	Million Solar Roofs (including California Solar Initiative, New Solar Homes Partnership and solar programs of publicly owned utilities) <ul style="list-style-type: none"> • Target of 3000 MW Total Installation by 2020 	2.1
CR-1	Energy Efficiency (800 Million Therms Reduced Consumptions) <ul style="list-style-type: none"> • Utility Energy Efficiency Programs • Building and Appliance Standards • Additional Efficiency and Conservation Programs 	4.3
CR-2	Solar Water Heating (AB 1470 goal)	0.1
Green Buildings		
GB-1	Green Buildings	26
Water		
W-1	Water Use Efficiency	1.4†
W-2	Water Recycling	0.3†
W-3	Water System Energy Efficiency	2.0†
W-4	Reuse Urban Runoff	0.2†
W-5	Increase Renewable Energy Production	0.9†
W-6	Public Goods Charge (Water)	TBD†
Industry		
I-1	Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	TBD
I-2	Oil and Gas Extraction GHG Emission Reduction	0.2
I-3	GHG Leak Reduction from Oil and Gas Transmission	0.9
I-4	Refinery Flare Recovery Process Improvements	0.3
I-5	Removal of Methane Exemption from Existing Refinery Regulations	0.01

TABLE 4.H-3 (Continued)
LIST OF RECOMMENDED ACTIONS BY SECTOR

Measure No.	Measure Description	GHG Reductions (Annual Million Metric Tons CO₂e)
Recycling and Water Management		
RW-1	Landfill Methane Control (Discrete Early Action)	1
RW-2	Additional Reductions in Landfill Methane <ul style="list-style-type: none"> • Increase the Efficiency of Landfill Methane Capture 	TBD†
RW-3	High Recycling/Zero Water <ul style="list-style-type: none"> • Commercial Recycling • Increase Production and Markets for Compost • Anaerobic Digestion • Extended Producer Responsibility • Environmentally Preferable Purchasing 	9†
Forests		
F-1	Sustainable Forest Target	5
High Global Warming Potential (GWP) Gases		
H-1	Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Services (Discrete Early Action)	0.26
H-2	SF ₆ Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	0.3
H-3	Reduction of Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)	0.15
H-4	Limit High GWP Use in Consumer Products Discrete Early Action (Adopted June 2008)	0.25
H-5	High GWP Reductions from Mobile Sources <ul style="list-style-type: none"> • Low GWP Refrigerants for New Motor Vehicle Air Conditioning Systems • Air Conditioner Refrigerant Leak Test During Vehicle Smog Check • Refrigerant Recovery from Decommissioned Refrigerated Shipping Containers • Enforcement of Federal Ban on Refrigerant Release during Servicing or Dismantling of Motor Vehicle Air Conditioning Systems 	3.3
H-6	High GWP Reductions from Stationary Sources <ul style="list-style-type: none"> • High GWP Stationary Equipment Refrigerant Management Program: <ul style="list-style-type: none"> - Refrigerant Tracking/Reporting/Repair Deposit Program - Specifications for Commercial and Industrial Refrigeration Systems • Foam Recovery and Destruction Program • SF Leak Reduction and Recycling in Electrical Applications • Alternative Suppressants in Fire Protection Systems • Residential Refrigeration Early Retirement Program 	10.9
H-7	Mitigation Fee on High GWP Gases	5
Agriculture		
A-1	Methane Capture at Large Dairies	1.0†

¹ This is not the SB 375 regional target. ARB will establish regional targets for each MPO region following the input of the regional targets advisory committee and a consultation process with MPO's and other stakeholders per SB 375

† GHG emission reduction estimates are not included in calculating the total reductions needed to meet the 2020 target

OPR does not identify a threshold of significance for GHG in the amendments, nor does it recommend assessment methodologies or specific mitigation measures. Rather, the proposed amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. OPR submitted the proposed amendments to the state Natural Resources Secretary on April 13, 2009. The Natural Resources Department, in turn, on July 3, 2009, began a formal administrative rulemaking process for certifying and adopting the amendments. The process of finalizing and adopting the amendments must be completed by January 1, 2010, pursuant to SB 97. Summaries of the main amendments, as they pertain to the proposed project, are provided below.

The proposed revisions include a new Guidelines Section 15064.4, *Determining the Significance of Impacts from Greenhouse Gas Emissions*, directs lead agencies to make a “good-faith effort” to “describe, calculate, or estimate” GHG emissions from a project. This section also states that an agency may consider, in determining the significance of GHG impacts, 1) the extent to which a project would increase GHG emissions, 2) whether those emissions would exceed a threshold established, by the agency, and 3) the extent to which the project “complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.” Proposed new subsection 15064.7(c) states that, in adopting a significance threshold for GHG emissions, an agency may consider thresholds previously adopted or recommended by other public agencies, or recommended by experts. Another new subsection, 15130(f), emphasizes that impacts related to GHG emissions are cumulative impacts, stating, “An EIR shall analyze greenhouse gas emissions resulting from a proposed project when the incremental contribution of those emissions may be cumulatively considerable.”

A new subsection concerning mitigation, 15126.4(c), includes considerations for lead agencies related to feasible mitigation measures to reduce GHG emissions, including measures “in an existing plan or mitigation program for the reduction of emissions,” project energy consumption, off-site measures, measures that sequester GHG emissions, and, in the case of a plan, policies to be implemented on a case-by-case basis by future projects.

In addition, as part of the proposed CEQA Guideline amendments, OPR added a new set of environmental checklist questions (VII. *Greenhouse Gas Emissions*) to the CEQA Guidelines Appendix G. The new set includes the following two questions—Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance? *or*
- b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

ARB Draft GHG Significance Thresholds

On October 24, 2008, ARB released its *Preliminary Draft Staff Proposal on Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act* for review and public comment (ARB, 2008d). The

proposal identifies benchmarks or standards that assist lead agencies in the significance determination for industrial, residential, and commercial projects. The proposal currently focuses on two sectors for which local agencies are typically the CEQA lead agency: industrial projects; and residential and commercial projects. Future proposals will focus on transportation projects, large dairies and power plant projects.

For industrial projects, ARB recommends that projects below the industrial screening level (7,000 metric tons/year CO₂e not including the traffic) can be found to be less-than-significant. For residential and commercial projects, ARB staff's objective is to develop a threshold on performance standards that will substantially reduce the GHG emissions from new projects and streamline the permitting of carbon-efficient projects. Performance standards would address the five major emission sub-sources for the sector: energy use, transportation, water use, waste, and construction. Projects may alternatively incorporate mitigation equivalent to these performance standards, such as measures from green building rating systems. ARB conducted public hearings and received public comment on the draft thresholds, but to date has not adopted the thresholds.

Local Standards

The Monterey Bay Unified Air Pollution Control District (MBUAPCD) is the regional agency with regulatory authority over emission sources in the North Central Coast Air Basin, which is comprised of Monterey, Santa Cruz, and San Benito counties.

MBUAPCD Rules and Regulations

The MBUAPCD is the regional agency responsible for rulemaking, permitting, and enforcement activities affecting stationary sources in the air basin. Specific rules and regulations adopted by the MBUAPCD limit the emissions that can be generated by various uses and/or activities, and identify specific pollution reduction measures that must be implemented in association with various uses and activities. These rules regulate not only emissions of the six (federal) criteria air pollutants, but also toxic emissions and acutely hazardous non-radioactive materials emissions. In general, as is the case with regional air quality districts statewide, the MBUAPCD has no direct permit authority over residential and commercial development projects. Emissions sources that area subject to district rules and are regulated through the MBUAPCD's permitting process and standards of operation include stationary equipment, including standby generators, that exceed a certain size.

Regional Setting

Existing Air Quality

The MBUAPCD and ARB operate a regional monitoring network that measures the ambient concentrations of the six criteria air pollutants. The Scotts Valley #4 Monitoring Station, located at 4859 Scotts Valley Drive, is nearest to the project site (approximately 1.5 miles to the northeast) and can be considered to be representative of the air quality in the vicinity of the project site. This station only monitors for ozone. The 2544 Soquel Avenue station in Santa Cruz, about 4 miles southeast of the project site, monitors ozone and PM₁₀ and PM_{2.5}. **Table 4.H-4**

**TABLE 4.H-4
AIR QUALITY DATA SUMMARY (2006 - 2008)**

Pollutant	Monitoring Data by Year			
	Standard ^a	2006	2007	2008
Ozone – Scotts Valley				
Highest 1 Hour Average (ppm) ^b		0.094	0.074	0.092
Days over State Standard	0.09	0	0	0
Highest 8 Hour Average (ppm) ^b		0.071	0.069	0.075
Days over State Standard	0.07	0	0	1
Days over National Standard	0.075	0	0	0
Particulate Matter (PM10) – Santa Cruz				
Highest 24 Hour Average (µg/m ³) ^b		37	32	45
Est. Days over State Standard ^c	50	0	0	0
Highest 24 Hour Average (µg/m ³) ^b – Nat'l Meas.		37	34	44
Est. Days over National Standard ^c	150	0	0	0
State Annual Average (µg/m ³) ^b	20	18.4	18	18.8
Particulate Matter (PM2.5) – Santa Cruz				
Highest 24 Hour Average (µg/m ³) ^b		12.6	18.3	14.9
Days over National Standard ^d	35	0	0	0
State Annual Average (µg/m ³) ^b	12	NA	6.3	6.8

NOTES: Values in **bold** are in excess of at least one applicable standard. NA = Not Available.

^a Generally, state standards and national standards are not to be exceeded more than once per year.

^b ppm = parts per million; µg/m³ = micrograms per cubic meter.

^c PM₁₀ is not measured every day of the year. Number of estimated days over the standard is based on 365 days per year.

^d Days over National Standard for PM_{2.5} are based on the previous standard of 65 µg/m³ rather than the current standard of 35 µg/m³.

SOURCE: California Air Resources Board, 2009b. *Summaries of Air Quality Data, 2006, 2007, 2008*; <http://www.arb.ca.gov/adam/cgi-bin/db2www/polltrends.d2w/start>

shows a three-year summary of monitoring data for these stations. In addition, air pollutants of interest to the regulatory agencies for their potential adverse impacts on sensitive receptors are described below.

Criteria Air Pollutants

The key criteria pollutants are discussed below. Health effects of these pollutants are additionally presented in Table 4-H-1, p. 4-H-2.

Ozone

Ozone, the main component of photochemical smog, is primarily a summer and fall pollution problem. Ozone is not emitted directly into the air but is formed through a complex series of chemical reactions involving other compounds that are directly emitted. These directly emitted pollutants (also known as ozone precursors) include reactive organic gases (ROG) and nitrogen oxides (NO_x). The time period required for ozone formation allows the reacting compounds to spread over a large area, producing a regional pollution problem. Ozone problems are the cumulative result of regional development patterns rather than the result of a few significant emission sources. Once formed, ozone remains in the atmosphere for one or two days. Ozone is

then eliminated through reaction with chemicals on the leaves of plants or through interaction with water droplets or molecules.

Respirable Particulate Matter (PM₁₀ and PM_{2.5})

PM₁₀ and PM_{2.5} consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. (A micron is one-millionth of a meter). PM₁₀ and PM_{2.5} represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. Some sources of particulate matter, such as wood burning in fireplaces, demolition, and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates also can damage materials and reduce visibility. Large dust particles (diameter greater than 10 microns) settle out rapidly and are easily filtered by human breathing passages. This large dust is of more concern as a soiling nuisance rather than a health hazard. The remaining fraction, PM₁₀ and PM_{2.5}, are a health concern particularly at levels above the federal and state ambient air quality standards. PM_{2.5} (including diesel exhaust particles) is thought to have greater effects on health, because these particles are so small and thus, are able to penetrate to the deepest parts of the lungs. Scientific studies have suggested links between fine particulate matter and numerous health problems including asthma, bronchitis, acute and chronic respiratory symptoms such as shortness of breath and painful breathing. Recent studies have shown an association between morbidity and mortality and daily concentrations of particulate matter in the air. Children are more susceptible to the health risks of PM₁₀ and PM_{2.5} because their immune and respiratory systems are still developing.

Mortality studies since the 1990s have shown a statistically significant direct association between mortality (premature deaths) and daily concentrations of particulate matter in the air. Despite important gaps in scientific knowledge and continued reasons for some skepticism, a comprehensive evaluation of the research findings provides persuasive evidence that exposure to fine particulate air pollution has adverse effects on cardiopulmonary health (Dockery and Pope 2006). ARB has estimated that achieving the ambient air quality standards for PM₁₀ could reduce premature mortality rates by 6,500 cases per year (ARB, 2002).

Nitrogen Dioxide

NO₂ is a reddish brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO₂. Aside from its contribution to ozone formation, nitrogen dioxide can increase the risk of acute and chronic respiratory disease and reduce visibility. NO₂ may be visible as a coloring component of a brown cloud on high pollution days, especially in conjunction with high ozone levels.

Carbon Monoxide (“CO”)

Carbon monoxide, a colorless and odorless gas, is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicles. CO measurements and

modeling were important in the early 1980s when CO levels were regularly exceeded throughout California. In more recent years, CO measurements and modeling have not been a priority in most California air districts due to the retirement of older polluting vehicles, less emissions from new vehicles and improvements in fuels.

Odorous Emissions

Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source, wind speed and direction, and the sensitivity of receptors.

Sensitive Land Uses

Land uses such as schools, children's daycare centers, hospitals, and convalescent homes are considered to be more sensitive than the general public to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality.

Residential areas are considered more sensitive to air quality conditions than commercial and industrial areas, because people generally spend longer periods of time at their residences, resulting in greater exposure to ambient air quality conditions. The nearest sensitive receptors to the proposed project are the closest homes in the Monte Fiore subdivision, approximately 400 feet west of the proposed project site on Silverwood Drive, and the closest homes in the Manana Woods subdivision, about 400 feet north of the site on Miraflores Road and La Cuesta Road at Altenitas Road.

Impacts Analysis

Significance Criteria

According to CEQA Guidelines Appendix G, the project would have a significant effect on air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any nonattainment pollutant (including releasing emissions that exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations;
- Create objectionable odors affecting a substantial number of people;
- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The project would not involve the development of the types of land uses typically associated with odor issues, such as wastewater treatment plants, landfills, composting facilities, refineries and chemical plants. Therefore the following analysis relates to the project's potential to result in a significant air quality impact based on the remaining criteria.

MBUAPCD CEQA Guidelines

MBUAPCD has published the *CEQA Air Quality Guidelines* (MBUAPCD, 2004), which establishes significance criteria for emissions from project-related construction and direct and indirect emissions from project operation. Direct emissions refer to pollutants onsite from equipment or stationary engines. These types of sources are typically found at industrial or manufacturing facilities. Indirect emissions are those related to vehicle traffic attracted to or generated by a project. The recommended emissions thresholds for criteria air pollutants established by MBUACPD are located in **Table 4.H-5**.

**TABLE 4.H-5
AIR QUALITY SIGNIFICANCE THRESHOLDS**

Pollutant	Construction (lbs/day)	Operation (lbs/day)
NOx		137
VOC (ROG)		132
PM ₁₀	82	82
SOx		550
CO		550*

* Direct sources only (on the project site). For vehicular emissions of CO, the threshold requires modeling of CO concentrations where intersection or roadway segment level of service would degrade from LOS D or better to LOS E or F with project's traffic, where existing LOS is E or F and project traffic would cause the volume-to-capacity (V/C) ratio to increase 0.05 or more or delay to increase by 10 seconds or more, or if a project would generate substantial heavy duty truck traffic or generate substantial traffic along urban street canyons or near a major stationary source of CO.

SOURCE: MBUAPCD, 2004

Operations. The proposed project would result in a significant operational air quality impact if either of the following occur:

- Emissions exceed the significance thresholds set forth in Table 4.H-5.
- The proposed project would not be compatible with MBUACPD air quality goals and policies.

Toxic Air Contaminants. The proposed project would result in a significant operational air quality impact if any of the following occur:

- On-site stationary sources emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of ten in one million or an acute or chronic hazard index of 1.0.
- Hazardous materials associated with on-site stationary sources result in an accidental release of air toxic emissions or acutely hazardous materials posing a threat to public health and safety.

Methodology

Construction Impacts

Daily construction emissions were forecast by using default values from the air quality emissions model URBEMIS 2007 version 9.2.4. URBEMIS 2007 output sheets are provided in **Appendix C** of this document.

Operational Impacts

URBEMIS 2007 was also used to estimate the operational emissions of the proposed project. In addition, a SCREEN-3 analysis was conducted to estimate TAC emissions and associated health risk.

Climate Change Impacts

At this time few if any local governments statewide have adopted anything beyond a case-by-case significance criteria for evaluating a project's contribution to climate change. As noted previously, the proposed CEQA Guidelines amendments do not contain any such threshold, and while ARB has proposed thresholds, none has been adopted. Both OPR's 2008 technical advisory and the proposed Guidelines provide a general basis for determining proposed project's contribution of greenhouse gas emissions and the project's contribution to global climate change, using the following approach for analyzing greenhouse gas emissions:

- 1) Identify and quantify the project's greenhouse gas emissions;
- 2) Assess the significance of the impact on climate change; and
- 3) If the impact is found to be significant, identify alternatives and/ or mitigation measures that would reduce the impact to less-than-significant levels.

OPR's technical advisory states that "the most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide." The calculation presented below includes annual CO₂e GHG emissions from increased off-road equipment, vehicular traffic and energy consumption.

For this analysis, the project would be considered to have a significant impact if the project would be in conflict with the AB 32 State goals for reducing greenhouse gas emissions. This assumes that AB 32 will be successful in reducing GHG emissions and reducing the cumulative GHG emissions statewide by 2020. Because no project individually could have a major impact (either

positively or negatively) on the global concentration of GHG, consistency with AB 32 goals is a relevant consideration for the determination of significance with respect to GHG emissions.

Impacts and Mitigation Measures

Discussion

Comparison of the Proposed Project and the 2005 SEIR

Like the 2005 approved project, the proposed project would develop a similar square footage of land in planning area B. The proposed project would construct a 143,000-square foot store on the west side of State Route 17. The proposed project is similar in scope to the 2005 SEIR project in that the prior project was approved to develop a combined total of 148,000 square feet for an office building and fire station. Both projects propose to develop the more level parcel of the area, retaining the upper slopes of the parcel as permanent open space. In addition, both projects propose to develop a similar number of parking spaces, 517 spaces for the proposed project in a two-story parking deck, and 550 spaces for the office building and fire station. The currently proposed project would be constructed on for the parcel on the west side of La Madrona Drive, whereas only the 136,000 square foot office building was proposed for that same lot and the 12,000 square foot fire station was proposed for the lot on the east side of La Madrona Drive. Most importantly, the proposed project would develop a retail store, as opposed to the approved office use.

Changes in Circumstances and Information since the 2005 SEIR

The overall circumstances and conditions for the current proposed retail project have not substantially changed from those that existed when the 2005 SEIR was prepared, with the notable exception that greenhouse gases have become a major issue with respect to air quality. Therefore, this SEIR includes an analysis of GHG emissions that was not included in the 2005 SEIR. Additionally, the 2005 SEIR, while it analyzed effects related to PM₁₀, did not analyze PM_{2.5} impacts, as data on these smaller particles was not then readily available. This SEIR includes PM_{2.5} in its analysis. On the other hand, the area surrounding the project site has not undergone substantial physical changes, (for example, any substantial new development or changes in infrastructure, circulation, public facilities, or natural resources), since preparation of the 2005 SEIR.

Summary of 2005 SEIR Impacts

The 2005 SEIR identified only one potentially significant air quality impact—temporary increases in PM₁₀ emissions resulting from construction. (No other significant impacts were identified.) The 2005 SEIR concluded that construction impacts related to PM₁₀ emissions would be reduced to a less-than-significant level with implementation of Mitigation Measure 8 from the original *Gateway South Specific Plan EIR* of 1994, namely preparation of a construction air pollution control plan to reduce particulate emissions from construction activity. Construction-related PM₁₀ emissions would be above the significance level unless two-times daily watering was done during site grading activities expected to occur during the first three months of construction which would reduce PM₁₀ to less-than-significant levels.

2005 SEIR Mitigation Measure (Mitigation Measure 8 from 1994 Gateway South Specific Plan EIR): Recommended mitigation measures to reduce air quality impacts require project proponents of future development projects to prepare a construction air pollutant control plan to include, but not limited to, the following techniques:

- Sprinkle unpaved construction sites with non-potable water at least twice per day;
- Cover trucks hauling excavated materials with tarpaulins or other effective covers;
- Cease grading activities when winds are greater than 30 mph;
- Cover soils storage piles not to be used within one business week;
- Install wheel washers for all exiting trucks;
- Limit the area under construction;
- Sweep streets serving the construction sites at least once per day;
- Pave and plant as soon as possible;
- Reduce unnecessary idling; and
- Use adhesives, clean-up solvents, paint, and asphalt paving materials with a low ROG content.

Significance after Implementation of 2005 SEIR Mitigation: Less than Significant

Impact AIR-1: Project construction would not violate air quality standards or contribute substantially to an existing or projected air quality violation during the short-term duration of construction. (Significant)

Criteria Air Pollutants

Construction-related emissions would be short-term, but may still cause adverse effects on air quality. Project construction activities would include site preparation, earthmoving, and general construction. Site preparation includes activities such as general land clearing and grubbing. Earthmoving activities include cut-and-fill operations, trenching, soil compaction, and grading. General construction includes adding improvements such as roadway surfaces, structures, and facilities. The emissions generated from these construction activities include dust (including PM₁₀ and PM_{2.5}) primarily from “fugitive” sources (i.e., emissions released through means other than through a stack or tailpipe) such as soil disturbance; combustion emissions of criteria air pollutants (ROG, NO_x, carbon monoxide, carbon dioxide, PM₁₀, and PM_{2.5}) primarily from operation of heavy off-road construction equipment (primarily diesel-operated), portable auxiliary equipment, and construction worker automobile trips (primarily gasoline-operated); and evaporative emissions (ROG) from asphalt paving and architectural coatings.

The MBUAPCD CEQA Guidelines (2008) indicate that PM₁₀ emissions (which constitute nearly two-thirds of construction dust) should be calculated for construction activities, where PM₁₀ emissions could exceed the district’s significance threshold of 82 pounds per day. On the other

hand, calculation of the ozone precursors VOC and NO_x “is not necessary because temporary emissions of these ozone precursors have been accommodated in State- and federally required air plans,” and therefore is unlikely to impede implementation of these plans, which is the underlying basis for the analysis of criteria pollutant emissions.

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM₁₀ and PM_{2.5} concentrations may be adversely affected on a temporary and intermittent basis during construction. In addition, the fugitive dust generated by construction would include not only PM₁₀ (a portion of which is PM_{2.5}), but also larger particles, which would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts.

According to the MBUAPCD CEQA Guidelines, a project involving minimal earthmoving on 8.1 or more acres per day or grading and excavation on 2.2 or more acres per day is likely to exceed the district’s significance threshold for construction of 82 pounds per day of PM₁₀, and would therefore require further analysis to determine whether the impact would be significant. The project site is approximately 17.6 acres in size. However, as described in Chapter 3, Project Description, the steeper western portion of the site would not be developed as part of the project but would instead be left in its undisturbed state. The project would require grading over approximately 9.4 acres of the site. Assuming conservatively that grading could be under way on the entire 9.4 acres during at least some portion of construction, the project would generate up to about 190 pounds per day of PM₁₀, absent any mitigation, and estimated based on default crew, truck trip, and equipment usage, using the URBEMIS 2007 emissions analysis program. Therefore, because emissions of PM₁₀ could potentially exceed the MBUAPCD threshold for construction, the project would potentially result in a significant impact with respect to construction.²

The results of this analysis indicate that project construction would generate up to 37 pounds of PM₁₀ daily, which would not exceed the MBUAPCD threshold of 82 pounds per day.

Mitigation Measure AIR-1a: Implement 2005 SEIR Mitigation Measure (1994 EIR Mitigation Measure 8), as modified in this SEIR.

The project sponsor shall prepare a Construction Air Pollutant Control Plan and submit the Plan to the MBUAPCD for review, along with a grading plan showing the area to be disturbed, a description of the equipment proposed to be used during grading, and pollution control measures to be employed. The Plan shall incorporate Best Available Control Technology for Construction Equipment (CBACT), including, but not limited to, the following:

- Sprinkle unpaved construction sites with non-potable water at least twice per day;

² Using the URBEMIS default assumption that only one-fourth of the site would undergo grading on any given day, PM₁₀ emissions would be only about half than the 82 pounds per day threshold.

- Cover trucks hauling excavated materials with tarpaulins or other effective covers or shall maintain two feet of freeboard in accordance with California Vehicle Code Section 23114;
- Cease grading activities when winds are greater than 30 mph;
- Cover soils storage piles not to be used within one business week. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast-germinating native grass seed and watered until vegetation is established;
- Install wheel washers for all exiting trucks;
- Vehicle speed for all construction vehicles shall not exceed 15 mph on unpaved areas;
- Limit the area under construction;
- Sweep streets serving the construction sites at least once per day;
- Pave and plant as soon as possible;
- Properly maintain all construction equipment and portable engines and tuned such equipment to manufacturer's specifications;
- Ensure that off-road and portable diesel powered equipment is fueled exclusively with ARB-approved vehicle diesel fuel;
- Reduce unnecessary idling; and
- Use adhesives, clean-up solvents, paint, and asphalt paving materials with a low ROG content.

Mitigation Measure AIR-1b: The project sponsor shall ensure that the contractor designates a person or persons to monitor the dust control program and to order increased watering as necessary to prevent transport of dust off-site. The monitor(s) shall be available to the public via a posted telephone number at the construction site, including on holiday and weekend periods when work may not be in progress.

Toxic Air Contaminants

The greatest potential for TAC emissions would be related to diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. Health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. A SCREEN-3 analysis found that the proposed project would not result in a long-term (i.e., 70 years) substantial source of TAC emissions, because construction is a short-term activity by nature. The cancer risk was found to be 0.000004 in a million. As such, project-related toxic emission impacts during construction would be less-than-significant.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: No New Impact, but New or Updated Mitigation Measure Identified

Impact AIR-2: Project operation would violate air quality standards or contribute substantially to an existing or projected air quality violation during long-term operation. (Less than Significant)

Operational emissions for the proposed project would be generated primarily from on-road vehicular traffic, as well as from area sources (such as building heating and landscaping equipment) Operational emissions for mobile and area sources are based on emission factors from URBEMIS 2007. The results of this analysis are summarized in **Table 4.H-6**.

**TABLE 4.H-6
ESTIMATED WORST CASE DAY UNMITIGATED EMISSIONS FROM PROJECT OPERATION
(pounds per day)^a**

Project Data	ROG	NOx	CO	PM ₁₀	PM _{2.5}	CO ₂
Area Sources	1	2	3	<1	<1	1,801
Mobile Sources	64	76	679	70	14	37,729
Total	65	78	682	70	14	39,530
MBUAPCD Thresholds of Significance	137	137	550	82	NA	NA
Significant (Yes or No)?	No	No	No ^b	No	No	No

^a Project emissions estimates were made using URBEMIS2007. See Appendix AQ for more details.

^b Indirect (off-site) emissions would make up most of the total, and thus the threshold is not exceeded; see concentration modeling below.

SOURCE: ESA, 2009

As shown in Table 4.H-6, emissions would be below MBUAPCD thresholds. For carbon monoxide, direct (on-site) emissions would be below the threshold, which only applies to direct emissions. However, the MBUAPCD CEQA guidance calls for dispersion modeling at intersections that would be adversely affected by project traffic to a degree that CO concentrations could exceed state or federal standards. Accordingly, the CALINE 4 dispersion model was used to quantify CO concentrations. The modeling method included background CO concentration levels determined by CARB (CARB 2009b), and traffic projections prepared for the project at the most substantially affected local intersections and roadways in the project vicinity. As these were the locations most affected by project-related traffic and/or with sensitive receptors, it was assumed that if carbon monoxide concentrations at these three areas would not exceed the ambient air quality standards, the project’s contribution to impacts at other intersections would also be less-than-significant.

As shown in **Table 4.H-7**, the analysis demonstrated that no violations of the CO standard would occur at the receptor locations near the roadway segments modeled. Project traffic would have a less-than-significant-effect upon CO concentrations in the area.

**TABLE 4.H-7
ESTIMATED CARBON MONOXIDE CONCENTRATIONS**

Receptor Location	Concentrations (ppm) ^a					
	State Standard	Existing	Existing + Project	Cumulative	Cumulative + Project	
Mt. Hermon Rd./ Scotts Valley Drive	1-hr.	20	3.3	3.4	2.9	2.9
	8-hr.	9	2.6	2.6	2.2	2.2
Mt. Hermon Road / La Madrona Drive – SR 17 SB Off-Ramp	1-hr.	20	3.8	3.8	3.2	3.2
	8-hr.	9	3.0	3.1	2.5	2.5
La Madrona Drive / Altenitas Road	1-hr.	20	3.0	3.0	2.5	2.5
	8-hr.	9	2.2	2.2	2.0	2.0

NOTE: The carbon monoxide analysis focuses on the weekday evening (p.m. peak-hour). Carbon monoxide estimates shown above include background year 2008 concentrations of 1.3 ppm.

SOURCE: ESA 2009

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Cumulative Impacts

Impact AIR-3: The project would not conflict with implementation of state goals for reducing greenhouse gas emissions and therefore would not result in a significant impact with respect to GHG emissions or climate change. (Less than Significant)

The California Energy Commission (CEC) estimated that in 2004 California produced 500 million gross metric tons (about 550 million U.S. tons) of carbon dioxide-equivalent GHG emissions.³ The CEC found that transportation is the source of 38 percent of the State’s GHG emissions, followed by electricity generation (both in-state and out-of-state) at 23 percent and industrial sources at 13 percent (CEC, 2006).

Greenhouse gas impacts are considered to be cumulative impacts; there are no non-cumulative greenhouse gas emission impacts from a climate change perspective (CAPCOA, 2008). Four types of analyses are used to determine whether the project could be in conflict with the state goals for reducing greenhouse gas emissions. The analyses are as follows:

- A. Any potential conflicts with ARB’s thirty-nine (39) recommended actions in California’s AB 32 Climate Change Scoping Plan.

³ Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in “carbon dioxide-equivalents,” which present a weighted average based on each gas’s heat absorption (or “global warming”) potential.

- B. The relative size of the project. The project's greenhouse gas emissions will be compared to the size of major facilities that are required to report greenhouse gas emissions (25,000 metric tons/year of CO₂e)⁴ to the state; and the project size will be compared to the estimated greenhouse reduction state goal of 169 million metric tons per year of CO₂e emissions by 2020. In reaching its goals ARB will focus upon the largest emitters of greenhouse gas emissions.
- C. The basic energy efficiency parameters of a project to determine whether its design is inherently energy efficient.
- D. Any potential conflicts with applicable City or County plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases.

With regard to Item A, the project does not pose any apparent direct conflict with ARB thirty-nine recommended actions (see Table 4.H-3, p. 4-H-7). As can be seen in the table, many of the measures—such as implementation of increased fuel efficiency for vehicles (the “Pavley” standards), increased efficiency in utility operations, and development of more renewable energy sources—require statewide action by government, industry, or both. Some of the measures are at least partially applicable to development projects, such as increasing energy efficiency in new construction, installation of solar panels on individual building roofs, and a “green building” strategy—although, arguably, some of these measures could require government action, such as strengthening of building codes, to realize meaningful reductions in GHG emissions. At the same time, the project as proposed does not include any measures specifically aimed at reducing GHG emissions below what would be anticipated from a typical commercial development project. Such measures could include buildings that exceed Title 24 (state building code) energy efficiency requirements, installation of solar panels and/or “cool roofs,” reduced parking, use of drought-resistant landscaping and plantings that reduce interior solar heating, aggressive recycling programs, and green building practices.

Chapter 17.51 of the City's Zoning Ordinance sets forth Green Building Regulations. The regulation requires persons constructing a new building, adding to or substantially remodeling a building in the City of Scotts Valley to participate in the S Green Building Program, which is enforced through building permits. The following documents outline the City's Green Building Regulations:

- City of Scotts Valley: Standards for Green Building Compliance
- New Home Green Points Check List for Residential Buildings
- New Building Green Points Check List for Non-Residential Buildings

In addition the following sustainable features are included in the construction and operation of all Target store projects per the Corporate Responsibility Reports:

⁴ As noted above, the 25,000 metric ton annual limit identifies the large stationary point sources in California that make up approximately 94 percent of the stationary emissions.

Site and Water

- Soil erosion from construction activity is managed by use of silt fence and other erosion control measures.
- Heat island effect is minimized by use of highly reflective white roof membranes to reduce cooling load.
- High efficiency plumbing fixtures are used in restrooms to cut municipal water use by at least 30 percent.

Energy Efficiency

- High energy efficiency rooftop heating and air conditioning equipment are used.
- Verification of electrical systems is utilized, and measurement and operating practices put in place to insure ongoing efficiencies and accountability of energy management over time.

Materials and Resources

- Construction waste is managed in order to recycle and divert from the waste stream at least 75 percent of all construction refuse where local markets allow.
- Construction materials contain a minimum of 10 percent recycled content for the overall project as the local market allows, potentially consisting of the following: 50 percent minimum recycled content in all structural steel framing, 20 percent in joists and joist girders; fly ash in concrete if locally available, and crushed concrete sub-base in parking lot and recycled bituminous paving for drive surfaces if the project allows.
- Regional materials are utilized to the extent possible with locally manufactured products made from locally extracted raw (or re-cycled) materials.
- Wood from Forest Stewardship Council certified sources is used for all blocking, framing and sheathing.

Indoor Air Quality

- The store building is a tobacco-free environment.
- During construction an Indoor Air Quality (IAQ) management plan is utilized to protect the workers.
- Volatile Organic Compounds are minimized within the finished space by the use of low-VOC materials for all carpets, flooring, adhesives, sealants, paints and coatings, ceilings and wall systems.

Additional Sustainable Measures

- T-8 light fixtures with low mercury bulbs will be used throughout the store.
- Site lighting fixtures are “dark sky” compliant with full “cut-off” features to prevent light spill to adjoining property.

- All Target stores participate in an extensive program to recycle solid waste. On average each store recycles per year:
 - 12,000 pounds of cardboard, in addition to shrink wrap and food waste
 - 268,000 garment hangers
 - 322,000 pounds of paper materials
 - Ceiling tiles, carpet, and roofing materials are recycled when replaced.

With regard to Item B, project construction greenhouse gas emissions would be approximately 247 metric tons/year of CO₂e and project operations would be approximately 7,693 metric tons/year of CO₂e (including emissions from vehicle trips, space heating and indirect emissions from the use of electricity). The project would not be classified as a major source of greenhouse gas emissions (operational emissions would be about 31 percent of the lower reporting limit for stationary sources, which is 25,000 metric tons/year of CO₂e). When compared to the overall State reduction goal of approximately 169 million metric tons/year of CO₂e, the maximum greenhouse gas emissions for the project (7,693 metric tons/year of CO₂e or 0.005 percent of the State goal) are insubstantial and would not hinder the State's ability to meet the AB 32 goals.

With regard to Item C, the location of the project would provide the residents of Scotts Valley and the surrounding area an additional source of new temporary employment opportunities in the construction trades and short-term/permanent employment opportunities in retail and service jobs. Furthermore, the project would reduce the trip length of local customers which would lessen the amount of exhaust emitted. It is noted that the calculations under Item B assume that all trips to and from the proposed project would be new trips; that is, they would not substitute for other trips currently made. This is consistent with the conservative approach to project-specific transportation analysis. However, in reality, some trips to and from the proposed project would likely be made in lieu of trips currently made to other destinations, which could, in some instances, be longer than replacement trips. Thus, the operational emissions noted above could be overstated, although it would be speculative to project the degree of the potential overestimation.

Finally, with regard to Item D, the City of Scotts Valley and Santa Cruz County have not established greenhouse gas reduction plans or policies. Therefore, the project would not conflict with any local regulations pertaining to greenhouse gases.

The review of Items A, B, C, and D indicate that the project would not conflict with the State goals in AB 32 and therefore this impact would be less-than-significant.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Impact AIR-4: The proposed project together with anticipated future development in the area could result in long-term traffic increases and could cumulatively increase regional and localized air pollutant emissions and conflict with goals of the MBUAPCD. (Less than Significant)

Cumulative impacts can result from individually minor but collectively significant impacts, meaning that the project's incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. Any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact.

The CALINE 4 dispersion model was also used to quantify cumulative CO concentrations at sensitive receptors in order to determine if these projected emissions would result in a significant impact. As shown in Table 4.H-7, the analysis demonstrated that no violations of the CO standard would occur at the receptor locations near the roadway segments modeled. Project traffic would have a less-than-significant-effect upon cumulative CO concentrations in the area.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

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I. Public Services and Recreation

This section describes existing public services in the project vicinity. It also evaluates the potential impact of the project on the delivery of public services, and possible adverse physical impacts on the environment that could result from a need to provide new or physically altered facilities. As necessary, appropriate mitigation measures are identified. The analysis reviews police services, fire protection and emergency medical response, public schools, and parks and recreational facilities.

Setting

Fire Protection and Emergency Medical Services

Facilities and Staffing

The Scotts Valley Fire District (SVFD) provides emergency response to all fires, medical calls and vehicle accidents for both the City of Scotts Valley and the surrounding unincorporated areas. The SVFD is an autonomous special district, with all funding generated from the area's property taxes. SVFD serves approximately 19,000 people in a 22-square-mile area. The City of Scotts Valley lies within the district boundaries representing 4.5 square miles of the total area served and about 60 percent of the SVFD's service area population. The fire district boundaries run from the Santa Cruz city limits on the south to just beyond Laurel Road along upper State Route 17 on the north; from east of State Route 17 to west of Lockhart Gulch Road. SVFD has a mutual aid agreement with all the surrounding County fire districts including but not limited to the Santa Cruz City Fire Department; the Central Fire, Aptos Fire, Felton Fire, and Zayante Fire districts; and Cal Fire, the state's firefighting agency.

The SVFD operates two fire stations (both within the Scotts Valley city limits) and has approximately 24 line firefighting personnel, as well as additional on-call firefighters paid by the call. Headquarters, Station One, is located at 7 Erba Lane, 1.1 miles north of the project site. Station Two is located on Glenwood Drive (next to San Agustin Catholic Church) 2.7 miles north of the project site. The district currently operates two engines (plus a third in relief), a wildland engine, a 2,500-gallon water tender, and a hazardous materials response truck, along with two command units and other support equipment.

Service Demand

The Fire District responded to approximately 1,564 district wide calls in fiscal year 2007. The majority of these calls (approximately 58 percent of the total area calls) pertained to medical emergencies, and about five percent of total area calls pertained to fires. The Fire District's response time goal is five minutes or less of notification. Response time is measured from the time a call is received in the Fire Dispatch Center until the time the first unit arrives on the scene of the emergency.

Police

Facilities and Staffing

The Scotts Valley Police Department (SVPD), headquartered at One Civic Drive in Scotts Valley, approximately 1.3 miles from the project site, provides uniformed law enforcement services to Scotts Valley. The major goals of the Department are to reduce crime through prevention, detection and apprehension; to provide the orderly and safe movement of vehicular traffic through law enforcement, accident prevention and accident investigation; to insure public safety through regulation and control of hazardous conditions; the recovery, return of lost and stolen property and to provide non-enforcement services through programs reflecting community needs and desires.

As of the end of 2007, the Police Department had 20 sworn officers and approximately eight civilian employees. The current ratio of police officers per 1,000 residents is approximately 1.7, based on the city's 2008 estimated population of about 11,700 (California Department of Finance, 2008). To keep pace with the projected population of 15,000 residents at buildout year 2015, according to the City's general plan. In 1994, the Scotts Valley General Plan found that, to keep pace with the projected population of 15,000 residents, the Police Department would need to increase staff from 28 employees to 37 employees, an increase of nine employees over the then-existing staff total (Scotts Valley, 1994).

Service Demand

All emergency (911) and non-emergency calls for police services are received through SVPD's communication center, located at One Civic Drive in Scotts Valley. Calls for fire protection and emergency medical response are transferred to the Santa Cruz County Consolidated Dispatch Center in the City of Santa Cruz for dispatching to the appropriate county agency. The department ranks incoming calls for police services as follows: Code 3 for calls involving a threat of injury/death or a serious crime in progress; Code 2 for calls that are of not serious nature but where immediate response is needed; and Code 1 for calls involving non-threatening, informational reports. SVPD's response time goal is three minutes or less for Code 3 service calls. In 2007, the average response time for Code 3 emergency calls for service was 2 minutes, 53 seconds. In 2005 and 2006, SVPD's average response time exceeded the three minute goal for emergency calls. This was attributed to the reduced staffing levels in patrol during those years. In 2007, the average response time for Code 2 service calls was 13 minutes, 0 seconds; while the average response time for Code 1 service calls was 21 minutes, 12 seconds. Response times generally reflect the perceived seriousness of the call.

The Scotts Valley Police Department handled 17,499 calls for service in 2007, approximately 19 percent more calls than were handled in 2006 (14,684 calls). Compared to statistics from previous years, Part I Crimes (murder, rape, robbery, assault, burglary, theft motor vehicle theft and arson) decreased 16 percent in 2007, while Part II Crimes (all other crimes not included in Part I) remained virtually unchanged during the same time period, increasing only by one percent. Miscellaneous activity, defined as non-crime related police activities such as responding to burglar alarms, responding to arguments, house checks, barking dogs, increased by 21 percent.

This increase is mostly attributed to the proactive enforcement of the additional officers patrolling the streets. In 2007, with approximately 18 officers, each officer responded to approximately 1,000 calls. This ratio is unchanged compared with 1993 levels.

Compared to crime statistics from 2002, the total calls for service remained virtually unchanged, increasing by less than one percent. However, when comparing 2002 and 2007 crime statistics, both the total number of Part I Crimes and Part II Crimes have decreased, 18 percent and 15 percent, respectively. The City of Scotts Valley has the lowest crime rate compared with other Cities in Santa Cruz County such as the Cities of Capitola, Watsonville, and Santa Cruz (Weiss, 2008).

**TABLE 4.I-1
 SCOTTS VALLEY CRIME STATISTICS: 2002 & 2007**

Year	2002	2007
Description		
<i>Part I Crimes</i>		
Homicides	0	0
Rape	1	2
Robbery	1	1
Assault	109	76
Burglary	45	52
Larceny	260	211
Auto theft	12	6
Arson	2	3
Total part I crimes	430	351
Total part II crimes	907	773
Miscellaneous activity	16,042	16,375
Total calls for service	17,379	17,499
Total citations	2,103	2,464
Number of arrests	579	594
Injury accident	36	37
Non injury accidents	93	119
Hit & run	32	36
Total accidents	259	192
Domestic disturbances (2002) Domestic violence (2007)	128	34
Vandalism/graffiti	178	128
Drug violations	118	96
SOURCE: Weiss, May 2008		

Public Schools

School Facilities and Attendance

The Scotts Valley Union School District (SVUSD) operates the public school system within Scotts Valley city limits. The SVUSD administers two elementary schools, Vine Hill School and Brook Knoll School, the Scotts Valley Middle School, and the Scotts Valley High School. Total school enrollment for elementary and secondary students for the 2007/2008 academic year was 2,645, showing a decline in enrollment from 2,718 students in 2006/2007 and 2,771 students in 2005/2006, and representing a decrease of 4.5 percent in enrollment during this three year period (California Department of Education, 2008).

Since the analysis of potential impacts on public schools is based on the estimated number of students who reside in Scotts Valley, it is worth noting there are students that reside in Scotts Valley who attend private schools. On a statewide basis, an estimated 11 percent of all Kindergarten through grade 12 students attend private schools. Baymonte Christian School in Scotts Valley, which has a 500 student capacity, offers classes from preschool level to grade twelve and anticipates an enrollment of approximately 430 students for school year 2008/2009.

Parks and Recreational Facilities

The City of Scotts Valley Park and Recreation Department manages the City's parks and recreation centers within the city boundaries. Scotts Valley owns and maintains a total of eight parks/facilities. The City of Scotts Valley Park and Recreation Department manages a number of smaller parks and facilities within a one mile radius of the proposed project including the Senior Center, Camp Evers, and Hocus Pocus Park. The Senior Center, approximately 0.8 miles from the project site, is located off Kings Village Road. Approximately half the site is developed with a 4,160 square foot senior center. Camp Evers, approximately 0.7 miles from the project site, is located off Glen Canyon on one-half acre. The park has a bicycle rest stop and fishing park that includes a picnic area, fishing landing, and restrooms. Hocus Pocus Park, approximately 0.8 miles from the project site, is a one acre parcel on the corner of Whispering pines and Lundy Lane that includes play structures, basketball courts, swings, restrooms and BBQ area.

The City manages five other parks including MacDorsa Park, Skypark, the community center, Siltanen Park, and Shugart Park. MacDorsa Park, approximately 1.2 miles from the project site, is a 5 acre park that is part of a 7.6 acre site including City Hall. Skypark, the largest site with 24.5 acres of active parklands, is located in the southern portion of the City, approximately 1.2 miles from the project site. Adjacent to Skypark is the newly converted community center that sits on two acres of open space. Siltanen Park, the second largest community park, is located at the north end of the City adjacent to the Vine Hill School, approximately 2.7 miles from the project site. Adjacent to Siltanen Park, the City has recently completed a conceptual design for Shugart Park, which will be approximately 7.5 acres in size at completion.

Regulatory Framework

Local Plans and Policies

The sections of the *General Plan* that relate to public services and recreation are the Public Services and Facilities, Parks and Recreation, and Land use chapters. The policies and actions that apply to the current project are listed below.

- PSG-522* To support the provision of police and fire services at levels adequate for the protection of life and property.
- PSA-529* The police department will strive to maintain a maximum 3 minute response time to a “Code 3” emergency within the city, 24 hours a day.
- PSO-532* Ensure that police and fire services are available to serve development in the City.
- PSP-533* The City shall require that all new development proposals and/or changes in land use be referred to the police department for law enforcement evaluation and to the fire department for evaluation of fire and life safety issues.
- PSA-534* As a part of standard permit and land use change processing, the planning department will continue to refer proposals to the police and fire chiefs for review and comment prior to preparation of the city staff report.
- PSP-546* The City shall encourage school administrations to enable non-school hour use of their facilities by the public through updating and maintenance of the Joint Facilities Use Agreement.
- PSA-547* The City Council should establish a cooperative program between the school districts and the City. Special emphasis should be given to a cooperative effort between the Parks and Recreation Commission and the school districts to provide the recreational needs of the City’s residents.
- PRG-602* To provide adequate park and recreation facilities to serve the recreational needs of the city.
- PRO-603* Develop and adequately maintain a comprehensive park and recreation system for a population of 15,000 residents.
- PRA-612* Amend City Code to require commercial and industrial development to provide open space/recreation facilities within the project. In the alternative, require dedication of land or in-lieu fees for park and recreation amenities.
- PRA-617* All commercial and industrial development shall provide recreational facilities on-site or contribute money to enhance the City’s park and recreation system.
- PRP-618* The City shall encourage schools to make recreational areas and facilities available for use during non-school hours.

- PRA-619* As part of the implementation of the Parks Master Plan, the City shall coordinate and establish joint use agreements with local schools to determine when and under what conditions school facilities can be used by the public. This information shall be made available to the public as a part of the City's comprehensive open space/park and recreation program.
- PRG-647* To provide adequate recreation programs to serve the needs of Scotts Valley
- PRO-648* Develop and maintain a recreation program for residents and employees within the City.
- PRA-651* The Parks and Recreation Commission shall survey the commercial and industrial employees of the City to assess their perceived needs for City recreation facilities.
- LP-25* The City shall prohibit new land use activities within and in close proximity to residential zones that generate undesirable impacts which cannot be mitigated.
- LA-26* Through the environmental and permit review process, the City shall identify projects which could impact residential zones in a negative manner, and if such impacts cannot be mitigated, the City shall deny the project.
- LA-41* During the environmental review process, identify potential impacts that commercial developments will have on other community land uses. Require mitigation of such impacts.
- LA-76* During the environmental review process, the City shall identify potential open space and recreation resource demands created by new commercial and industrial developments and require such developments to provide on-site space and/or landscaped areas to satisfy demand. This shall be accomplished through the site planning and designed methods, such as clustering, building coverage limitations, providing landscaped areas, or any other method deemed appropriate by the City. All on-site open space areas shall be maintained by the landowner. As an alternative to providing on-site open space and recreation, the development may participate with adjacent or neighboring developments to create a common-use recreation area.

Impacts Analysis

Significance Criteria

Based on Appendix G of the *CEQA Guidelines*, the project would have a significant public service impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives for any of the following public services:

- Fire protection;
- Police protection;

- Schools;
- Parks; and
- Other public facilities.

Methodology

The project was evaluated for its potential to create additional service demand in the areas of police protection, fire suppression services, student generation, and parks and recreation. The proposed project would have a significant public service impact if the additional service demand requires the provision of new or physically altered governmental facilities which could cause significant environmental impacts.

Emergency vehicle access to the project site is discussed in Section 4.A, *Transportation and Circulation*.

Impacts and Mitigation Measures

Comparison of the Proposed Project and the 2005 SEIR

Like the 2005 approved project, the proposed project would entail non-residential development in Planning Area B. The proposed project would construct a 143,000-square foot retail store on the project site. The proposed project would be similar in building floor area to the approved project which included a combined total of 148,000 square feet for an office building and fire station. Both projects propose to develop the more level parcel of the area, retaining the upper slopes of the parcel as permanent open space. In addition, both projects propose to develop a similar number of parking spaces, 517 spaces for the retail store in a two level parking deck, and 550 spaces for the office building and fire station. The proposed project would be built on the parcel on the west side of La Madrona Drive, while only the 136,000 square foot office building was proposed for that same parcel 2005 and the 12,000 square foot fire station was proposed for the “tear-drop” parcel on the east side of La Madrona Drive.¹ Moreover, the proposed project would develop a retail store, as opposed to the approved office use.

Changes in Circumstances and Information since the 2005 SEIR

As reported in Chapter 1, *Introduction*, the overall circumstances and conditions for the current proposed retail project have not changed substantially, with respect to public services and recreation, from those that existed when the 2005 SEIR was prepared. In the case of the Scotts Valley Fire District and the Scotts Valley Police Department, there have not been any changes to the number of staff employed within the SVFD or SVPD or any changes to the physical facilities since 2005. Moreover, the Scotts Valley Unified School District still operates the same four schools as it did in 2005, although the student enrollment has decreased slightly over the past several years. Since 2005, the Park and Recreation Department has expanded its park facilities to include the new community center adjacent to SkyPark and opened the bacci ball courts and dog park in SkyPark.

¹ The fire station remains an approved use.

Summary of 2005 SEIR Impacts

The Initial Study prepared for the 2005 SEIR analyzed the project's impacts on public services and concluded that development of the office building and fire station would have a less-than-significant impact on fire and police services. Therefore, it was not discussed any further in the SEIR. Both project sites were served by the Scotts Valley Fire District for fire service and the Scotts Valley Police Department for police protection. The Initial Study concluded that the proposed fire station would allow for greater citywide response, alleviating the pressure for existing fire stations to expand at their current locations.

The project proposed in 2005 did not include any housing and was not considered a growth-inducing project. not include residential development. Therefore, the Initial Study concluded that the 2005 project would have a less-than-significant impact on the school system and park and recreational facilities. Since the proposed project had no impact or a less-than-significant impact on the school system, park system, and fire and police services, there were no mitigation measures identifies it the 2005 SEIR.

Approach to the 2005 SEIR Analysis of Public Services and Recreation

The Initial Study for the 2005 SEIR concluded that development of the office building and fire station would have a less-than-significant impact on fire, police services, and recreation and therefore was not discussed any further in the SEIR.

Police Services

Impact PS-1: The increased daytime population resulting from the project would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for police protection services, but would result in increased demand for police services. (Significant)

The proposed project would develop the site and substantially increase the daytime population² at and trips to the project area. The additional daytime population, traffic and trips to the area could result in an increase in reported crimes. Increases in the number of reported crimes could lead to an increase in response times. However, given the number of new daytime trips to the project area, the Police Department does not anticipate a substantial change in the number of service calls nor the need for any new physical facilities, since, in general, minimal police service is typically required for a retail store (Weiss, 2008). The project site would be served by police personnel who work at police headquarters, approximately 1.3 miles from the project site. The proposed project would also have its own security personal to monitor the activities on the premises.

Any potential delay in response times would not require the construction of new or physically altered facilities in order to maintain acceptable response times or other performance objective

² Although the proposed store would be open in the evening hours, the term "daytime population" is used to indicate employment- and shopping-generated population, as opposed to permanent residential population.

(Weiss, 2008). Therefore the potential delay in response time that may occur as a result of the proposed project would not be significant.

Site design plays a critical role in crime prevention. The proposed project site plan, with **Mitigation Measure PS-1**, would include the preventive design measures to aid in crime prevention on the project site. Preventive design measures include appropriate exterior building materials (e.g., anti-graffiti materials at the ground levels), landscaping, lighting, adequate circulation, and security alarms and door locks.

Mitigation Measure PS-1: The project sponsor shall provide the Scotts Valley Police Department with a site plan and shall incorporate any safety/prevention design measures recommendations into the final project design.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: New Impact, but Less than Significant with Mitigation

Fire Protection and Emergency Medical Services

Impact PS-2: The increased daytime population resulting from the proposed project would increase demand for fire protection and emergency medical services, but would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for fire protection and emergency medical services and facilities. (Less than Significant)

The project site is within the response boundaries of both the Erba Lane and the Glenwood Drive fire stations. The proposed project would increase the daytime population at and trips to the project area. The estimated 200 – 250 employees (50 – 70 employees in any given shift) and store customers would be expected to increase the number of calls for fire and emergency service. However, the Scotts Valley Fire District has indicated that it would be able to provide adequate fire suppression and emergency medical response services to the project site with existing staff, and that the project would not require the development of new or physically altered facilities (McMurray, 2008).

In accordance with the California State Fire Code, the Fire Department would require that fire prevention measures, such as automatic sprinklers, smoke detectors, fire alarm systems, and fire resistant construction, be incorporated into final project plans for the building. All appropriate building and fire code requirements would be incorporated into project construction. The Fire Department would review the project, including provisions for onsite access, exits, and any necessary special equipment to assist firefighters on-site. The project applicant would be required to incorporate the Fire Department's recommendations into the final project. In light of the foregoing, effects related to fire protection and emergency medical services would be less than significant.

Should the Fire District construct the fire station previously approved across La Madrona Drive from the project site (on the so-called “tear-drop parcel”), the proposed project has the potential to increase the Fire District’s response time to emergencies from this station, beyond what would otherwise be the case. The tear-drop parcel is currently owned by the District, which intends to construct a new fire station on this parcel if funding can be secured. If the fire station is developed, the increase in traffic due to the proposed project could obstruct and delay emergency vehicles. However, based on the transportation analysis completed for the project, queues of vehicles on La Madrona Drive would not be anticipated to adversely affect circulation by fire engines or other emergency vehicles (see Section 4.A, *Transportation and Circulation*). Therefore, effects related to emergency vehicle access would be less than significant.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Public Schools

Impact PS-3: Any increase in students indirectly generated by the proposed project would not require new or physically altered school facilities in order to maintain acceptable service ratios or other performance objectives at local public schools. (Less than Significant)

The project proposes to provide employment for approximately 200 – 250 employees, which has the potential to indirectly increase the number of residents in Scotts Valley and, thus, increase the number of school age children attending SVUSD schools. However, it is anticipated that most employees would either be current residents of Scotts Valley or would commute to Scotts Valley from other areas within Santa Cruz County and possibly beyond, rather than relocating to Scotts Valley. This is because the retail jobs that would be created by the project do not typically provide wages high enough to induce relocation. Therefore, the project is unlikely to increase the number of school age children in Scotts Valley beyond a negligible contribution that would be unlikely to require any changes to the school facilities.

Also, pursuant to Senate Bill 50 (SB 50), the project sponsor would be required to pay school impact fees established to offset potential impacts on school facilities. Therefore, although the project is unlikely to result in substantial additional students within SVUSD facilities, payment of the fees mandated under SB 50 is the mitigation measure prescribed by the statute, and payment of the fees is deemed full and complete mitigation. Therefore, no mitigation is required.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Parks and Recreation

Impact PS-4: The project would not result in increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of these facilities would occur or be accelerated, nor would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. (Less than Significant)

The project would increase the daytime population at the site and therefore could incrementally increase the use of existing neighborhood and regional parks or other recreational facilities. However, neither store employees (unless residents of Scotts Valley) nor shoppers (unless city residents) are likely to spend much time at city parks, since patrons of the proposed project and employees would most likely only come to Scotts Valley to shop and work. In addition, given the fact that the City of Scotts Valley currently offers the equivalent of 7.8 acres of active parkland per 1,000 residents, the park and recreation system is in a position to absorb increases in park usage without the need to construct or expand existing facilities. Thus, the project would not require the construction or expansion of additional recreational facilities.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

Cumulative Impacts

Impact PS-5: Development of the proposed project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts to the provision of public services. (Less than Significant)

The proposed project, in conjunction with reasonably foreseeable future projects (see **Appendix G**), could result in a cumulative increase in the demand for police protection, fire protection and emergency medical service, schools, park and recreational facilities. The proposed project would be located in an area already served by local public services providers, which all meet the response time goals and standards to the project site. The development of the proposed project would contribute incrementally to any increased demand for public services and, based on the foregoing analysis, the project's contribution would not represent a considerable share of any increase in such demand.

Furthermore, the proposed project would be required to comply with all fire codes standards, contribute their fair-share in student impact fees, and provide publically accessible open spaces, as would any future projects. Therefore, the cumulative effect of the proposed project on public services provision would be less than significant.

Mitigation: None required

Comparison to 2005 SEIR Findings: No New Impact or Changes

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J. Other Topics

This section discusses the potential effects of environmental topics previously determined in the Initial Study to have less-than-significant impacts. This section also presents an analysis of potential impacts related to Urban Decay, based on the findings of a fiscal and economic analysis of the proposed project, prepared for the City under separate contract.

Affected Topics Previously Discussed in the Initial Study

The Initial Study prepared for the 2005 SEIR project identified that the proposed project would result in less-than-significant impacts, or significant but mitigable (to less-than-significant) impacts for several topics, and therefore, those topics (or specific criteria within those topics), were not analyzed further in this SEIR. **Table 2-1**, Summary Table of Impacts, Mitigation Measures, and Residual Effects, in this SEIR presents the complete list of previously analyzed topics (with full impact statement, and if applicable, mitigation measure), and these topics are also summarized in Chapter 6, *Overview and Growth Inducing Impacts*, in this SEIR.

The following discusses only the previously-analyzed topics analyzed in the Initial Study (but not discussed elsewhere in this SEIR) upon which the new proposed project may have an effect.

Agricultural Resources

The California Department of Conservation's Farmland Mapping and Monitoring Program identifies the project site as *Urban and Built-Up Land*, which is defined as "...land [that] is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes" (California Department of Conservation, 2008). Additionally, the site is not designated in either the Scott's Valley General Plan or the city's Zoning Ordinance as agricultural. Because the site does not contain agricultural uses and is not zoned for such uses, the project would not convert any prime farmland, unique farmland, or Farmland of Statewide Importance to non-agricultural use. Furthermore, the project would not conflict with existing zoning for agricultural land use or a Williamson Act contract, nor would it involve any changes to the environment that could result in the conversion of farmland.

Timberland production is the only form of agriculture designated on the General Plan Land Use map and it occurs in two areas, both just outside city limits. The project would therefore have no impact on farmland or agricultural resources.

Comparison to 2005 SEIR Findings: No New Impact or Changes

Cultural Resources

The project area has been surveyed by an archaeologist and no cultural resources have been recorded. Sensitivity for prehistoric archaeological materials is low. Additionally, based on a review of maps and existing documents sensitivity for historic-period archaeological materials is low. No recorded historic-period buildings, structures, or objects are located within the project area.

A records search was conducted for Gateway South Target EIR in Scotts Valley, Santa Cruz County at the Northwest Information Center (NWIC) of the California Historical Resources Information System on March 24, 2008 (File No. 07-1362) by Heidi Koenig, Registered Professional Archaeologist with ESA. The records search consisted of an examination of the following documents:

- NWIC base maps (USGS 7.5-minute Felton topographic map), to identify recorded archaeological sites and surveys within a 1/2-mile radius of the above-referenced location.
- NWIC base maps (USGS 7.5-minute Felton topographic map), to identify recorded historic-period resources of the built environment (building, structures, and objects) within a 1/4-mile radius of the above-referenced location.
- The California Department of Parks and Recreation's *California Inventory of Historic Resources* (1976) and the Office of Historic Preservation's *Historic Properties Directory* (updated December 4, 2007), to identify California Historical Landmarks, California Points of Historic Interest, and California historic properties that are listed in or determined eligible for listing in the National Register of Historic Places.
- Available historic-period maps (*diseños* or Spanish/Mexican land grant maps, General Land Office maps, 19th- and early-20th-century USGS 15- and 7.5-minute topographic maps, and Sanborn Company fire insurance maps) to identify historic-period buildings, structures, and objects located within or near the above-referenced location.
- *Handbook of North American Indians, Volume 8: California*, to identify ethnographic village locations and to provide ethnographic information and background where required.

Ethnographic Overview

The project is within the traditional territory of the Costanoan (Levy 1978:485–495). The people collectively called the Costanoan by ethnographers were actually distinct sociopolitical groups who spoke at least eight languages of the same Penutian language group. The speakers of the Costanoan languages occupied a large territory from San Francisco Bay in the north to Big Sur and Salinas rivers in the south. The primary sociopolitical unit was the tribelet, or village community, which was overseen by one or more chiefs. In 1770 the Costanoan-speaking people lived in approximately 50 tribelets with population estimates ranging from 7,000 (Kroeber 1925:464) to 10,000 (Levy 1978:486).

Previous Cultural Resource Studies

The records search indicated that five cultural resources studies having been conducted in or immediately adjacent to the project area (Archaeological Resource Management, 1990; Bourdeau

and Holman, 1989; Breschini and Ryan, 1990; Runnings and Haversat, 1989; Runnings and Haversat, 1995).

Prehistoric Archaeological Resources

No prehistoric cultural resources have been recorded within the project area. No recorded prehistoric cultural resources are located within a half-mile radius of the project area.

Historic-period Archaeological Resources

No historic-period archaeological resources have been recorded within the project area. One historic-period archaeological resource, consisting of a refuse concentration and a debris pile of structural remains, was recorded approximately 1,000 feet west of the current project area (Breschini and Ryan, 1990; Bourdeau and Holman, 1989). A historic-period fence segment containing cut nails was recorded southwest of the current project area (Runnings and Haversat, 1989). None of these resources were officially recorded on DPR 523 site record forms.

Historic Built Environment

No historic-period buildings, structures, or objects have been recorded within a quarter-mile radius of the project area.

While no previously recorded sites exist within the project area, it is possible that unidentified buried archaeological remains are present within the proposed project area. These remains could be unearthed during project construction. Damage to or destruction of significant archaeological remains is a potentially significant impact. Potential impact to archeological resources would be reduced to less than significant with the implementation of **Mitigation Measure CUL-1**.

Mitigation Measure CUL-1: In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 100 feet of the resources shall be halted and after notification, the project sponsor shall consult with a qualified archaeologist to assess the significance of the find. If any find is determined to be significant (CEQA Guidelines 15064.5[a][3] or as unique archaeological resources per Section 21083.2 of the California Public Resources Code), representatives of the Port and a qualified archaeologist shall meet to determine the appropriate course of action. In considering any suggested mitigation proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the lead agency shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is carried out.

Although it is unlikely significant paleontologic would be discovered, significant fossil discoveries can be made even in areas of supposed low sensitivity. In the event a paleontologic resource is encountered during project activities, implementation of **Mitigation Measure CUL-2** would reduce potential impacts to less than significant.

Mitigation Measure CUL-2: If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with the City of Scotts Valley.

Based upon a records search and contacts with Native Americans, no human remains are known to exist within the project area. However, the potential exists that construction could result in the disturbance of human remains, including those interred outside of formal cemeteries. As a result, the following mitigation measure is recommended:

Mitigation Measure CUL-3: If human remains are discovered during construction, CEQA Guidelines 15064.5 (e)(1) shall be followed, which is as follows:

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

- 1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - a) The Santa Cruz County coroner is contacted to determine that no investigation of the cause of death is required, and
 - b) If the coroner determines the remains to be Native American:
 1. The coroner shall contact the Native American Heritage Commission within 24 hours.
 2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
 3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
- 2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
 - a) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the Commission.
 - b) The descendant identified fails to make a recommendation; or
 - c) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Significance after Mitigation: Less than Significant

Comparison to 2005 SEIR Findings: No New Impact, but New or Updated Mitigation Measure Identified

Hazards and Hazardous Materials

The use of the project site has not changed since the 2005 Initial Study which remains inactive and undeveloped. The project site continues to be absent from the Hazardous Waste and Substances Sites list set forth in Government Code 65962.5. The proposed use of the current project may include an increased storage of hazardous materials such as cleaning products and other retail products compared to the office building but would still not be regarded as sufficient to create a significant hazard to the public. All hazardous materials would be subject to existing storage, handling, and disposal regulations that limit the potential exposure to workers and the public. Several of the other significance criteria such as proximity to an airport or school remain unchanged from the 2005 analysis and would present no impact from the project. The proposed project would also not interfere with any emergency response or evacuation plans and would have a similar risk to wildland fires. The proposed project would not include the fire station proposed as part of the 2005, however it would be constructed to meet all current building fire codes that limit potential risks. Therefore, the proposed project overall would have a less than significant impact from Hazards and Hazardous Materials.

Comparison to 2005 SEIR Findings: No New Impact or Changes

Mineral Resources

The Scotts Valley General Plan Mineral Resource Zones map indicates that the project site is located within a Mineral Resource Zone-3 (MRZ-3), which is an area where mineral deposits are present, but cannot be evaluated from available data. The only known area of significant mineral deposits in Scotts Valley is located northwest of the project site, and is the site of an active sand quarry. Construction and operation of the project would not involve quarrying, mining or extraction of any known regionally or locally important mineral, oil or gas resource on the site, nor would it deplete any nonrenewable mineral resource. Consequently, there would be no impact on mineral resources.

Comparison to 2005 SEIR Findings: No New Impact or Changes

Population and Housing

The proposed retail store would create up to approximately 250 jobs. The addition of 250 new employees would not be considered a substantial concentration of population growth since the employment intensity is generally consistent with the area's Specific Plan land use designation and zoning, although at somewhat higher intensity than originally envisioned under the Plan.

In terms of inducing new housing demand, employees can be categorized into those that are currently living in Scotts Valley, those who would be commuting from neighboring cities, and those who would relocate to Scotts Valley from other areas. Only the third category would result in population growth in Scotts Valley. If all 250 employees are conservatively assumed to relocate from other areas to Scotts Valley, this new population would place a demand on housing, community services, and public infrastructure. However, according to AMBAG forecasts between 2000 and 2020, approximately 1,500 new households and approximately 4,000 new jobs are expected in Scotts Valley.

Accordingly, the new employees/households potentially associated with the project would not induce a substantial increase beyond the City's already projected growth rate.

Comparison to 2005 SEIR Findings: No New Impact or Changes

Urban Decay

Urban decay is physical deterioration that is so prevalent and substantial it impairs the proper use of affected real estate, or the health, safety, and welfare of the surrounding community. Physical deterioration can include abnormally high business vacancies, abandoned buildings and industrial sites, boarded doors and windows, long term unauthorized use of properties and parking lots, extensive gang or offensive graffiti painted on buildings, dumping of waste or overturned dumpsters on property, dead trees or shrubbery, uncontrolled weed growth, and homeless encampments.

Recent findings by the State of California's Appellate Court (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1884) have interpreted the requirements of the California Environmental Quality Act (CEQA) as requiring disclosure of the possibility for "urban decay" when considering projects that include a large-format retailer, such as the proposed retail store (Target). It is important to recognize that, like most CEQA requirements, this standard is focused on impacts to the physical environment and as such it requires the consideration of conditions of disinvestment that could result in the decay of real property as a result of the defined project. These conditions are distinct from conditions of blight which are defined by the California Health and Safety Code (sections 33030-33039) which set the standards for the adoption of redevelopment project areas. Gruen Gruen and Associates (GG+A) completed an analysis entitled *The Competitive Effects and Fiscal and Economic Impacts of the Proposed Target Store* (available for review at the Scotts Valley Community Development Department) for the proposed

project to determine whether the project could lead to the closure or vacancy of retail stores in the primary market area of Scotts Valley that might lead to the physical deterioration.

To determine the probability of urban decay resulting from the proposed project, GG+A analyzed the potential for stores in the primary trade area to close as a result of the project being developed and how long it would take to re-tenant such stores.¹

Retail Supply in Scotts Valley

The retail centers in Scotts Valley contain approximately 580,000 square feet (sq.ft.) of space. Most of the existing inventory within Scotts Valley was originally built in the decades of the 1970's and 1980's, with two smaller developments occurring in the past several years. The inventory is extremely well leased. Interviews with representatives of retail centers and with tenants indicate that sales and rents have increased over time. Based on discussions with local brokers and property owners and site inspections, fewer than 20,000 square feet of space is currently vacant for an overall occupancy rate of 97 percent. Retail centers within Scotts Valley have historically maintained high occupancy rates. Space that has become vacant has tended to be re-tenanted in a reasonable time.

The existing retail base within Scotts Valley attracts households and shoppers from beyond the community. Largely attributable to the limited availability of shopping alternatives to the north and west along Highway 9, existing retail centers and retailers within Scotts Valley serve a trade area that includes San Lorenzo Valley households located in Felton, Ben Lomond, and Boulder Creek, in addition to local Scotts Valley residents. While local households do much of their day-to-day shopping in Scotts Valley, they travel to alternative destinations within Santa Cruz County and to Santa Clara County to purchase comparison, shopper and destination goods (including general merchandise, apparel, building materials, and home furnishings). These shopping patterns reflect the limited selection of stores offering these goods in Scotts Valley. Scotts Valley's supply of retail space does not include stores offering "comparison", "shopper" or "destination" goods² such as Target, Kohl's, Lowe's, The Home Depot, Best Buy, Bed, Bath and Beyond, Office Depot, Staples, and The Sports Authority. Scotts Valley lacks larger-scale comparison or shopper-good retail formats such as regional malls, power centers, or so-called "lifestyle" centers.^{3,4}

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- ¹ The primary trade area represents an approximately 12-minute drive time to the south and east and a 15- to 25-minute drive time to the northwest along State Route 9. The primary trade area includes the communities of Scotts Valley, the San Lorenzo Valley, Santa Cruz, Davenport, Capitola and Soquel.
 - ² Comparison or "shopper" goods refer to durable items that are purchased relatively infrequently (televisions, large appliances, jewelry, etc) for which the consumer generally expects to invest time and effort into visiting a variety of retail stores before making a purchase.
 - ³ A power center is a grouping of retail stores without a traditional full-line department store. Power centers are typically dominated by several large anchors, including few if any small shops. Containing three or four category-specific anchors of 20,000 square feet or more, power centers generally emphasize hard goods such as home improvement or houseware goods, consumer electronics, office supplies, pet supplies, or sporting goods.
 - ⁴ According to the International Council of Shopping Centers, a "lifestyle" center is an open air shopping venue including more than 50,000 square feet of space, occupied primarily by upscale national chain specialty stores. Other elements differentiating lifestyle centers from traditional shopping destinations generally include restaurant and entertainment uses, and design ambience and amenities such as fountains and street furniture that are conducive to casual browsing.

Scotts Valley retail centers contain an extremely limited supply of apparel stores. For example, with the exception of one small used and new clothing store for children which relocated from Kings Village to Scotts Village, the Safeway-anchored and Kmart-anchored centers contain no other apparel stores. Scotts Valley contains few home furnishings and décor stores.

Retail Supply Outside Scotts Valley with the Primary Trade Area

The primary shopping locations within the trade area include approximately two million square feet of neighborhood, community, and regional-serving retail space. Including smaller neighborhood centers and freestanding drug stores which are unlikely to directly compete for the expenditures of households for general merchandise offered at the Target store, the primary trade area (outside of Scotts Valley) includes a total of 2.4 million square feet of retail space.

The dominant retail agglomeration including community- and regional-serving retail facilities within the primary trade area, and Santa Cruz County as-a-whole, is concentrated along 41st Avenue in Capitola. This corridor includes the 587,000-square-foot Capitola Mall, which is anchored by Macy's, Sears, and Gottschalk's.⁵ Built in 1989, the trade area of the mall includes much of Santa Cruz County. The Mall attracts households from Scotts Valley.

The leasing agent for the Capitola Mall does not expect the proposed retail store (Target) to directly compete with the Mall's anchors or specialty stores. The department stores at Capitola provide comparison, full-price shopping options, while Target is characterized by its value and convenience orientation.

The second concentration of community- or regional-serving retail space in the primary trade area is located along River Street in Santa Cruz and within Downtown Santa Cruz. Downtown Santa Cruz includes approximately 670,000 square feet of ground floor retail space, most of which is comprised of specialty shops, clothing stores, and restaurants. Downtown Santa Cruz does not have any large general merchandise stores that would compete with Target.

Scotts Valley households also shop north in Santa Clara County for higher-end specialty goods.

Environmental Analysis

Generally, the economic and social effects of a proposed project are not considered by CEQA. (CEQA Guidelines Section 15131(a)). Where economic or social effects of a proposed project will directly or indirectly lead to an adverse physical change in the environment, then CEQA requires disclosure of the resulting physical impacts (CEQA Guidelines Section 15064(e)). Economic or social changes need not be analyzed in any detail greater than necessary to ascertain what physical changes may occur as a result of economic or social changes (CEQA Guidelines Section 15131(a)). Here, the potential impact of vacancy leading to urban decay would be a physical change that would need to be addressed. As noted above, urban decay is physical deterioration that is so prevalent and substantial it impairs the proper utilization of affected real estate or the health, safety, and welfare of the surrounding community. Urban decay can be

⁵ At the time of the printing of this document, we are aware that Gottschalk's is no longer at the Capitola Mall.

caused when the competitive effects of a commercial development project are so severe that other stores can be expected to close as a result of the proposed development and that the buildings containing those stores anticipated to close will not be re-tenanted or reused within a reasonable time but will remain vacant and lead to the decline of other real estate.

Relationship between Estimated General Merchandise Demand and Supply

Demand attributable to primary trade area households for general merchandise goods in a variety of store formats is estimated to support a total of approximately 1.4 million square feet of space. The existing supply of general merchandise space in all formats (including regional mall anchor department stores and drug stores) is estimated to total approximately 913,000 square feet of space. The relationship between estimated demand and supply for general merchandise indicates unmet demand of 459,000 square feet of space. Due to the growth in purchasing power in the primary trade area, even assuming the addition of the proposed retail store (Target), the amount of unmet demand for general merchandise space is estimated to increase to 501,000 square feet by 2013.

Comparing the estimated demand for general merchandise store formats only of 838,000 square feet of space in 2008 to the supply of true general merchandise space, including warehouse membership stores and full-service department stores, produces an estimate of unmet demand of approximately 335,000 square feet in 2008. Assuming the addition of the proposed retail store (Target) retail store, the amount of unmet demand for general merchandise store space only is estimated to approximate 305,000 square feet of space by 2013.

The estimated unmet or excess demand relative to supply is more than enough to support the sales requirements of the proposed retail store without requiring the diversion of sales from other general merchandise stores. While the market conditions suggest that the success of the proposed retail store need not depend upon siphoning off sales from existing stores, some proportion of the sales are likely to represent a shift from other retailers in the primary trade area. The likelihood and extent of sales diversion from existing businesses due to the opening of the proposed retail store would depend upon several primary factors. These include the location and size of stores and degree of differentiation between stores. Many local businesses and centers have a differentiated combination of location, format, product, service and other features that would insulate them from sales diversions due to the entry of the Target store.

The primary store likely to suffer sales diversion is the existing Kmart store in Scotts Valley. This is because of Kmart's location within approximately 1.2 miles of the site of the proposed retail store (Target) and its status as a discount general merchandise store operating in the same "retail space" or category as Target. In addition, as currently presented, the Kmart store is less well organized, less well designed, and appears dated compared to a new Target store. The Kmart store is also smaller and therefore does not offer as many items as will the Target store. Accordingly, the Kmart store is neither as appealing an environment nor as convenient a shopping experience as the Target store is likely to provide.

It is difficult to quantify the amount of potential sales diversion. Kmart could choose to respond to the prod of competition by updating its facility and improving its merchandise mix and service. Assume for purposes of analysis that the opening of the proposed retail store (Target) would cause a reduction in Kmart sales of \$50 per square foot, and based on sales data that indicate that Kmart currently generates sales of \$250 to \$275 per square foot, sales diversion of \$50 per square foot or \$2,750,000 would equate to a sales decline of approximately 18 percent to 20 percent.

Given the favorable market demand-supply conditions and the desirable location within a vital commercial area, should the Kmart store close due to the chain's struggles as a whole or because of the entry of the proposed retail store (Target), it is reasonable to assume that the building would be re-tenanted within a reasonable time. A representative of Scotts Valley Square of which Kmart is a tenant anticipates that it would be feasible to replace Kmart with one or more successful national retailers not present in Scotts Valley that would generate higher sales per square foot and sales spillover to adjoining stores. Kmart leases the building in the shopping center, so there is no reason to believe that the shopping center owner would not maintain the building while seeking another tenant.

The principal competitive effect of the operation of the proposed retail store (Target) would be to increase general merchandise shopping opportunities within the primary trade area, reduce leakage out of Scotts Valley, and increase net annual sales in Scotts Valley.

The opening of the proposed retail store (Target) would also serve to generate increased sales spillover to the nearby commercial uses such as Scotts Valley Corners and potentially other retail centers because of the attraction of shoppers which otherwise would be unlikely to visit Scotts Valley retailers or which would visit the retail base more often because of the addition of the proposed retail store (Target). The operation of the proposed retail store (Target) is not likely to produce competitive economic impacts that would result in urban deterioration and decay.

Comparison to 2005 SEIR Findings: No New Significant Impact

Utilities and Service Systems

Solid Waste Management / Energy

Solid waste disposal for the City of Scotts Valley is provided by Waste Management of Santa Cruz County, which transports solid waste generated by the City to Buena Vista Sanitary Landfill in Watsonville, approximately 20 miles to the southeast of the project site. In 2000, the Buena Vista Sanitary Landfill, which is anticipated to remain operational until 2019, received 12,600 tons of solid waste from Scotts Valley. In 2005, Scotts Valley disposed of approximately 11,004 tons of solid waste or about 30 tons per day. The Buena Vista Sanitary Landfill has a permitted maximum daily disposal of 838 tons per day (CIWMB, 2008). The Initial Study prepared for the 2005 SEIR identified that the previously-proposed office project would not result in significant effects to solid waste disposal. The currently proposed project is not expected to

generate substantially greater amounts of solid waste than that of the previous proposal, and is therefore not expected to exceed the capacity of existing waste management utilities.

Electricity and gas service in the City of Scott's Valley is provided by Pacific Gas and Electric (PG&E), the company which owns the gas and electrical utility supply lines. Throughout most of Scott's Valley, electrical power is delivered via overhead distribution and transmission lines, and natural gas is distributed through underground piping. The project site would be served by existing electric and natural gas utilities which are available in all street frontages adjoining the site. PG&E expands its services on an as-needed basis and requires the user to fund the extension of service.

Sanitary Sewer and Water

The Scott's Valley Water District would supply water to the project site via a 10-inch water main located along Madrona Drive which was originally designed to accommodate 148,000 square feet of commercial development at the project site. District-wide water demand was 3,934 AFY (Acre Feet per Year) in 2000 (SVWD, 2005) and is projected to increase to 4,548 by 2025. For site landscaping as well as interior water use, the project is anticipated to require 5,000 GPD or 5.6 AFY, which is 0.14 percent of the total 2000 supply and 0.12 percent of the projected 2025 supply available within the Scott's Valley Water District service area. A "will-serve" letter obtained from the Scotts Valley Water District on April 6, 2009 provides documentation that the proposed project would be served under an existing entitlement to 28 Equivalent Dwelling Unit (EDU) meter service connections. Plants proposed for use in landscaping of the project are a mixture of drought tolerant native and non-native species. Water demand for landscaping is not expected to be substantial once plant establishment occurs, which should take 1 to 4 years depending on management. The proposed project would also demand water in order to provide adequate flow for fire protection. Analysis and assurance that the project will have adequate fire flow within the municipal water system will be necessary. The Scott's Valley Water District would determine whether the available fire flow at the hydrant would adequately serve the project in the event that fire protection services would be needed (Smith, 2008).

In addition, a fire flow analysis was prepared by C2C Consulting Engineers to determine flow data for the distribution system along La Madrona Drive. The data would be used to determine the if the size, material, and sprinkler requirements for the proposed retail store meet the California Fire code (Title 24, Chapter 9) as well as the National Fire Protection Association requirements (C2G, 2008).

Wastewater treatment services to the project site would be provided by the Scott's Valley Wastewater Treatment Plant (WWTP), located at 700 Lundy Lane in Scotts Valley. The current capacity of the WWTP is 1.5 million gallons per day (Hamby, 2008). The proposed project is expected to generate approximately 11,780 gallons of wastewater per day⁶, which would be less than that of the previously-proposed office project analyzed in the 2005 SEIR. The Initial Study prepared for the 2005 SEIR project identified that the then-proposed project, which was expected to generate approximately 19,000 gallons of wastewater per day, would have resulted in less-

⁶ Based on City of Scotts Valley wastewater generation factor of 0.076 gallons per square foot for retail uses (Hamby, 2008).

than-significant impacts for sanitary sewer and water service systems. Since the expected wastewater treatment demand is expected to remain within the current and anticipated future capacity of the Scott's Valley WWTP, the project would not result in significant impacts to utilities providing wastewater treatment.

Comparison to 2005 SEIR Findings: No New Impact or Changes

Findings

Based on the information discussed above and presented elsewhere in this SEIR, the proposed project would not result in any new significant effects not previously identified.

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CHAPTER 5

Alternatives

The purpose of this chapter is to describe and evaluate the alternatives to the proposed project. Project alternatives are developed to reduce or eliminate the significant or potentially significant adverse environmental effects that would result from development of the proposed project, as identified in Chapter 4.

A. CEQA Requirements

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) describe and evaluate a reasonable range of alternatives to the proposed project, or to the location of the proposed project, and evaluate the comparative merits of the alternatives. The “range of alternatives” is governed by the “rule of reason” which requires the EIR to set forth only those alternatives necessary to permit informed public participation and an informed and reasoned choice by the decision-making body (CEQA Guidelines Section 15126.6[f]).

A reasonable range of alternatives for comparison must include those alternatives that would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen any of the significant effects of the project (CEQA Guidelines Section 15126.6). CEQA generally defines “feasible” to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological, and legal factors. In addition, the following may be taken into consideration when assessing the feasibility of alternatives: site suitability; economic viability; availability of infrastructure; general plan consistency; other plans or regulatory limitations; jurisdictional boundaries; and, the ability of the proponent to attain site control (Section 15126.6(f)(1)).

The requirement that an EIR evaluate alternatives to the proposed project, or alternatives that address the location of the proposed project, is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while reducing the magnitude of, or avoiding, the environmental impacts of the proposed project. The description or evaluation of alternatives does not need to be exhaustive and an EIR need not consider alternatives for which the effects cannot be reasonably determined and for which implementation is remote and speculative. An EIR need not describe or evaluate the environmental effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project.

CEQA requires that an environmentally superior alternative be selected among the alternatives. In general, the environmentally superior alternative is defined as that alternative with the least adverse impacts to the project area and its surrounding environment. When the “No-Project” alternative is the environmentally superior alternative, an EIR must also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)).

B. Factors in the Selection of Alternatives

The CEQA Guidelines recommend that an EIR should briefly describe the rationale for selecting the alternatives to be discussed, identify any alternatives that were considered by the lead agency but were rejected as infeasible, and briefly explain the reasons underlying the lead agency’s determination [CEQA Guidelines, Section 15126.6(c)]. The following factors were considered in identifying the reasonable range of alternatives to the project for this EIR:

- The extent to which the alternative would accomplish most of the basic goals and objectives of the project;
- The extent to which the alternative would avoid or lessen the identified significant and unavoidable environmental effect of the project;
- The potential feasibility of the alternative, taking into account site suitability, economic viability, and availability of infrastructure;
- Consistency with the City of Scotts Valley General Plan, the Gateway South Specific Plan and other policy or regulatory considerations;
- The requirement of the CEQA Guidelines to consider a “No-Project” alternative and to identify an “environmentally superior” alternative in addition to the no-project alternative [CEQA Guidelines, Section 15126.6(e)].

Selection of Alternatives Analyzed in the 2005 SEIR

Including the No Project Alternative, four alternatives were considered in the 2005 SEIR. However, three of the alternatives were considered infeasible due to political or environmental constraints.

A large scale retail store was considered, but rejected because it did not have support. A light industrial alternative was evaluated, but rejected as it would not have less than significant impacts compared to the project. Finally, a high density residential development alternative was considered, but rejected, because it would be constrained due to water resources.

The alternative discussed at length was the CEQA required “No Project.” The No Project alternative considered development under the Specific Plan, of a commercial service use of a 15,000 square foot building with parking for approximately 60 vehicles on surface-level parking areas front La Madrona Drive.¹ It was determined that the No Project Alternative would have less

¹ The City of Scotts Valley requires one parking space per 250 gross square feet of commercial/retail development.
 $15,000/250 = 60$

significant impacts on the environment compared to the proposed office building; however it would not meet the City's objective to strengthen Scotts Valley's commercial areas.

C. Project Objectives

As previously presented in Chapter 3, the basic objectives of the project include the following:

- Construct a locally and regionally serving general merchandise store (Target) that would serve Scotts Valley and nearby communities, providing needed retail goods and services.
- Develop a viable retail project (Target Store) which increases the tax base of the City by contributing a positive generation of tax revenue to the City.
- Promote economic growth by creating new employment opportunities within the City.
- Provide convenient access to the community and to the traveling public with a location immediately adjacent to State Route (SR) 17, while minimizing impacts on the local street system.
- Develop an aesthetically pleasing site plan and architectural building design that exemplifies the City's planning and design criteria.

D. Significant Impacts

The project would result in four significant and unavoidable transportation impacts due to intersection delay. The alternatives selected were evaluated as to the extent they would avoid or reduce these impacts. In addition, the selected alternatives are intended to avoid or reduce impacts from grading, biological resource disturbance, visual quality, and hydrology.

The significant and unavoidable impacts identified under transportation include:

Impact TRAN-2c: The addition of project-generated traffic would degrade operations on the eastbound approach at the unsignalized intersection of La Madrona Drive / Alenitas Road from an acceptable LOS C or better to an unacceptable LOS D or worse during the AM, PM and Saturday peak hours.

Impact TRAN-2d: The addition of project-generated traffic would degrade operations on the southbound approach at the unsignalized intersection of Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps from an acceptable LOS C to an unacceptable LOS D during the PM peak hour.

Impact TRAN-5a: The addition of project-generated traffic would substantially increase the queue of vehicles in the northbound left-turn lane at the intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp.

Impact TRAN-5b: The addition of project-generated traffic would substantially increase the queue of vehicles in the westbound left-turn lane at the intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp.

Impact TRAN-8a: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / Scotts Valley Drive would degrade the prevailing unacceptable operations during the AM, PM and Saturday peak hours.

Impact TRAN-8b: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp would degrade the prevailing acceptable operations during the PM and Saturday peak hours.

Impact TRAN-8c: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / Kings Village Road would degrade the prevailing acceptable operations during the PM and Saturday peak hours.

Impact TRAN-8d: The addition of project-generated traffic to Cumulative Baseline volumes on the eastbound approach at the unsignalized intersection of La Madrona Drive / Alenitas Road would degrade the prevailing acceptable LOS during the AM, PM and Saturday peak hours.

Impact TRAN-8e: The addition of project-generated traffic to Cumulative Baseline volumes on the southbound approach at the unsignalized intersection of Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps would worsen the prevailing unacceptable LOS during AM, PM and Saturday peak hours.

Although not required by CEQA, the impact discussion of each alternative below also addresses each alternative's ability to avoid or reduce each of the other significant but mitigable impacts identified for the project. Each of these impacts and the relative effects of each alternative compared to the proposed project is summarized in **Table 5-1** at the end of this chapter.

E. Alternatives Selected for Consideration

With consideration given to the above factors for selection, the Lead Agency, the City of Scotts Valley, identified the following reasonable range of project alternatives to be addressed in this EIR:

- No Project Alternative (Existing Conditions, No Change)
- Off-Site Alternative
- Two-Story Alternative

The City also considered two additional alternatives which were considered but rejected as infeasible. These alternatives are discussed in Section G below.

In addition, the office building project approved under the 2005 SEIR would also be considered as a No Project Alternative, as it could still be constructed on the project site, and is a reasonable foreseeable project. The project would have included a two-story 136,000 building on approximately 6.6 acres of the lower, flatter portions of the site. Similar to the proposed project, the remaining acres (in this case 11 acres) would have been maintained as natural or landscaped natural open space, including the forested upper slopes on the western side of the property.

The impacts of the 2005 SEIR office project and how they compare to the proposed project have been discussed throughout Chapter 4 of this SEIR. The office project would have similar impacts the proposed project and would require mitigation to reduce impact to aesthetics, biological resources, geology, and hydrology. The 2005 SEIR project would also have similar construction methods and thus mitigation measure would be identical. The major difference between the proposed project and the approved project is that transportation impacts related to intersection delay would be mitigable.

F. Description and Analysis of Alternatives

Throughout this section, a description of each alternative is followed by a discussion of its impacts and how it differs from those of the project. As permitted by CEQA, the significant effects of the alternatives are discussed in less detail than are the effects of the project (CEQA Guidelines, Section 15126.6[d]). However, the analysis is conducted at a sufficient level of detail to provide project decision-makers adequate information to fully evaluate the alternatives and to approve any of the alternatives without further environmental review.

No Project

Consideration of a No Project Alternative is required under CEQA. Section 15126.6(e) of the CEQA *Guidelines* states: “The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.”

Under the No Project Alternative, the proposed project would not be undertaken, and no change would occur on the site. The proposed new commercial development on the site would not be constructed. The site would remain in its current undeveloped state for an unknown period of time.

Although it is reasonable to assume that the project site would eventually have some development, no other plans for the project site are currently under consideration. Therefore, should the proposed project be rejected, the No Project Alternative assumes no change in the existing environment, and would result in a continuation of existing conditions on the site. The no-project alternative would eliminate or substantially reduce all project-related impacts.

Impacts

The No Project Alternative would eliminate or substantially reduce all impacts associated with the project. However, the No Project Alternative would not meet any of the objectives of the proposed project namely to construct a locally and regionally serving general merchandise store (Target) that would serve Scotts Valley and nearby communities, providing retail goods and services.

Traffic and Circulation

No construction or changes to the project site would occur with the No Project Alternative. The vacant site would not generate vehicle trips under the No Project Alternative. Potentially significant (reduced to less than significant with mitigation measures) traffic impacts related to construction traffic, driveway design, and parking associated with the project would be avoided. In addition, significant and unavoidable impacts related to intersection delay increases would be avoided if the project was not built.

Aesthetics and Visual Quality

With the No Project Alternative, views of and across the project site from public viewpoints would be the same as described in the setting section of *Aesthetics* in Chapter 4. No construction would occur, therefore no buildings or infrastructure would result on the site which would alter the existing views. Under the No Project Alternative the existing vegetation on the site would remain. This analysis does not assume that the existing project site presents an adverse aesthetics effect; the proposed project's native vegetation restoration and redwood grove planting would be provided specifically to reduce the optional visual impacts of the proposed project. Thus the No Project Alternative would avoid the potentially significant, but mitigable aesthetics effects (i.e., light, glare, and design) that would result with the proposed project during and after construction.

Land Use and Planning

The No Project Alternative assumes no change would occur on the project site. Therefore, this alternative would not fulfill the vision of the *Gateway South Specific Plan* for opportunities to enhance the City's tax base and provide employment opportunities. The proposed project would result in less-than-significant impacts related to land use, plans, and policies. This alternative would have no impact.

Biological Resources

No construction activities would occur with the No Project Alternative. No new impacts to wildlife would occur from altered onsite light or increased noise that would otherwise result with the project. The potentially significant (reduced to less than significant, after mitigation) impacts to jurisdictional wetlands and nesting/breeding habitats and special status species that would occur due to construction activities and other project operations (increased human activity) would not occur with this alternative.

Geology and Soils

No building development or changes to the project site or its uses would occur with the No Project Alternative. Therefore, the project's less-than-significant impact (after mitigation) related to slope instability hazards, including landslides, debris flows and rockfalls caused by seismic or nonseismic mechanisms would not occur. In addition, the project's less-than-significant impact (after mitigation) related to exposing people or structures to seismic hazards, expansive soils, or other geologic hazards also would not occur.

Hydrology and Water Quality

The No Project Alternative would not require construction activities (excavation, soil stockpiling, boring, grading, and dredging) that would be associated with the proposed project, and therefore, water quality issues related to runoff during construction would not occur. Existing drainage conditions on the project site would continue with this alternative.

Noise

No construction or changes to the project site would occur with the No Project Alternative. Therefore, the noise environment would exist as it does today, and significant, but mitigable noise impacts related to construction noise and less-than-significant impacts from the introduction of noise associated with the proposed project would be avoided.

Air Quality

No construction or changes to the project site would occur with the No Project Alternative; therefore this alternative would avoid the construction phase impacts that would occur with the project. Air emissions, including greenhouse gas emissions, associated with the project would be avoided under the No Project alternative.

Public Services and Recreation

Since the No Project Alternative would not develop the site, impacts related to public services and recreation associated with the proposed project would not occur.

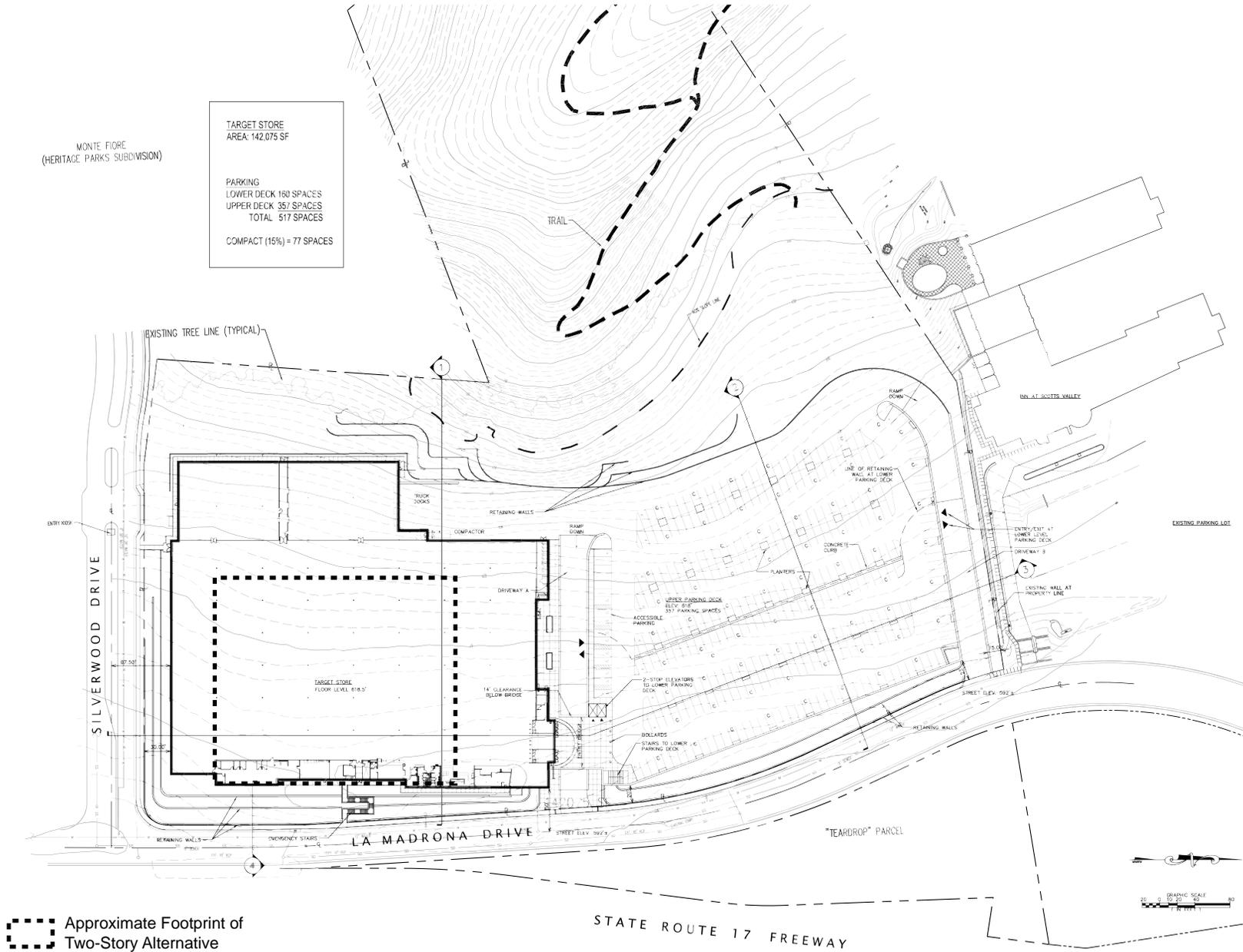
Other Issues

All other topics addressed in the EIR will have a less than significant impact without any required mitigation, as analyzed throughout Chapter 4. In summary, all other effects associated with this alternative would remain the same as identified in the environmental setting discussion of each topic.

As the 2005 SEIR approved the development of an office building on the project site, this could also be considered a No Project Alternative. A discussion of the environmental impacts of constructing an office building on the site is outlined in Section F below.

Two-Story Alternative

The Two-Story Alternative would construct a similar size store in terms of retail floor area, but with a smaller building coverage. As with the project, this alternative would be constructed in the southeast corner of the project site parcel, adjacent to La Madrona Drive and Silverwood Drive. However, the proposed building foot print would cover 129,150 sq.ft. compared to the 200,650 sq.ft. of the proposed project. An approximate building coverage is illustrated in **Figure 5-1**.



 Approximate Footprint of Two-Story Alternative

Figure 5-1
Two-Story Alternative

Impacts

Traffic and Circulation

Development under the Two-Story Alternative would construct a similar size store, but with a smaller coverage. The two-story building would generate the same number of trips as the proposed project. Thus, mitigation measures associated with roadway and intersection impacts under the proposed project would apply. The Two-Story Alternative would have the same significant and unavoidable impacts identified for the proposed project.

Aesthetics and Visual Quality

The aesthetic impacts under the Two-Story Alternative would be similar in nature to, but somewhat diminished in degree from, those of the proposed project. The building would be constructed so that the second floor would be at the same elevation of the ground floor of the proposed project; however, the Two-Story Alternative would not have such a large building coverage, making the views into and across the sight less obtrusive than the proposed project. The smaller building coverage would allow the building to be set back farther from Silverwood Drive (approximately 60 feet), which would allow for more landscaping and buffer area. The two-story building would be slightly less bulky and thus less visible from SR 17, as compared to the proposed project. Therefore, the Two-Story Alternative would have incrementally fewer impacts to the visual environment. Visual simulations of the Two-Story Alternative are presented in **Appendix F**.

Land Use and Planning

The Two-Story Alternative would also require a *General Plan* amendment for allowable coverage in Planning Area B of the *Gateway South Specific Plan*. Although the store would be the same square footage, the building coverage of the retail store would be approximately half that of the proposed project (approximately 76,000 sq.ft.); however the parking deck coverage would remain the same. Because the Two-Story Alternative would be constructed so that the second floor would be at the same elevation of the ground floor of the proposed project, thus it would not require a variance for allowable height, as the C-S land use limits buildings to 35 feet. Therefore, with acknowledgement that policy conflicts are not considered a physical impact pursuant to CEQA, this alternative would adhere to the policy standard outlined in the Gateway South Specific Plan related to allowable building coverage and height, maintaining the proposed project's less-than-significant impact related to land use, plans and polices.

Biological Resources

Impacts from the Two-Story Alternative would be the slightly less than with the proposed project, as a two-story building would potential disturb less habitat. However, mitigation measures identified for the proposed project, such as construction monitoring, tree replacement, and the wetland delineation would be required with the Two-Story Alternative. In particular, this alternative would reduce, but not eliminate, the need to fill wetlands.

Geology and Soils

The Two-Story Alternative would have similar construction impacts and thus mitigation measure to the proposed project, as project earthwork activities (i.e., grading, excavation, and fill) would be similar in nature. This site, however, would require less grading and land disturbance. In addition the Two-Story Alternative would create less impervious surfaces, have a smaller foundation, and require fewer retaining walls. This alternative would avoid the need for a three tiered retaining wall.

Hydrology and Water Quality

The Two-Story Alternative would result in less development than the project as the building coverage would be smaller, but would include a comparable sized parking deck as the proposed project. The alternative would result in a slight reduction in impervious surface area on the site. Development of the Two-Story Alternative would incorporate existing regulatory standards, requirements, and best management practices (during construction and project operations) aimed at reducing untreated runoff, soil erosion, and potential flooding in particular. Standard conditions identified to reduce the project's impacts to less than significant would apply to the Two-Story Alternative as well. Overall, the two-story building would result in slightly less impacts than those identified for the project.

Noise

Construction of the Two-Story Alternative would involve essentially the same construction activities as the proposed project, therefore the impacts and mitigation measures required would be the same as identified for the project.

Air Quality

Since the Two-Story Alternative would require construction of a building and site improvements, construction impacts on air quality would be similar to the proposed project, and all mitigation measures related to construction would apply.

Public Services and Recreation

Since the Two-Story Alternative would develop the site with the same use, impacts related to public services and recreation would be similar to the proposed project, and all mitigation measures would apply.

Other issues

All other topics addressed in the SEIR will have a less than significant impact with this alternative, as analyzed throughout Chapter 4. This alternative would implement the mitigation measures related to construction and operations identified in this SEIR for the proposed project because the majority of impacts are related to the development and operation on the site not the building coverage. It would implement mitigation measures related to aesthetics, air quality, biology, and noise. This alternative would also be required to implement mitigation measures related to construction (i.e., air quality, noise, hydrology and water quality, and traffic).

Off-Site Alternative

This alternative, which considers another site for the proposed project was evaluated to determine whether potentially significant impact to transportation, geology, and biological resources could be substantially reduced. The Off-Site Alternative would construct a similar retail store, but at another location. The off-site location is situated north of the Granite Creek Road off-ramp on the east side of SR 17. The approximately 6.4 acre site, know as the Borland Site Parcel A, is located at Santa's Village Road. An aerial photograph delineating the parcel of the Off-Site Alternative is presented in **Figure 5-2**.

A retail store at this location would likely be a two-story building with both surface and roof-top parking.

Impacts

Traffic and Circulation

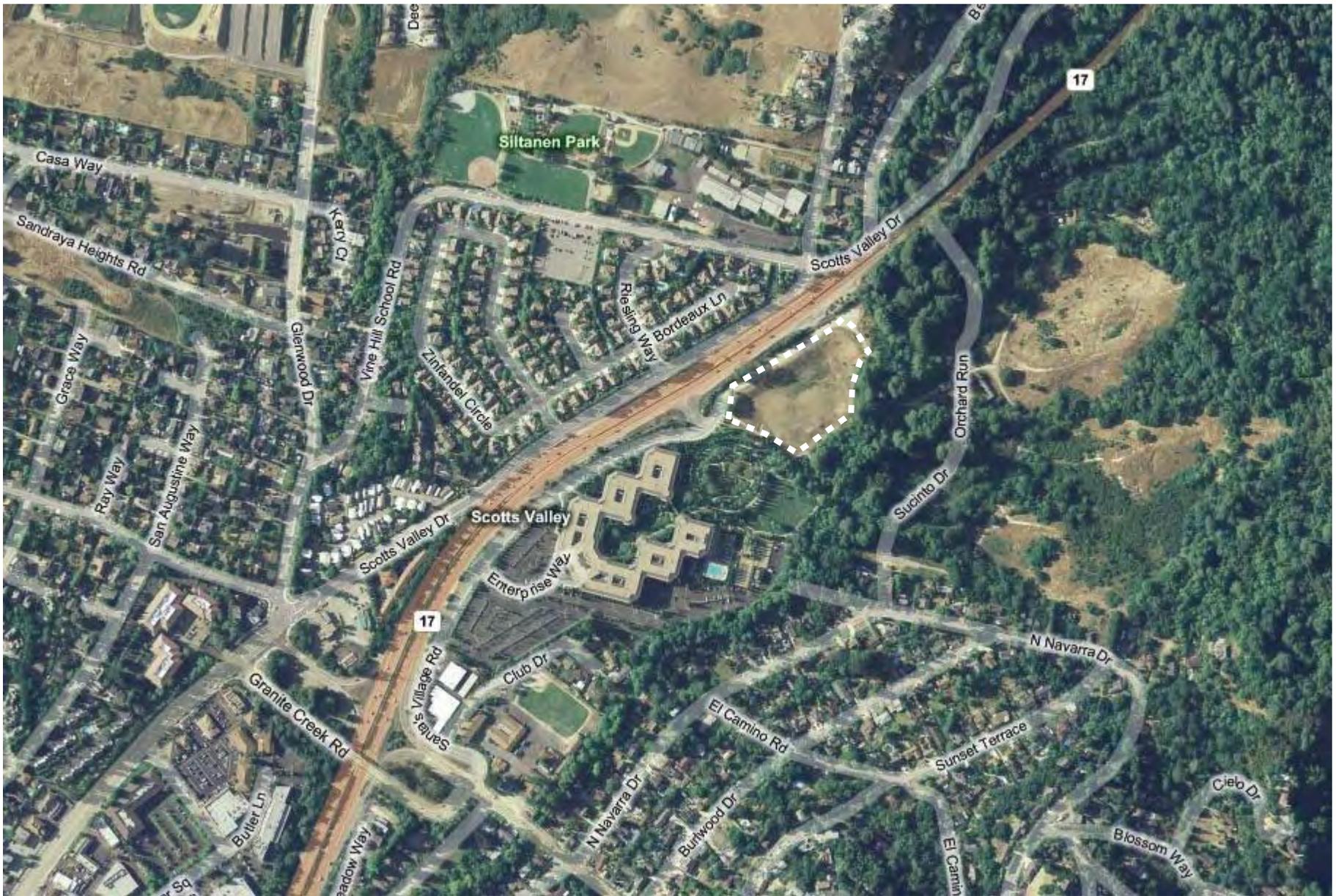
Development under the Off-Site Alternative would construct a similar size store, but at another location in the City. The alternate site store would generate the same number of trips as the proposed project. However, impacts related to intersections and roadways adjacent to the proposed project site would be avoided. The Off-Site Alternative would, on the other hand, result in significant impacts at the Granite Creek Road/Santa's Village Road/SR 17 Northbound Ramp intersection under Existing Plus Project conditions. The following improvements would mitigate the impacts:

- Restripe the southbound (Santa's Village Road) approach to provide a shared right-turn/through lane, and a separate left-turn lane. Convert split phasing to protected left-turn phasing for the north- and southbound (Granite Creek Road – Santa's Village Road) approaches.

Under Cumulative Conditions the project would result in significant impacts at the Granite Creek Road/Santa's Village/SR 17 Northbound ramp intersection. Mitigation would include the following improvement to reduce impacts to a less than significant level:

- Restripe the southbound (Santa's Village Road) approach to provide a shared right-turn/through lane, and a shared left-turn/through lane and maintain split phasing for the north- and southbound (Granite Creek Road – Santa's Village Road) approaches.

A complete evaluation of the transportation impacts of the Off-Site Alternative is discussed in the transportation analysis presented in Appendix E. The Off-Site Alternative would have fewer transportation impacts on intersection delay, as mitigation measures would reduce impacts to a less than significant level.



----- Off-Site Alternative Location

Figure 5-2
Off-Site Alternative

Aesthetics and Visual Quality

The aesthetic impacts under the Off-Site Alternative would be potentially more substantial than the proposed project. The building mass would be similar to the proposed project; however, the Off-Site Alternative would be visible to residents in the hills to the east and northeast. The building would be highly visible to southbound motorists on SR 17; more so than the proposed project because this alternative site is closer to the highway. Like the proposed project, the Off-Site Alternative would not be visible to northbound motorists on SR 17. Therefore, the Off-Site Alternative would have similar or potentially more severe impacts to the visual environment. Visual simulations of the Off-Site Alternative are presented in **Appendix F**.

Land Use and Planning

The General Plan land use for the site is Research and Development (I-RD) with a 50 percent maximum building coverage and a 35 feet height limit. A similar size store and related parking area at this location would require a variance for building coverage as development would cover approximately 54 percent of the site (3.5 acres of development on a 6.4 acre site). In addition, the site would require a *General Plan* amendment to change the land use designation of the site from I-RD to Service Commercial (C-S). Therefore, with acknowledgement that policy conflicts are not considered a physical impact pursuant to CEQA, while this alternative would not adhere to the policy standard outlined in the *General Plan*, it would adhere to natural resource polices and maintain the proposed project's less-than-significant impact related to land use, plans and polices.

Biological Resources

The Off-Site Alternative location has been previously developed as amusement park and a park-n-ride lot; it was most recently used as a soccer field. Carbonera Creek is located along the eastern boundary. The project site is adjacent to natural riparian areas along Carbonera Creek, wooded uplands, and disturbed non-native grassland in the center of the site. Based on a reconnaissance site investigation, there are likely no protected plant communities present at the site, and very few trees, which are restricted to the margins of the property, and could be avoided or trimmed rather than removed. However, Santa Cruz tarplant (*Holocarpha macradenia*), a federally endangered plant that is known from the Scotts Valley area, is a disturbance-tolerant species that grows in grasslands with sandy soils, and suitable habitat for this species is potentially present at the site. Although the tarplant was not observed during a site visit, more focused floristic surveys would be required to identify context-specific mitigation, if applicable. There are also populations of Scotts Valley spineflower (*Chorizanthe robust* var. *hartwegii*), and Scotts Valley polygonum (*Polygonum hickmanii*) in the vicinity. Direct or indirect significant impacts could potentially occur to the riparian habitat adjacent to the alternative site. California red-legged frogs may be present in the Carbonera Creek corridor, and may use adjacent grasslands as aestivation habitat. The grassland may also provide foraging habitat for raptors. In addition, a rectangular area in the middle of the property exists several feet below grade, potentially causing water from precipitation to pond in the winter months. Based on the grasses on the site, this area could be considered a wetland, and a formal wetland delineation would have to be carried out to determine the presence of wetlands at the site. A biological assessment of the Off-Site Alternative parcel is presented in **Appendix F**. Mitigation measures required for the

proposed project related to construction monitoring, trees, wildlife, and wetlands would likely be required with this alternative.

Geology and Soils

The topography of the Off-Site Alternative location is characterized by nearly flat to gently sloping near Carbonera Creek and moderate slopes west of the creek. The underlying bedrock consists of Santa Cruz Mudstone and Purismia Formation. Soils on the site are characterized as very deep, well-to-somewhat poorly drained loams and sandy loams. The potential for liquefaction and lateral spreading to occur on portion of the project site is high, particularly near Carbonera Creek. No active or potentially active faults are known to occur within the project site.

The Off-Site Alternative would have similar construction impacts and thus mitigation measure to the proposed project, as project earthwork activities (i.e., grading, excavation, and fill) would be similar. This alternative would avoid the impact related to setbacks from a 40 percent slope, thus would not require a series of retaining walls; however, it would likely require adherence to liquefaction hazards construction requirements. The Off-Site Alternative would have different, but a similar number of potentially significant impacts (reduced to a less-than-significant level with mitigation) as the proposed project.

Hydrology and Water Quality

The Off-Site Alternative would potentially increase sedimentation in Carbonera Creek during construction. In addition, shallow groundwater (i.e., as high as six feet below the ground surface) could be removed during construction dewatering. The shallow ground water could cause significant impacts during the project's operation life, as it could cause instability to retaining walls and foundation, and unwanted dampness of floor slabs. Such impacts could typically be avoided to a less-than-significant level through corrective engineering. Unlike the proposed project that would have less-than-significant impacts, the Off-Site Alternative would have significant, but mitigable impacts on hydrology and water quality.

Noise

Construction of the Off-Site Alternative would involve the same construction activities as the proposed project, therefore the impacts and mitigation measures required would be the same as identified for the project.

Air Quality

Since the Off-Site Alternative would require construction of a building and site improvements, construction impacts on air quality would be similar to the proposed project, and all mitigation measures related to construction would apply.

Public Services and Recreation

Since the Off-Site Alternative would develop the site with the same use, impacts related to public services and recreation would be similar to the proposed project, and all mitigation measures would apply.

Other issues

All other topics addressed in the SEIR will have a less than significant impact with this alternative, as analyzed throughout Chapter 4. This alternative would implement the mitigation measures related to construction and operations identified in this SEIR for the proposed project because the majority of impacts are related to the development and operation of a building not the project site itself. It would implement mitigation measures related to aesthetics, air quality, biology, and noise. This alternative would also be required to implement mitigation measures related to construction (i.e., air quality, noise, hydrology and water quality, and traffic).

G. Environmentally Superior Alternative

The No Project/Existing Conditions Alternative would avoid the project level impacts to all resources areas, including transportation, biology, geology, and those related to construction, as nothing would be built under this alternative. It would also avoid the potentially significant impacts associated with the project and each of the other alternatives. Therefore, the No Project/Existing Conditions Alternative would be the environmentally superior alternative. However, the No Project/Existing Conditions Alternative does not meet any of the objectives and goals of the project, namely construction of a regional and local merchandise store adjacent to SR 17.

CEQA requires that that a second alternative be identified when the “No Project” alternative emerges as the Environmentally Superior Alternative (CEQA Guidelines, Section 15126.6(e)). Therefore, based on the alternatives analysis presented above, the Off-Site Alternative is considered environmentally superior to the project and the remaining Two-Story Alternative. Although the Off-Site Alternative would have potentially significant impacts related to biological resources, geology, and hydrology, it would avoid the significant and unavoidable impacts related to intersection delay. The impacts to study intersections under the Off-Site Alternative would be mitigated to a less-than-significant level.

H. Project Alternatives Considered but Rejected for Further Analysis in this EIR

CEQA Guidelines Section 15126.6(c) requires an EIR to identify and briefly discuss any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process. In identifying alternatives, primary consideration was given to alternatives that would reduce significant impacts while still meeting most of the project objectives. Alternatives that would have the same or greater impacts as the proposed project, or that would not meet most of the project objectives, were rejected from further consideration.

The project site was approved for office development in the 2005 SEIR, however, current market conditions the property owner determined that retail was a more viable use. A high density housing land use was considered for the site despite the zoning as a commercial land use. Residential use was rejected due to economic constraints and water allocation.

**TABLE 5-1
SUMMARY OF IMPACTS: PROJECT AND ALTERNATIVES**

NOTE: Significance levels shown in the table reflect levels of significance after mitigation and indicate maximum impact during buildout and operation, unless otherwise specified.	Project	No Project	Two-Story	Off-Site
A. Transportation and Circulation				
Impact TRAN-1: Project construction would result in temporary increases in truck traffic and construction worker traffic.	LSM	N	LSM	LSM
Impact TRAN-2: Operation of the proposed project would increase traffic at intersections in the project vicinity under existing plus project conditions. (Significant at intersections described in Impacts TRAN-2a to TRAN-2d)				
Impact TRAN-2a: The addition of project-generated traffic would degrade operations at the signalized intersection of Mt. Hermon Road / Scotts Valley Drive from an acceptable LOS D to an unacceptable LOS E during the PM peak hour.	LSM	N	LSM	N
Impact TRAN-2b: The addition of project-generated traffic would degrade operations at the signalized intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp from an acceptable LOS C to an unacceptable LOS D during the Saturday peak hour.	LSM	N	LSM	N
Impact TRAN-2c: The addition of project-generated traffic would degrade operations on the eastbound approach at the unsignalized intersection of La Madrona Drive / Alenitas Road from an acceptable LOS C or better to an unacceptable LOS D or worse during the AM, PM and Saturday peak hours.	SU	N	SU	LS
Impact TRAN-2d: The addition of project-generated traffic would degrade operations on the southbound approach at the unsignalized intersection of Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps from an acceptable LOS C to an unacceptable LOS D during the PM peak hour.	SU	N	SU	LS
Impact TRAN-3: Operation of the proposed project would increase traffic at the SR 17 interchange with Mt. Hermon Road under existing plus project conditions.	LS	N	LS	LS
Impact TRAN-4: Operation of the proposed project would require adequate provision for site access	LS	N	LS	LS
Impact TRAN-5: Operation of the proposed project would require additional queue storage.				
Impact TRAN-5a: The addition of project-generated traffic would substantially increase the queue of vehicles in the northbound left-turn lane at the intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp.	LSM	N	LSM	LS
Impact TRAN-5b: The addition of project-generated traffic would substantially increase the queue of vehicles in the westbound left-turn lane at the intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp.	SU	N	SU	LS
Impact TRAN-6: Operation of the proposed project would require adequate provision for onsite parking.	LSM	N	LS	LS
Impact TRAN-7: Operation of the proposed project would increase pedestrian, bicycle and transit traffic in the project area.	LS	N	LS	LS
Impact TRAN-8: Operation of the proposed project would increase traffic at intersections in the project vicinity under Cumulative (2018) Plus Project conditions. (Significant at intersections described in Impacts TRAN-6a, TRAN-8a to TRAN-8e)				

Legend

LS	Less than significant or negligible impact; no mitigation required
LSM	Less than significant impact, after mitigation
SU	Significant and unavoidable adverse impact, after mitigation
N	No impact
B	Beneficial

TABLE 5-1 (Continued)
SUMMARY OF IMPACTS: PROJECT AND ALTERNATIVES

NOTE: Significance levels shown in the table reflect levels of significance after mitigation and indicate maximum impact during buildout and operation, unless otherwise specified.	Project	No Project	Two-Story	Off-Site
A. Transportation and Circulation (cont.)				
Impact TRAN-8a: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / Scotts Valley Drive would degrade the prevailing unacceptable operations during the AM, PM and Saturday peak hours.	SU	N	SU	LS
Impact TRAN-8b: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp would degrade the prevailing acceptable operations during the PM and Saturday peak hours.	SU	N	SU	LS
Impact TRAN-8c: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / Kings Village Road would degrade the prevailing acceptable operations during the PM and Saturday peak hours.	SU	N	SU	LS
Impact TRAN-8d: The addition of project-generated traffic to Cumulative Baseline volumes on the eastbound approach at the unsignalized intersection of La Madrona Drive / Alenitas Road would degrade the prevailing acceptable LOS during the AM, PM and Saturday peak hours	SU	N	SU	LS
Impact TRAN-8e: The addition of project-generated traffic to Cumulative Baseline volumes on the southbound approach at the unsignalized intersection of Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps would worsen the prevailing unacceptable LOS during AM, PM and Saturday peak hours.	SU	N	SU	LS
Impact TRAN-9: Operation of the proposed project would increase traffic at the SR 17 interchange with Mt. Hermon Road under existing plus project conditions.	LS	N	LS	LS
B. Aesthetics				
Impact AES-1: Construction of the project would create temporary aesthetic nuisances associated with project construction and grading activities.	LSM	N	LSM	LSM
Impact AES-2: The proposed project would alter views of and across the project site, but would not have a substantial adverse effect on a scenic vista or substantially damage scenic resources.	LS	N	LS	LS
Impact AES-3: Implementation of the proposed project would alter, but would not substantially degrade the existing visual character or quality of the site and its surroundings.	LS	N	LS	LS
Impact AES-4: Implementation of the proposed project would result in an increase in light and glare at the project site.	LSM	N	LSM	LSM
Impact AES-5: Development proposed as part of the project, when combined with past, present and other foreseeable development in the vicinity, would not result in cumulative impacts to visual resources.	LS	N	LS	LS
C. Land Use and Planning				
Impact LU-1: The proposed project would not physically divide an established community.	LS	N	LS	LS
Impact LU-2: The proposed project would be consistent with applicable land use policies and zoning regulations for the City of Scotts Valley.	LS	N	LS	LS

Legend

LS	Less than significant or negligible impact; no mitigation required
LSM	Less than significant impact, after mitigation
SU	Significant and unavoidable adverse impact, after mitigation
N	No impact
B	Beneficial

TABLE 5-1 (Continued)
SUMMARY OF IMPACTS: PROJECT AND ALTERNATIVES

NOTE: Significance levels shown in the table reflect levels of significance after mitigation and indicate maximum impact during buildout and operation, unless otherwise specified.	Project	No Project	Two-Story	Off-Site
C. Land Use and Planning (cont.)				
Impact LU-3: The proposed project would conflict with the applicable land use policy contained in the Gateway South Specific Plan; however, the proposed project includes a Specific Plan Amendment that, if approved, would eliminate the inconsistency.	LS	N	LS	LS
Impact LU-4: The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan.	N	N	N	N
Impact LU-5: The proposed project, together with other developments in the immediate vicinity, would not contribute to potential cumulative land use impacts.	LS	N	LS	LS
D. Biological Resources				
Impact BIO-1: The proposed project would remove (0.96 acres) of freshwater seep wetland habitat.	LSM	N	LSM	LSM
Impact BIO-2: Removal of trees and other vegetation could result in the loss of nesting or roosting habitat for special-status raptors and other bird species that are protected by California Fish and Game Code 3503 and the Migratory Bird Treaty Act.	LSM	N	LSM	LSM
Impact BIO-3: Removal of native vegetation including woodlands, conifer forest, and open grasslands would reduce the available forage habitat for raptors and other birds.	LS	N	LS	LSM
Impact BIO-4: Implementation of the proposed project has the potential to result in adverse impacts to native oak or other native trees as defined by the City of Scotts Valley Tree Protection Regulations (Chapter 17.44.080).	LSM	N	LSM	LSM
Impact BIO-5: Construction of the proposed project has the potential to affect roosting or breeding special-status bats in and near the project site.	LSM	N	LSM	LSM
Impact BIO-6: The proposed project, when combined with development in Scotts Valley and in the surrounding area, would contribute to a reduction of open space and, consequently, habitat for native plants and wildlife, including special-status species.	LS	N	LS	LS
E. Geology, Soils, and Seismicity				
Impact GEO-1: The proposed project would be subject to ground shaking from a seismic event on one of the regional active faults, potentially causing personal injury and significant damage to structures.	LS	N	LS	LSM
Impact GEO-2: Development at the project site could subject people and property to slope instability hazards, including landslides, debris flows and rockfalls caused by seismic or nonseismic mechanisms.	LSM	N	LSM	LS
Impact GEO-3: With proposed cut and fill operations at the project site, development at the project site would be susceptible to settlement and potentially differential settlement either from static forces or earthquake induced forces causing structural damage or personal injury.	LS	N	LS	LS
Impact GEO-4: Implementation of the proposed project, combined with past, present, and reasonably foreseeable probable projects, would not result in substantial adverse cumulative impacts to geology, soils, or seismic hazards.	LS	N	LS	LS

Legend

LS	Less than significant or negligible impact; no mitigation required
LSM	Less than significant impact, after mitigation
SU	Significant and unavoidable adverse impact, after mitigation
N	No impact
B	Beneficial

TABLE 5-1 (Continued)
SUMMARY OF IMPACTS: PROJECT AND ALTERNATIVES

NOTE: Significance levels shown in the table reflect levels of significance after mitigation and indicate maximum impact during buildout and operation, unless otherwise specified.	Project	No Project	Two-Story	Off-Site
F. Hydrology and Water Quality				
Impact HYD-1: The proposed project would require earthwork activities during construction that could potentially result in erosion and sedimentation of runoff offsite.	LSM	N	LSM	LSM
Impact HYD-2: The proposed project would increase the amount of impervious surfaces on the site which would result in higher levels of surface runoff, potentially increasing erosion and flood hazards downstream.	LSM	N	LSM	LSM
Impact HYD-3: The proposed project would increase stormwater runoff leaving the site which could potentially result in impacts to water quality downstream in receiving waters.	LSM	N	LSM	LSM
Impact HYD-4: The proposed project would reduce the amount of pervious surfaces on the site which could reduce the amount of groundwater recharge at the site.	LS	N	LS	LS
Impact HYD-5: The increased construction activity and new development resulting from the project, in conjunction with other past, present and reasonably foreseeable projects in the area would not result in substantial adverse cumulative impacts with respect to hydrology and water quality.	LS	N	LS	LS
G. Noise				
Impact NOI-1: Project construction could expose persons to or generate noise levels in excess of standards	LSM	N	LSM	LSM
NOI-2: Operation of the proposed project would not expose persons to or generate noise levels in excess of standards established in the local general plans or noise ordinances, or applicable standards of other agencies.	LS	N	LS	LS
NOI-3: Traffic associated with operation of the project would result in an increase in ambient noise levels on nearby roadways used to access the project site.	LS	N	LS	LS
NOI-4: The proposed project, together with anticipated future development in the area, could result in long-term traffic increases that could cumulatively increase noise levels.	LS	N	LS	LS
H. Air Quality				
Impact AIR-1: Project construction would not violate air quality standards or contribute substantially to an existing or projected air quality violation during the short-term duration of construction.	LSM	N	LSM	LSM
Impact AIR-2: Project operation would violate air quality standards or contribute substantially to an existing or projected air quality violation during long-term operation.	LS	N	LS	LS
Impact AIR-3: The project would not conflict with implementation of state goals for reducing greenhouse gas emissions and therefore would not result in a significant impact with respect to GHG emissions or climate change.	LS	N	LS	LS
Impact AIR-4: The proposed project together with anticipated future development in the area could result in long-term traffic increases and could cumulatively increase regional and localized air pollutant emissions and conflict with goals of the MBUAPCD.	LS	N	LS	LS

Legend

LS	Less than significant or negligible impact; no mitigation required
LSM	Less than significant impact, after mitigation
SU	Significant and unavoidable adverse impact, after mitigation
N	No impact
B	Beneficial

TABLE 5-1 (Continued)
SUMMARY OF IMPACTS: PROJECT AND ALTERNATIVES

NOTE: Significance levels shown in the table reflect levels of significance after mitigation and indicate maximum impact during buildout and operation, unless otherwise specified.	Project	No Project	Two-Story	Off-Site
I. Public Services and Recreation				
Impact PS-1: The increased daytime population resulting from the project would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for police protection services, but would result in increased demand for police services.	LSM	N	LSM	LSM
Impact PS-2: The increased daytime population resulting from the proposed project would increase demand for fire protection and emergency medical services, but would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for fire protection and emergency medical services and facilities.	LS	N	LS	LS
Impact PS-3: Any increase in students indirectly generated by the proposed project would not require new or physically altered school facilities in order to maintain acceptable service ratios or other performance objectives at local public schools.	LS	N	LS	LS
Impact PS-4: The project would not result in increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of these facilities would occur or be accelerated, nor would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	LS	N	LS	LS
Impact PS-5: Development of the proposed project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts to the provision of public services.	LS	N	LS	LS
J. Other Issues				
Agricultural Resources	LS	N	LS	LS
Cultural Resources	LSM	N	LSM	LSM
Hazards and Hazardous Materials	LS	N	LS	LS
Mineral Resources	LS	N	LS	LS
Population and Housing	LS	N	LS	LS
Urban Decay	LS	N	LS	LS
Utilities and Service Systems	LS	N	LS	LS

Legend

LS	Less than significant or negligible impact; no mitigation required
LSM	Less than significant impact, after mitigation
SU	Significant and unavoidable adverse impact, after mitigation
N	No impact
B	Beneficial

CHAPTER 6

Other Statutory Sections

Consistent with CEQA Guidelines Section 15126.2, this section summarizes the findings with respect to the project's growth-inducing effects, significant irreversible environmental changes, cumulative impacts (when considered with other projects), significant unavoidable environmental, and effects found to be less than significant.

A. Growth-Inducing Effects

The CEQA Guidelines require that an EIR evaluate the growth-inducing impacts of a proposed action (Section 15126.2[d]). A growth-inducing impact is defined by the CEQA Guidelines as:

[T]he 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 It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement would result if a project involved construction of new housing. A project can have indirect growth-inducement potential if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial or governmental enterprises) or if it would involve a substantial construction effort with substantial short-term employment opportunities and indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. Increases in population could tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. The CEQA Guidelines also require analysis of the characteristics of projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

The proposed project does not involve construction of new housing or require a large number of new employees – permanent or during construction – that would warrant new housing be constructed. The proposed project would have a workforce of approximately 292 full-time employees. These new positions are not likely to attract new employees to Scotts Valley because the retail jobs created do not typically provide wages high enough to induce relocation. As such, jobs at the site would likely be filled by existing residents of Scotts Valley and the Santa

Cruz/San Jose Area. Therefore, the project would not result in a substantial increase in housing demand in the City or region.

Although the proposed project would increase the daytime population of the site compared to existing conditions, for the reasons discussed above this increase would not be considered substantial. Furthermore, the project would not displace nor introduce a substantial number of new residents to the site. Therefore, the project's impact on population would not be considered significant, nor would the project contribute to any potential cumulative effects related to population, as the project would not result in displacement of housing nor create an unmet housing demand.

In addition, the proposed project does not propose new infrastructure that would induce substantial growth in the project vicinity that was not previously considered for development. The project, like other future development in the project vicinity, would connect to existing utilities and occur within an urban area adequately served by transportation systems and infrastructure. No utility or transportation system improvements are required to accommodate future growth associated with the proposed project.

In conclusion, the proposed project would not result in growth-inducing effects on the environment, directly or indirectly.

B. Significant Irreversible Changes

CEQA Guidelines Section 15126.2(c) specifies that the EIR shall discuss the significant irreversible environmental changes associated with a project relevant to land use changes, nonrenewable resources, and environmental accidents.

Changes that Commit Future Generations to Similar Uses. The proposed project would change the current use of the site from a vacant lot to a retail store. It is speculative to assume the proposed project site would continue in the same use beyond the useful life of the proposed store building; the project does not introduce a land use that could not be changed or "reversed" in the future. Thus, the project will not commit future generations to similar uses.

Use of Nonrenewable Resources. The proposed project would consume natural resources (gasoline, sand and gravel, asphalt, oil, etc.) during construction activities. During operation of the new building, energy would be consumed for lighting, heating/cooling, and transportation. Neither the construction nor operation and use of the project would consume nonrenewable resources in amounts substantially different or greater than typical urban development or similar land uses. The proposed project would not affect agricultural resources or mineral resources or access to such resources. Therefore, the project will not involve a large commitment of nonrenewable resources.

Irreversible Damage from Environmental Accidents. The proposed project may include storage of hazardous materials such as cleaning products and other retail products which would not be regarded as sufficient to create a significant hazard to the public. All hazardous materials

would be subject to existing storage, handling, and disposal regulations that limit the potential exposure to workers and the public.

C. Cumulative Impacts

CEQA defines cumulative impacts as two or more individual impacts which, when considered together, are substantial or which compound or increase other environmental impacts. The cumulative analysis is intended to describe the “incremental impact of the project when added to other, closely related past, present, or reasonably foreseeable future projects” that can result from “individually minor but collectively significant projects taking place over a period of time.” (CEQA Guidelines Section 15355) The analysis of cumulative impacts is a two-phase process that first involves the determination of whether the project, together with existing and reasonably foreseeable projects, would result in a significant impact. If there would be a significant cumulative impact of all such projects, the EIR must determine whether the project’s incremental effect is cumulatively considerable, in which case, the project itself is deemed to have a significant cumulative effect. (CEQA Guidelines Section 15130)

The cumulative impact analyses are based on existing conditions and a growth scenario that incorporates approved, pending and proposed projects within the vicinity of the project. The analysis of each environmental topic included in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, of this SEIR evaluates possible cumulative impacts considering these other projects.

This SEIR considers, in its cumulative analyses, newly approved projects and pending and foreseeable projects that were not included in the cumulative analyses in the 2005 EIR. Notably, since the 2005 EIR was certified, the City has approved the Town Center Specific Plan, for a 59-acre area on Mount Hermon Road. The Specific Plan calls for development of 310,000 square feet of retail and commercial uses (including a new Scotts Valley Library) and 300 dwelling units in a mixed-use configuration that would also include about 1,475 parking spaces and about 21,850 square feet of open space. In addition, the City has approved a Holiday Inn Express hotel of up to 119 rooms at 5030 Scotts Valley Boulevard. Each of these projects, as well as other approved, pending, and foreseeable projects, has been considered as part of the cumulative analysis in this SEIR. A list of cumulative projects is presented in **Appendix G**.

Cumulative traffic impacts were identified in this SEIR. These cumulative impacts assumed that even accounting for the project-required mitigation (i.e., Mitigation Measures TRAN-8a through TRAN-8c) to transportation infrastructure, the project’s impacts are cumulatively considerable and not fully mitigable. No other significant cumulative impacts were identified for the project when considered with other related past, present, and reasonably foreseeable projects.

D. Significant and Unavoidable Environmental Impacts

In accordance with CEQA Section 21083, and with CEQA Guidelines Sections 15064 and 15065, an EIR must also identify impacts that could not be eliminated or reduced to an insignificant level by mitigation measures included as part of the implementation of the proposed project, or by other mitigation measures that could be implemented, as described in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*.

Implementation of the proposed project would result in the following significant and unavoidable impact that cannot be mitigated to a less-than-significant level:

Impact TRAN-2c: The addition of project-generated traffic would degrade operations on the eastbound approach at the unsignalized intersection of La Madrona Drive / Alenitas Road from an acceptable LOS C or better to an unacceptable LOS D or worse during the AM, PM and Saturday peak hours.

Impact TRAN-2d: The addition of project-generated traffic would degrade operations on the southbound approach at the unsignalized intersection of Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps from an acceptable LOS C to an unacceptable LOS D during the PM peak hour.

Impact TRAN-5a: The addition of project-generated traffic would substantially increase the queue of vehicles in the northbound left-turn lane at the intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp.

Impact TRAN-5b: The addition of project-generated traffic would substantially increase the queue of vehicles in the westbound left-turn lane at the intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound off-ramp.

Impact TRAN-8a: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / Scotts Valley Drive would degrade the prevailing unacceptable operations during the AM, PM and Saturday peak hours.

Impact TRAN-8b: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / La Madrona Drive – SR 17 Southbound Off-Ramp would degrade the prevailing acceptable operations during the PM and Saturday peak hours.

Impact TRAN-8c: The addition of project-generated traffic to Cumulative Baseline volumes at the signalized intersection of Mt. Hermon Road / Kings Village Road would degrade the prevailing acceptable operations during the PM and Saturday peak hours.

Impact TRAN-8d: The addition of project-generated traffic to Cumulative Baseline volumes on the eastbound approach at the unsignalized intersection of La Madrona Drive / Alenitas Road would degrade the prevailing acceptable LOS during the AM, PM and Saturday peak hours.

Impact TRAN-8e: The addition of project-generated traffic to Cumulative Baseline volumes on the southbound approach at the unsignalized intersection of Mt. Hermon Road / El Rancho Drive – SR 17 northbound ramps would worsen the prevailing unacceptable LOS during AM, PM and Saturday peak hours.

It should be noted, that although mitigations identified for Impact TRAN-8a through TRAN-8e would reduce the project's contribution to delay at these intersections, it is City policy to call an intersection operating at Level of Service (LOS) D or worse, a significant impact.

E. Effects to Be Less than Significant

As required by CEQA, this EIR focuses on expected significant or potentially significant environmental effects (CEQA Guidelines Section 15143). In accordance with Section 15128 of the CEQA Guidelines 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.

The environmental effects of the proposed project are identified and discussed in detail in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, and summarized in the Chapter 2, *Summary*. Except for the significant unavoidable effects to transportation, identified above, the environmental effects of the proposed project would be less than significant, or less than significant after implementation of the identified mitigation measures. The following categories of impacts were determined, after any mitigation, to be less than significant:

- Aesthetics
- Air Quality, including Greenhouse Gases
- Biological Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Agricultural Resource
- Cultural Resources
- Geology and Soils
- Land Use
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Urban Decay
- Utilities and Service Systems

CHAPTER 7

Report Preparation

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