EXHIBIT A

Summaries of Project History and Environmental Impact Report (EIR) Process
PUD-25, Lund Ranch II

PROJECT HISTORY

First Application

On September 24, 2002, Greenbriar Homes submitted its application for PUD Rezoning and Development Plan approval on the Lund Ranch II property for 113 single-family homes on approximately 12,000-square-foot lots. Based on this plan, City staff determined on September 3, 2003 that an Environmental Impact Report (EIR) would be necessary to address the environmental impacts and mitigation measures of developing the Lund Ranch II property, and recommended the consulting firm, Geier & Geier, be awarded the contract to prepare the EIR.

Environmental Impact Report

City Council Hearings on the EIR Consultant Contract

The City Council discussed the EIR consultant's contract at its public meetings held on May 20, 2003 and June 3, 2003. The City Council awarded the contract and directed the applicant and staff to consider increasing the proposed project's density as a means of adding an affordable housing component to the proposal with the larger, i.e., lower density homes, on the project's perimeter with a central area for the smaller, i.e., higher density, homes.

Planning Commission Scoping Session on the EIR

On September 24, 2003, the Planning Commission held its public meeting to gather public comment on the scope and content of the EIR for the Lund Ranch proposal. A summary of the public comments expressed at the scoping session include:

- Affordable and low-income housing;
- Inadequate disclosures to the residents of the Bridle Creek development;
- Loss of habitat areas, rangeland, trees and vegetation;
- Grading and erosion;
- Noise;
- Parks and open space;
- Placement of houses;
- School impacts;
- Traffic impacts to surrounding streets including access and pedestrian safety;
- Views; and,
- Water quality.

Based on that first application and on the comments received at the scoping session, the Planning Commission directed staff and/or the applicant to address the following issues with the project and/or the EIR:

- Address the potential transfer of the unused development rights from the Lund Ranch property to other properties in Pleasanton;
- Address the proposed buildings on ridges;
- Address construction routes and possible neighborhood traffic calming measures;
- Consider alternative access points such as Kottinger Ranch, Bonde Ranch, and Ventana Hills;
- Concern regarding major grading and tree loss;
- Concern regarding potential impact to the City's Urban Growth Boundary Line;
- Analyze the proposed project according to the General Plan;
- Consider an off-site project alternative, such as the Hacienda Business Park, for this development;
- Consider the cumulative impacts on air quality and energy; and,
- Address amenities if the project density exceeds the General Plan midpoint density of 83 units.

Second Application

On April 3, 2007, Greenbriar Homes submitted its response to the comments made by the City Council and Planning Commission with a revised PUD Development Plan that consisted of three alternative PUD Development Plans:

- Alternative A for 149 units in response to the City Council's direction for increased density. The development alternative included 149 units with 43 units designed as "cluster homes" (five detached homes on 3,000 square foot lots served by a motor court), 23 units on 4,000- to 6,000-square-foot lots, and 79 units on 12,000- to 40,000-square-foot lots. The proposed 149-unit alternative proposed to utilize the 25-percent density bonus (Policy 11, Page 2-32) of the Pleasanton General Plan "for the provision of significant affordable housing." The entire 149-unit development with streets and related improvements was located on approximately 71 acres.

- Alternative B for 107 units on 17,000-square-foot to 60,000-square-foot lots including 16 lots designated as potential duet-style lots for below-market rate housing and 4 lots designated as split-pad lots. The entire 107-unit development with streets and related improvements was located on approximately 71 acres with the remaining 114.7 acres.

- Alternative C for 82 units on approximately 14,000-square-foot to 60,000-square-foot lots, that would show the Lund Ranch II property developed at the mid-point density of the Pleasanton General Plan. The entire 82-unit development with streets and related improvements was located on approximately 64.9 acres.

The 149-unit, 107-unit, and the 82-unit development plan alternatives and supporting materials constituted the proposed project for PUD-25 that was to be evaluated in the project's Draft and Final EIR. The EIR review, however, was not completed. All three alternatives proposed to:

- Dedicate the remaining land area to the City of Pleasanton as permanent open space, with the proposed project's wildland fire management areas, public trails, and a public trail staging area.

- Provide public street connections to Livingston Way (Bonde Ranch development) and to Sunset Creek Lane and Sycamore Creek Way (Sycamore Heights) development, Emergency Vehicle Access (EVA) connections to Lund Ranch Road (Ventana Hills development) and Casterson Court (Kottinger Ranch development), and a future public street connection to the Foley property.

Third Application

Completion of the project review and the project's environmental review was delayed by the Pleasanton General Plan update and by the initiatives for Measures PP and QQ that addressed development in the City's hillside areas and defined the term "dwelling unit" for the General Plan.

<u>Alternative D</u>

After the City completed the General Plan update, the applicant in 2008 prepared a revised PUD Development Plan, Alternative D, with 77 lots designed to address Measure PP and Measure QQ. Alternative D used a Weighted Incremental Slope[1] (WIS) formula for the Lund Ranch II property. Staff evaluated and rejected the WIS formula as not being consistent with Measure PP, in that this slope averaging formula would include and, therefore, potentially allow development on slopes greater than 25 percent. Also, Alternative D did not incorporate the ridgeline setback of Measure PP[2] in its design.

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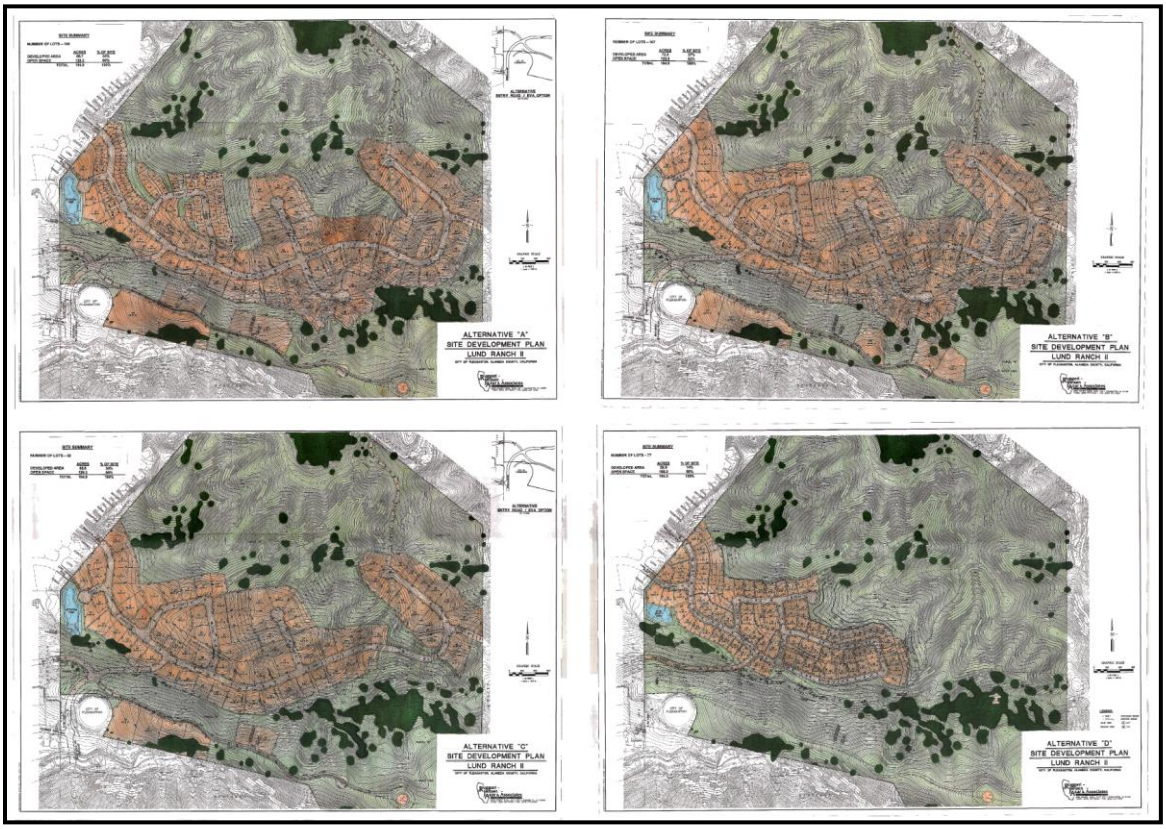
[1] The HPD (Hillside Planned Residential) District, Chapter 18.76 of the Pleasanton Municipal Code, uses a Weighted Incremental Slope formula to calculate average slope. The HPD District, however, predates the City's PUD Rezoning/Development Plan process and only applies to one developed property west of Foothill Road.

[2] Measure PP prohibits development within 100 vertical feet of ridgeline.

Figure 2, below, shows the four Development Plan alternatives that have been proposed for the development of the Lund Ranch II property.

Figure 2: Revised Development Plan with Alternatives



<u>Alternative E</u>

Staff continued to work with the applicant in the preparation and re-submittal of the proposed PUD Development Plan for the development of the Lund Ranch II property to address the policies and design criteria of Measure PP and Measure QQ. The result is the proposed PUD Development Plan submitted on September 16, 2012 with 50 units and related improvements on an approximately 33.8 acre portion of the project site and with the remaining 160.9 acres of the project site preserved as permanent open space.

The Alternative E PUD Development Plan constitutes the proposed project evaluated in the Final Environmental Impact Report (Final EIR) and that is now before the Planning Commission for its consideration.

ENVIRONMENTAL IMPACT REPORT (EIR) PROCESS

Following is a brief outline of the sequence of steps in the CEQA process for the 50-unit Lund Ranch II development proposal:

- Preparation of the Revised DEIR:
  An updated Notice of Preparation for the Lund Ranch II Revised DEIR was sent to the California State Clearinghouse on May 12, 2012. Chapter 4 of the Revised DEIR discusses the environmental setting and identifies the impacts and mitigation measures for each subject area. A summary of the subject areas including impacts and mitigation measures is covered in Chapter 2 of the Revised DEIR.

- Revised DEIR public review period.
  The City published the Revised DEIR on July 14, 2014. Copies of the Revised DEIR and the Notice of Completion were received by the California State Clearinghouse on July 15, 2014 beginning the 45-day review period mandated by the CEQA which ended on September 2, 2014 at 5:00 p.m. Copies of the Revised DEIR were distributed to the City Council, Planning Commission, City Divisions and Departments, and Federal, State, local agencies considered to be Responsible Agencies by CEQA, and was made available to the public.

- Planning Commission consideration of the DEIR.
  Consideration of the Revised DEIR by the Planning Commission and the public began during the public review period. Written comments from the public were solicited. The Planning Commission held a public meeting on August 27, 2014 to discuss the Revised DEIR and to receive public comment. No comments were received from the Responsible Agencies that were sent a copy of the Draft EIR.

- Preparation of Response to Comments and the Final EIR.
  The Response to Comments were completed and distributed to the City Council, Planning Commission, and the public beginning on January 13, 2015. The Response to Comments and the Revised DEIR constitute the Final EIR for the Lund Ranch II development.

REVISED DRAFT
ENVIRONMENTAL IMPACT REPORT

LUND RANCH II
PUD-25
1500 LUND RANCH ROAD

STATE CLEARINGHOUSE # 2003092021

PREPARED BY
GEIER & GEIER CONSULTING, INC.

IN ASSOCIATION WITH
FEHR & PEERS TRANSPORTATION CONSULTANTS
WILLIAM KANEMOTO & ASSOCIATES
MOSAIC ASSOCIATES, LLC
WILDLAND RESOURCES MANAGEMENT, INC.
WALTER LEVISON

UNDER CONTRACT TO

THE CITY OF PLEASANTON

REVISED
JULY 2014

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CHAPTER 1 INTRODUCTION

1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

This Draft Environmental Impact Report (EIR) has been prepared for the City of Pleasanton in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended), State CEQA Guidelines, and City of Pleasanton CEQA Guidelines. CEQA requires the preparation of a full disclosure document to inform the public, Lead Agency, and Responsible/Trustee Agencies of the direct and indirect environmental effects of the proposed project on the local and regional environment. This document must also provide alternatives to the project and must suggest potentially feasible mitigation measures that could reduce or eliminate any identified potential significant impacts.

1.2 CEQA EIR PROCESS

This EIR assesses the environmental impacts of a proposed Planned Unit Development (PUD) development plan, which would allow construction of 50 residential units on the 195-acre Lund Ranch II property. Approval of the PUD application would allow construction of residential uses on approximately 23 acres. Proposed gross density for the site would be 0.26 dwelling units per acre. Residential units would be comprised of 48 single-family detached homes on 10,000 square-foot minimum lots and two homes on 13.9 acres (Estate Lots).

1.2.1 INITIAL STUDY AND NOTICE OF PREPARATION

In accordance with Section 15063 of the CEQA Guidelines, the City of Pleasanton, as Lead Agency, has initiated the environmental review process for the Lund Ranch II project through the preparation of an Initial Study to assess the potential for significant impacts on the environment. Upon completion of the Initial Study (January 16, 2003), the City determined that the proposed project, including mitigation measures to be incorporated into the project, would have a significant effect on the environment. Consequently, the City required the preparation of an EIR that focused further analysis on those issues where there may be significant impacts on the resources of the community. On September 24, 2003, the Planning Commission held a public meeting to solicit input for the scope and content of the EIR for the Lund Ranch proposal.

In addition to the 2003 public scoping meeting, an Initial Study (IS) and Notice of Preparation (NOP) were prepared and circulated for the Lund Ranch project. The Initial Study determined that the project could result in significant impacts on the environment, although some of the project's potential impacts were determined to be less than significant. Based upon the issues and topics raised in response to the scoping process, the preparation of an EIR was started in early 2003. The environmental review process was suspended due to the need for an update to the Pleasanton General Plan and by referenda for Measures PP/QQ to address the issue of development in the City's hillside areas.

With the completion of the General Plan Update and the approval of the hillside development guidelines, the project applicant has resubmitted an application for the development of a residential subdivision under the City's PUD zoning process.

The NOP for this EIR was issued on May 1, 2012. The NOP was circulated to local, state, and federal agencies and other interested parties. The 2003 Initial Study and current Notice of Preparation (NOP) are included as Appendix A of this document.

It should be noted that the topics and issues included for evaluation in an Initial Study have changed since the original Initial Study for this project was prepared, e.g. Greenhouse Gases, Climate Change, etc. For the purposes of this EIR, the analyses of issues address all of the original concerns raised during scoping process for the project and include required environmental evaluation for issues that have arisen since 2003. Furthermore, the assessment of environmental effects for all issues is based upon current regulatory guidance requirements. As indicated above, the current NOP provides sufficient notice of the proposed project actions to Responsible Agencies and the general public and provides another opportunity for further input from these agencies and the community to identify issues of concern.

The City's Initial Study identifies specific environmental issues that require detailed and comprehensive evaluation in the EIR. All impacts identified by the Initial Study as less than significant or mitigated to a less-than-significant level will not require any further analysis in the EIR. Pursuant to CEQA Section 15063(c)(3), the EIR for the proposed project focuses on the following environmental topics that were identified in the Initial Study: land use and planning, aesthetics, biological resources, geology and soils, hydrology and water quality, transportation and circulation, noise, air quality, cultural resources, and public services (including wildland fire hazards). Given the presence of hazardous materials previously identified on the site, a Hazards section has also been included in this EIR. Of the remaining topics, the City's Initial Study excluded the evaluation of the following environmental topics and concludes impacts would be less than significant: utilities, growth-inducing impacts, and energy.

In addition to the preparation of an Initial Study and City staff review, the City provided community residents and interested parties with the opportunity to comment on the proposed scope of analyses for the EIR during a Planning Commission hearing on September 24, 2003. As a result of comments raised by neighbors at this meeting, the scope of the EIR was expanded to address: increased air quality and noise impacts on local neighborhood streets. Also, since completion of the 2003 Initial Study, the CEQA Guidelines were amended to include evaluation of a project's greenhouse gas emissions and impacts on climate change. Therefore, this EIR evaluates the following additional topics: air quality, greenhouse gas emissions, and noise.

1.2.2 SCOPING

Subsequent to circulation of the Initial Study and NOP, responses to the NOP and comments during the Planning Commission scoping meeting were received from numerous members of the community and the following public agencies:

- Alameda County Flood Control and Water Conservation District, Zone 7
- Alameda County Congestion Management Agency
- California Department of Transportation (Caltrans)
- California Regional Water Quality Control Board, San Francisco Bay Region
- U.S. Department of Transportation, Federal Aviation Administration

The comments provided by these responding agencies are include in Appendix A of this EIR. As a result of comments received from community residents responding to the NOP, the scope of environmental review for the project was amended to analyze potential effects for two additional issues: air quality and noise. These issues as well as those already identified in the 2003 Initial Study are addressed in this EIR.

1.2.3 DRAFT EIR

This document constitutes the Draft EIR. It contains a description of the project, description of the environmental setting (existing conditions), identification of project impacts and mitigation measures for impacts found to be significant or potentially significant, and an analysis of project alternatives. This EIR addresses the issues that were identified by the Initial Study as potentially significant environmental impacts of the project as well as issues that were raised in the responses to the Notice of Preparation.

Significance criteria vary for each environmental issue analyzed in this EIR and are defined at the beginning of each impact analysis section. Impacts are categorized as follows:

- Significant and Unavoidable (no feasible mitigation or mitigation does not reduce impact to a less-than-significant level)

- Potentially Significant (impacts that could occur but can be mitigated to a less-than-significant level)

- Less than Significant (no mitigation required under CEQA, but may be recommended)

Significance is the basis for determining whether or not mitigation is required for a potential project impact. CEQA requires that, under most circumstances, a lead agency shall neither approve nor carry out a project as proposed unless the significant environmental effects have been reduced to an acceptable or less-than-significant level (CEQA Guidelines Sections 15091 and 15092). Mitigation is required for impacts that are significant and must, when implemented, accomplish a reduction of the impacts to a level that is less than significant. A less-than-significant or acceptable level is defined as eliminating, avoiding,

or substantially lessening the significant effects. Under certain circumstances, the lead agency may allow significant, unavoidable impacts to occur.

1.2.4 PUBLIC REVIEW

The information in this report is subject to review by the City, responsible and interested agencies, as well as the public for a period of 45 days. Publication of this Draft EIR marks the beginning of the public review period, during which written comments will be received by the City of Pleasanton at the following address:

Marion Pavan
City of Pleasanton
Department of Planning and Community Development
200 Old Bernal Avenue
Pleasanton, CA 94566-0802

During this 45-day review period, persons are encouraged to comment on the contents of the Draft EIR in writing to the Pleasanton Community Development Department.

1.2.5 FINAL EIR AND EIR CERTIFICATION

Following the close of the 45-day review period, relevant written and oral comments received on the Draft EIR will be responded to in writing in a Comments and Responses document. The Comments and Responses document, together with the Draft EIR, will constitute the Final EIR. After circulation of the Final EIR, the Planning Commission and City Council will hold public hearings on the Final EIR to consider EIR certification. Upon EIR certification, the City may proceed with project approval actions.

If the lead agency approves the project with significant unavoidable impacts, the agency must state in writing the reasons for its actions. A Statement of Overriding Considerations must be included in the record of project approval and mentioned in the Notice of Determination (CEQA Guidelines 15093.c).

1.2.6 MITIGATION MONITORING AND REPORTING

In January 1989, California enacted Assembly Bill (AB) 3180 (Cortese Bill), which requires lead agencies to “adopt a reporting and mitigation monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.” Any measures adopted by the City as conditions for approval of the project will be included in a Mitigation Monitoring and Reporting Program to verify compliance.

1.3 EIR ORGANIZATION

The Draft EIR has been organized into the following sections:

Chapter 1, Introduction. This section describes the purpose of the EIR, the CEQA review and certification process, and organization of the EIR.

Chapter 2, Summary. This section summarizes the project description, significant environmental impacts that would result from project implementation, and mitigation measures proposed as part of the project or recommended by the EIR to reduce or eliminate impacts.

Chapter 3, Project Description. This section describes the project location and project sponsor's objectives, as well as providing a detailed project description.

Chapter 4, Setting, Potential Impacts, and Mitigation Measures. These sections describe existing conditions in the vicinity of proposed facilities, discuss project consistency with relevant local plans and policies, identify the environmental impacts associated with project construction and operation, and present mitigation measures for the six issue areas studied by this Draft EIR.

Chapter 5, Alternatives. This section discusses alternatives to the proposed project, describes potential environmental effects associated with the alternatives under consideration, and identifies the environmentally superior alternative.

Chapter 6, Other CEQA Considerations. This section discusses several issues required by CEQA, including significant unavoidable impacts, growth inducing impacts, and cumulative impacts.

Chapter 7, Lead Agency and Consultants. This section identifies City staff and consultant personnel responsible for the preparation of the EIR.

Chapter 8, Appendices. The appendices provide relevant reference material and data that support discussions in the EIR. In addition, the appendices contain the Initial Study and report authors and consultants.

CHAPTER 2 SUMMARY

2.1 PROJECT DESCRIPTION

GHC Lund Ranch LLC is requesting approval of a Planned Unit Development (PUD) development plan, which would allow the construction of a total of 50 residential units on the 195-acre Lund Ranch II property. The project site is presently designated for Rural Density (1 dwelling unit per 5 gross acres) and Low Density (less than 2 dwelling units per gross acres) Residential uses. The subject property is zoned "PUD-LDR/OS," Planned Unit Development – Low Density Residential) District.

Approval of the PUD application would result in the development of residential uses on approximately 22.7 acres of the Lund Ranch site. The proposed gross residential density for the site would be 0.26 dwelling units per acre.The development proposal also includes the extension of Lund Ranch Road from its present terminus at the Lund Ranch property boundary to the southeast for approximately 1,500 feet onto the property. The proposed extension of this roadway would also entail the construction of three cul-de-sacs to serve the planned residential uses on the Lund Ranch site. Additionally, two driveways would be constructed from the ends of "Court C" and the Lund Ranch Road to provide access to the two estate lots proposed as part of this project.

The project plans designate the majority of the Lund Ranch property for open space uses. Approximately 161 acres (83%) of the site would be dedicated for public open space use, while 11.1 acres of the two estate lots would be undeveloped private open space area. The public open space would be owned by the City and maintained by either the City of the development's homeowners' association (HOA).

The project also provides access to the public open space with the development of trails that would extend from the ends of Sunset Creek Lane, Sycamore Creek Way, and the proposed Lund Ranch Road extension. The trails would generally follow an existing unpaved road from the western side of the property, cross the site's creek east of the proposed Lund Ranch subdivision, and climb to ridges on the eastern and northern portions of the subject property. The trails would end at the Foley property on the eastern edge of the project site and at its boundary with the Bonde Ranch property on the north. The latter trail terminus is proposed to connect with a trail that crosses the Bonde Ranch property.

The proposed project would be responsible only for trail construction on Lund Ranch property and for a short trail section (approximately 300 feet) that traverses the City's water reservoir site at the end of Sycamore Creek Way. The proposed Trail Plan includes the construction of a foot bridge across the site's creek channel immediately east of the future Lund Ranch Road cul-de-sac.

The following discussion includes a detailed description of the proposed project facilities, with additional information concerning residential and recreational uses, access, grading, landscaping, and other project improvements.

2.2 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION

Based on analysis of the proposed project, technical studies completed by the applicant's consultants, City staff review, City-contracted peer review, and environmental consultant review, the project would not result in any significant environmental impacts that could not be mitigated to a less-than-significant level with recommended mitigation measures. Chapter 4 of the Draft EIR presents a description of the existing environmental setting, an analysis of environmental impacts resulting from development of the proposed project, and required or proposed mitigation measures. These impacts and mitigation measures are summarized in **Table 2-1**. Impacts are identified as either "Less Than Significant With Mitigation," "Less Than Significant," or "No Impact." If an impact is Less Than Significant With Mitigation, mitigation measures are identified to reduce the potentially significant impact to less-than-significant levels. Within Chapter 5 of the Draft EIR, Table 5-1 addresses the extent to which alternatives to the proposed project would mitigate the potentially significant effects found to be less than significant with mitigation associated with the proposed project.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

All significant and potentially significant impacts that are identified in this EIR for the proposed project would be mitigated to less-than-significant levels by mitigation measures specified in this EIR. Therefore, the project would not result in any significant unavoidable adverse impacts.

GROWTH-INDUCING IMPACTS

As required by Section 15126.2 (d), an EIR must discuss ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. The EIR must also discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or precedents that directly or indirectly encourage additional growth.

In general, a project may foster growth in a geographic area if the project removes an impediment to growth (e.g., the establishment of an essential public service, the provision of new access to an area, a change in zoning or general plan approval); or economic expansion in response to the project (e.g., changes in revenue base, employment expansion etc.). These circumstances are further described below:

- Elimination of Obstacles to Growth: This refers to the extent to which a proposed project removes infrastructure limitations or provides infrastructure capacity, or removes regulatory constraints that could result in growth unforeseen at the time of project approval.

TABLE 2-1

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
Land Use		
4.1-1: The project proposes to develop residential uses at densities that are consistent with the average densities assumed for buildout of the General Plan.	Less than Significant	None Required
4.1-2: The project would alter former and existing land uses on the site.	Less than Significant	None Required
Aesthetics		
4.2-1: The project development would potentially affect hillside views from Bernal Community Park (Pleasanton Avenue), Bernal Avenue, and Valley Floor viewpoints.	Less than Significant	None Required
4.2-2: The project development would potentially affect hillside and ridgeline views from Hopkins Way viewpoints.	Less than Significant	None Required
4.2-3: The project development would potentially affect hillside and ridgeline views from Lund Ranch Road.	Impacts to Views, but at Less than Significant Levels	None Required
4.2-4: The project could potentially affect nearby views from viewpoints in the vicinity of Livingston Way, Middleton Place and Livingston Place.	Impacts to Views, but at Less than Significant Levels	None Required
Biological Resources		
4.3-1: Project construction would result in a loss of oak woodland/savanna habitat and would require the removal of 146 trees, including 80 Heritage trees.	Less than Significant with Mitigation	**Mitigation Measure 4.3-1a:** An Oak Woodland Restoration and Management Plan shall be prepared by a qualified biologist and submitted to the City prior to the issuance of a Grading Permit. This Plan shall include provisions to: ▪ Maximize the diversity of plants and animals native to oak woodlands of the region; ▪ Encourage natural regeneration of native oaks (including blue oaks, valley oaks and coast live oaks) within undeveloped portions of the project site; ▪ Reduce fire hazards during the dry season; and ▪ Restrict livestock grazing. The oak woodland management plan would address tree replacement requirements as stipulated through City consultation with the CDFW for the project. Presently, the CDFW generally specifies a replacement ratio of 3:1 for the replacement of native oaks, regardless of the lost trees' positions relative to the riparian zone. The management plan should include restrictions on livestock grazing to ensure natural regeneration of oaks within the open space areas.

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		Mitigation Measure 4.3-1b: The relevant provisions of the City of Pleasanton's Tree Ordinance, including acquisition of a tree removal permit (Section 17.16.020), reporting requirements for new property development (Section 17.16.050) and protection of existing trees (Section 17.16.070) should be implemented. The Oak Woodland Restoration and Management Plan discussed above should indicate the ratio, location, species, source of plant material and timing for planting. It shall also describe plans for maintenance and irrigation. Heritage trees should be replaced at a ratio consistent with the City's tree ordinance with small nursery stock. These ratios shall compensate for habitat values lost from the removal of mature trees. Planting time between November and January is recommended. To preserve the genetic integrity of trees of the site, acorns and seeds to be propagated should be collected on-site. A minimum maintenance and irrigation time of three years is recommended. In order to optimize tree preservation on-site, the following measures formulated by HortScience shall be implemented to protect trees that are proposed to be retained: <u>Design Recommendations</u> 1. Verity the location and tag numbers of all trees within 25 feet of the proposed construction areas. 2. Allow the Consulting Arborist to review all future project submittals including grading, utility, drainage, irrigation, and landscape plans. 3. Prepare a site work plan which identifies access and haul routes, construction trailer and storage areas, etc. 4. Establish a Tree Protection Zone around each tree to be preserved. For design purposes, the Tree Protection Zone shall be the edge of grading. No grading, excavation, construction or storage of materials shall occur within that Zone. 5. Install protection around all trees to be preserved, to be located three feet outside the limit of grading. No entry is permitted into a Tree Protection Zone without permission of the project superintendent. 6. Route underground services including utilities, sub-drains, water or sewer around the Tree Protection Zone. Where encroachment cannot be voided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury. 7. Use only herbicides safe for use around trees and labeled for that use, even below pavement. 8. Design irrigation systems so that no trenching shall occur within the Tree Protection Zone. <u>Pre-Construction and Demolition Treatments and Recommendations</u> 1. The demolition contractor shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection. 2. Trees to be removed shall be felled so as to fall away from Tree Protection Zone and avoid pulling and breaking of roots of trees to remain. If roots are entwined, the consultant may require first severing the major woody root mass before extracting the

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		trees, or grinding the stump below ground. Tree Protection During Construction 1. Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures. 2. Any grading, construction, demolition or other work that is expected to encounter tree roots should be monitored by the Consulting Arborist. 3. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied. 4. Fences shall be erected to protect trees to be preserved. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the project superintendent. 5. Construction trailers, traffic and storage areas must remain outside fenced areas at all times. 6. No materials, equipment, spoil, waste or wash-out water may be deposited, stored, or parked within the Tree Protection Zone (fenced areas). **7.** Any additional tree pruning needed for clearance during construction must be performed by a qualified arborist and not by construction personnel. 8. All trees shall be irrigated on a schedule to be determined by the Consulting Arborist. Each irrigation shall wet the soil within the Tree Protection Zone to a depth of 30 inches. 9. Any roots damaged during grading or construction shall be exposed to sound tissue and cut cleanly with a saw.
4.3-2: The project would result in the loss of habitat for the California tiger salamander and individual California tiger salamanders may be taken during construction of the project	Less than Significant with Mitigation	**Mitigation Measure 4.3-2a**: To mitigate for the loss of aestivation habitat and potential impacts to any aestivating California Tiger Salamander (CTS) on-site, the project applicant shall permanently preserve and manage potential CTS upland aestivation habitat located on the project site between the proposed development area and Pond 2, located on the adjacent Oak Grove property. The amount of such preserved and managed habitat shall be not less than the amount of land developed as a result of project construction (i.e., 1:1 acreage ratio). The applicant shall preserve such habitat through the recording of a deed restriction, conservation easement, or other equivalent instrument which precludes future development or the construction of physical barriers to the movement of CTS across the preserved habitat. The applicant shall also develop, and arrange for the implementation of a habitat management plan for the preserved habitat. Prior to the issuance of a grading permit, the applicant shall provide a copy of the recorded instrument (which will identify the precise size and location of the permanently preserved habitat), the habitat management plan and the federal and state take authorizations to the City. The applicant shall also provide copies of the incidental take authorizations secured for the project from the USFWS and CDFG to the City. **Mitigation Measure 4.3-2b:** To avoid and minimize the loss of individual California Tiger Salamander (CTS), the applicant shall be responsible for implementing the

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		following measures prior to and during construction: ▪ Prior to ground disturbance, an employee training program for operators/contractors shall be conducted by a qualified biologist to explain the endangered species concerns at the project site; ▪ Site grading shall be conducted outside of the rainy season months during which CTS would be breeding or migrating; ▪ A qualified biologist shall identify conduct a preconstruction survey prior to the onset of site grading. All suitable habitat features that may be used by aestivating CTS shall be identified, marked and mapped during the preconstruction survey. The removal or destruction of suitable habitat features shall be conducted under the direct supervision of the qualified biologist prior to the onset of site grading. Any observed CTS shall be turned over to the USFWS or CDFG personnel for relocation, or shall be relocated by a biologist possessing an Endangered Species Act 10(a)(1)(A) permit as directed by the USFWS and CDFG; ▪ Best Management Practices shall also be implemented to minimize the potential mortality, injury or other impacts to CTS. Any installed erosion control materials shall not include small-mesh plastic netting. All trash items shall be removed from the project site to reduce the potential for attracting predators of CTS, such as crows and ravens.
4.3-3: Project construction could disturb a maternity colony of bats and roosting special-status bats on the project site, resulting in the loss of individual bats or the abandonment of an active maternity colony.	Less than Significant with Mitigation	**Mitigation Measure 4.3-3:** The implementation of the following measures would ensure that maternity colonies of bats and roosting pallid bats and Townsend's big-eared bats would not be disturbed. a. A qualified biologist, knowledgeable about local bat species and experienced with bat survey methods, shall inspect all structures and trees that could support bats in the project area prior to the start of site disturbance (e.g. demolition, vegetation removal and earthwork). Surveys should be conducted during appropriate weather to detect bats (not in high winds or during heavy rain events). One daytime and up to two nighttime surveys (starting at least 1 hour prior to dusk) should be conducted to determine if bats are present. If bats are detected, additional surveys utilizing acoustic monitoring or other methods may be necessary depending on the recommendations of the bat biologist. b. Preconstruction surveys for bats should be conducted within two weeks prior to the removal of any trees or structures that are deemed to have potential bat roosting habitat. If bats are detected on-site and would be impacted by the project, then appropriate mitigation measures would be developed through City consultation with the CDFW. Mitigation measures would include one or more of the following methods: using one-way doors to exclude non-breeding bats, opening up roof areas of structures to allow airflow that would deter bats from roosting, and taking individual trees down in sections to encourage bats to relocate to another roost site. Typically this work is conducted in the evening when bats are more active, and this work should be conducted under the guidance of an experienced bat biologist.

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		c. Mitigation for impacts to a maternity bat roost, if detected, would be determined through consultation with CDFG and may include construction of structures that provide suitable bat roosting habitat (i.e. bat houses, bat condos) for the particular specie(s) impacted.
4.3-4: Project construction could adversely affect raptor and/or other migratory bird nesting activity on the project site, result in the loss of individual birds, eggs or nestlings, or the abandonment of active nests. Project construction could also result in the loss of occupied burrowing owl habitat if burrowing owls or signs of owls are observed within the project development area.	Less than Significant with Mitigation	**Mitigation Measure 4.3-4:** The implementation of the following measures would ensure that raptors (hawks and owls) and other migratory birds are not disturbed during the breeding season and that burrowing owls and occupied habitat are not taken at any time of year: a. A qualified ornithologist shall conduct a pre-construction survey for nesting raptors (including both tree and ground nesting raptors) and other migratory birds on-site within two weeks of the onset of site disturbance (e.g. demolition, vegetation removal and earthwork), if ground disturbance is to occur during the breeding season (February 1 to August 31). These surveys shall be based on the accepted protocols for the target species. These surveys shall explicitly consider the burrowing owl as a potential target species and pre-construction efforts shall be conducted according to the most recent protocol. If a nesting raptor or active nest of another migratory bird were to be detected, an appropriate no disturbance buffer would be established in consultation with CDFW. In general, no-disturbance buffers around active nests of raptors are 250-300 feet, while the buffers around the nests of passerines (perching) are 50 feet. The actual size of buffer would depend on species, topography, and type of construction activity that would occur in the vicinity of the nest. The location of no-disturbance buffers would be marked in the field and communicated to the construction team during the preconstruction environmental training meeting described above in Mitigation Measure 4.3-2b. b. A qualified ornithologist shall conduct pre-construction surveys for burrowing owls during the non-breeding season. Pre-construction surveys during the non-breeding season are not necessary for tree nesting raptors, as they are expected to abandon their roosts during construction. If pre-construction surveys (conducted either during the breeding or non-breeding season) determine that burrowing owls occupy the site, mitigation consistent with the Staff Report on Burrowing Owl Mitigation (CDFG, 2012) would be implemented. Mitigation measures may include take avoidance, site surveillance, minimizing impacts through the use of no disturbance buffers, burrow exclusion and closure (blocking burrows with one-way doors) and compensation for the loss of occupied habitat. These measures may be necessary to ensure that owls are not harmed or injured during construction, and that the loss of occupied habitat is mitigated. Mitigation for the loss of occupied habitat could be accomplished on or off the property, subject to approval of a mitigation land management plan by CDFG.
4.3-5: Project construction would require the filling of seasonal drainage channels and in-channel wetlands.	Less than Significant with Mitigation	**Mitigation Measure 4.3-5:** The proposed project would impact 0.022 acre of Waters of the United States (0.016 acre and 243 lineal feet of drainage channel waters, and 0.006 acre of in-channel wetlands). While compensation for Waters of the United States should occur at a minimum of a 1:1 replacement ratio, the CDFG and RWQCB generally

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		require a replacement ratio of 2:1 or better. To the degree possible, the applicant should replace lost wetland resources in kind. Thus, the project would create at least 243 feet (0.016 acre) of channel (1:1 ratio) and 0.006 acres of seasonal wetland on the Lund Ranch property. Creation of new channels can be logistically difficult as there are finite areas within a site to accomplish this type of mitigation. Therefore, some mitigation for the seasonal channel may have to be out-of-kind. This could be accomplished by creating additional seasonal wetlands. The creation of not less than 0.022 acre of wetland and/or seasonal channel would be required. The site supports sufficient opportunities to accommodate creation of wetland habitat. Even if the project could not create 243 feet of channel, there are a number of areas along Drainage Areas A and B and within the non-jurisdictional drainage swales on the site that could easily accommodate this type of creation mitigation. The goal of this mitigation should be to create new wetlands and enhance existing wetlands in a way that replaces the functions and values of the wetlands that are proposed to be filled. A qualified biologist should develop a restoration plan that identifies the full extent of the impact, location of suitable sites to create or enhance wetlands of the necessary acreage, and develop success criteria specific to the actual wetland creation design. The mitigation site should be monitored for at least five years. A detailed wetland restoration plan should be developed for this mitigation area during the regulatory permitting phase of the project. The plan will be subject to the review and approval of the USACE, RWQCB, CDFG and the City of Pleasanton. This plan should incorporate additional studies and details, including the following: ▪ Type and acreage of wetland to be impacted and goals for wetland creation ▪ Detailed assessment of soil suitability for wetland creation ▪ Description of site hydrology, including depth and duration of inundation, potential for scour or deposit of sediments, etc. ▪ Site preparation measures, including grading methods, to relieve compaction and/or ensure low potential for scouring of soils ▪ Revegetation and erosion control on slopes surrounding the mitigation site ▪ Description of buffer areas around the mitigation ▪ Maintenance program ▪ Long term monitoring program, including performance and success criteria. ▪ Measures to assure protection from human disturbance and to protect the area from development in perpetuity.
4.3-6: Development of the project could result in the degradation of water quality in seasonal drainages, and downstream waters and affect associated habitat quality.	Less than Significant	None Required
4.3-7: Project development would convert 12 percent of the site to urban uses.	Less than Significant	None Required

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
4.3-8: Project development would not interfere with corridor-type wildlife movements.	Less than Significant	None Required
Geology and Soils		
4.4-1: As is true for the entire region, the project would likely be subject to one or more severe earthquakes and associated seismic hazards during the life of the project.	Less than Significant with Mitigation	**Mitigation Measure 4.4-1a:** In general, landslide debris shall be removed where present and replaced with engineered fill in accordance with the approved corrective grading plan. More detailed information regarding the location, extent, and depth of the required landslide mitigation shall be depicted on the final project corrective grading plan to be submitted with the final grading plan, subject to review and approval by the City of Pleasanton Building and Safety Services Division. **Mitigation Measure 4.4-1b:** Landslide repairs shall be conducted on the natural slope behind Lots 24 and 25 (Landslide 17) and the proposed cut and fill slope adjacent to the driveway south of Lots 24 and 25 shall also be regarded. The finished slopes should be graded to approximately re-create the existing slope contours and to conform as much as possible with the adjacent natural slopes.
4.4-2: Construction of the project on steep slopes could result in soil erosion or the loss of topsoil.	Less than Significant with Mitigation	**Mitigation Measure 4.4-2a:** In the event of a work stoppage due to rain during construction, the contractor shall construct positive slopes to carry water surface runoff away from steep slopes to storm drainage structures or other areas where erosion can be controlled. In no event shall a completed slope be left standing through the winter season without erosion control features being provided. **Mitigation Measure 4.4-2b:** The onsite geotechnical engineer shall determine the depth of topsoil in the field during grading. Identified top soil shall be reserved and placed on graded slopes Excess top soil that is not suitable for use as engineered fill may be used in approved open space of landscape areas, if approved by the landscape architect. **Mitigation Measure 4.4-2c:** All landscaped slopes shall be maintained in a vegetated state after project completion using drought-tolerant vegetation requiring infrequent drip irrigation. No pressurized irrigations shall be placed at or near the tops of graded slopes.
4.4-3: Some residences would be constructed near slopes with colluvial materials. These slopes, and slopes constructed as part of the project, could become unstable and potentially result in on- or off-site damage.	Less than Significant with Mitigation	**Mitigation Measure 4.4-3a:** Debris catchment walls shall be constructed along the rear sides of the building pads on Lots 14, 15, and 22 through 25 where they border adjacent slopes. The walls shall be a minimum of 5 feet high and designed in accordance with the recommendations of the geotechnical exploration in regards to retaining walls. Walls may not be required if pad grading provides sufficient space via rear yard slopes or retaining walls. The final design of the walls or catchment area shall be reviewed by ENGEO when the detailed project plans are prepared. Proper access to the catchment areas shall be provided and all debris catchment walls or designated catchment areas shall be periodically maintained by removing and disposing of accumulated slope detritus. **Mitigation Measure 4.4-3b:** Debris catchment measures shall be constructed along Lots 5 and 25 which are located at the mouths of existing drainage courses. The catchment

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		measures shall include a minimum 5-foot berm placed across the mouth of the drainage with clog-resistant surface drainage inlets provided. The final dimensions, placement, and design shall be determined in the detailed project plans. **Mitigation Measure 4.4-3c:** The final corrective grading plans shall show detailed locations of keyways, subdrains, debris benches, and subexcavation areas. The sequence of grading issues, such as placement of various cut materials in specific locations, should also be evaluated during review of the final 40-scale grading plans. **Mitigation Measure 4.4-3d:** The Geotechnical Engineer or qualified representative should be present during all phases of grading operations to observe demolition, site preparation, grading operations, and subdrain placement. After grading operations commence, geologic observations of cut areas should be made at frequent intervals so that revised geologic recommendations can be incorporated into updated grading plans as grading proceeds. During slope grading, all cut slopes should be viewed by the Engineering Geologist for adverse bedding, seepage, or bedrock conditions that may affect slope stability. In the event that adverse conditions are identified, overexcavation and reconstruction of the slopes may be required. Track rolling to compact slope faces is not sufficient. All fill slopes should be overbuilt at least two feet and cut back to design grades. **Mitigation Measure 4.4-3e:** Keyways equipped with a subsurface drainage system shall be constructed. Each keyway shall be keyed into firm natural materials unaffected by shrinkage cracks. The keyway shall be filled with materials derived from the Livermore Gravels compacted to 95 percent relative compaction for non-expansive materials and 90 percent relative compaction for expansive materials. The required depth of the keyways shall be determined in the field by the geotechnical engineer during grading. Fill above the keyways shall be benched into firm, competent soil or bedrock and drained as appropriate. Unless otherwise recommended by the Geotechnical Engineer, benches shall be constructed at vertical intervals of not less than five feet. **Mitigation Measure 4.4-3f:** Subsurface drainage systems should be installed in all key ways, swales or natural drainage areas, and landslide removal areas in accordance with the recommendations of the geotechnical exploration. Depending on the actual conditions encountered during grading, similar subsurface drainage facilities may be recommended within existing stock ponds, springs, low-lying areas, or at lots where wet conditions are encountered during excavation. In addition, new sources of seepage may be created by a combination of modified topography, future irrigation practices, and potential utility leakage. If discovered, these conditions should be brought to the attention of the Geotechnical Engineer so that remedial actions may be initiated, if necessary. **Mitigation Measure 4.4-3g:** Structural retaining walls shall be constructed in accordance with the recommendations of the geotechnical exploration and provided with drainage facilities to prevent the buildup of hydrostatic pressures behind the walls. **Mitigation Measure 4.4-3h:** Where steeper slopes greater than 3:1 are desired, supplemental slope stabilization measures such as geogrid enforcement and/or the use of

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		select fill shall be employed. Drainage benches shall also be provided at a 30-foot minimum intervals, and construction shall follow the structural setbacks of the CBC. Accordingly, structures shall be: (1) set back from the top of the slope by a minimum of one-third of the slope height or a maximum of 40 feet; and (2) set back from the bottom of the slope by a minimum of one-half of the slope height or a maximum of 15 feet. Alternative setbacks may be addressed on a per lot and foundation design basis.
4.4-4: Expansive soils and bedrock materials are present within project boundaries and construction on expansive soil could cause foundation and other structural failures, particularly at lots traversed by a cut/fill transition.	Less than Significant with Mitigation	**Mitigation Measure 4.4-4:** Cut lots shall be overexcavated 2 feet, scarified 12 inches, and recompacted so as to provide a zone of at least 3 feet of reworked and compacted soil. Additionally, cut/fill transition lots should be overexcavated so as to provide a minimum of 3 feet of a uniform thickness of engineered fill within the entire foundation area. In addition, exposed soils shall be kept moist by watering for several days before placement of concrete.
4.4-5: Compressible soils and non-engineered fills are present within project boundaries and construction on these soils could cause foundation and other structural failures.	Less than Significant with Mitigation	**Mitigation Measure 4.4-5:** All existing non-engineered fill, vegetation, and soft or compressible soils and colluvium in existing canyons, creeks, stock ponds, drainages, and other areas to be graded shall be removed as necessary for project requirements. The depth of removal shall be determined by the geotechnical engineer in the field at the time of grading. Evaluation of unsuitable deposits shall be performed during grading by sampling and laboratory analysis.
4.4-6: Fill placed during construction could settle following construction and cause structural damage.	Less than Significant with Mitigation	**Mitigation Measure 4.4-6a:** The differential fill thickness across a lot should be less than 15 feet. Lots requiring local subexcavation of soil and replacement with engineered fill to achieve this limit should be identified on the final corrective action grading plan. **Mitigation Measure 4.4-6b:** Following clearing and stripping, all areas to receive fill, slabs-on-grade, or pavement should be scarified to a depth of at least 12 inches, moisture conditioned, and compacted to the requirements for engineered fill. **Mitigation Measure 4.4-6c:** Site soils and bedrock used for engineered fill shall have organic content of less than 3 percent. Rocks greater than 6-inches in size shall not be placed at depths greater than 10 feet from finished grade. Rocks greater than 18 inches in size should be broken down such that their maximum dimension is less than 12 to 18-inches, or placed in non-structural fills below slopes or under one of the proposed detention basins. Alternatively, these rocks could be used in landscaping and/or creek restoration projects. **Mitigation Measure 4.4-6d:** Engineered fills shall be compacted to the specifications stated in the geotechnical framework. Over compaction of expansive materials (with a plasticity index of greater than 12) should be avoided within the upper five feet of building areas. All fills shall be placed in lifts not exceeding 12 inches, or the depth of penetration of the compaction equipment used, whichever is less.

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
Hydrology and Water Quality		
4.5-1: The proposed project could incrementally increase impervious surfaces and redirect surface water runoff that would otherwise recharge the underlying groundwater system, but would not lead to substantial groundwater depletion.	Less than Significant	None Required
4.5-2: The proposed project would involve grading that could cause erosion and associated sedimentation of surface water features, and a release of hazardous materials could occur during construction, potentially resulting in water quality degradation.	Less than Significant with Mitigation	**Mitigation Measure 4.5-3:** See Mitigation Measures 4.4-2a through 4.4-2c in Section 4.4, Geology, Soils, and Seismicity.
4.5-3: The proposed project would involve grading and construction of new impervious surfaces, but would not alter the existing drainage patterns in a manner that would increase erosion or flooding on or off-site.	Less than Significant	None Required
4.5-4: The proposed project would incrementally increase surface runoff from additional impervious surfaces and provide and additional source of polluted runoff, but would not exceed the capacity of the storm drain system.	Less than Significant with Mitigation	**Mitigation Measure 4.5-4:** The project sponsor, working with the Alameda Countywide Clean Water Program, shall implement a program to educate buyers about the potential water quality effects of stormwater pollution and effective measures to prevent the generation of stormwater pollutants from residential land uses. At a minimum, the program shall address stormwater pollutants such as hazardous materials commonly used in household applications; spilled oil, fuel, and other fluids such as antifreeze from vehicles; construction debris; landscape chemicals such as pesticides, herbicides, and copper-based algaecides; used packing materials; paint products; trash and litter; excess irrigation; and car washing. Educational materials developed under this program shall identify alternative products that are more environmentally friendly as well as methods to control stormwater pollutants at their source. The materials shall also be consistent with materials available from the Alameda Countywide Clean Water Program and shall be provided to the buyer at the time of purchase.
Traffic and Circulation		
4.6-1: During project construction, the project would result in temporary increases in traffic on local streets during non-peak periods.	Less than Significant	None Required
4.6-2: The project would result in long-term traffic increases at local intersections and incrementally degrade level of service operation at these intersections.	Less than Significant with Mitigation	**Mitigation Measure 4.6-2 (applies to all alternative access scenarios):** The project's impact on study intersections would be mitigated by the payment of traffic impact fees, which is proposed by the project

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		applicant. The need to signalize the Sunol Boulevard/I-680 Northbound Ramp and Sunol Boulevard/I-680 Southbound Ramp intersections have been identified in the City's General Plan as future planned improvements to which the project would contribute through the payment of traffic impact fees. With signalization, these intersections would operate at acceptable service levels, reducing this impact to a less-than-significant level.
4.6-3: The project would result in long-term traffic increases on local neighborhood streets providing site access.	Less than Significant	None Required
4.6-4: Project development would not significantly increase traffic safety in the project vicinity.	Less than Significant	None Required
4.6-5: The project would extend the existing Lund Ranch Road cul-de-sac by an additional 1,600 feet, but would not adversely affect emergency access to the site or site vicinity.	Less than Significant	None Required
4.6-6: The project would not substantially affect regional transit facilities, or local pedestrian and bicycle facilities, and proposed trail connections would improve pedestrian access	Less than Significant; Beneficial	None Required
4.6-7: The project would contribute to cumulative degradation of service level operation on local streets and at study intersections, but the project's contribution would be less than cumulatively considerable.	Less than Significant	None Required
Noise		
4.7-1: Project construction would result in temporary short-term noise increases due to the operation of heavy equipment and expose people to noise levels in excess of standards established by the City of Pleasanton Noise Ordinance.	Less than Significant with Mitigation	**Mitigation Measure 4.7-1:** Project contractors will be required to comply with Pleasanton Municipal Code (Section 9.04.100), which would restrict noise generation by construction to the hours of 8:00 a.m. and 8:00 p.m. on Mondays through Saturdays. All construction equipment shall generate noise levels no greater than 83 dBA (Leq) at 25 feet. Feasible noise controls that could be implemented to reduce equipment noise levels include the following: ▪ Implement best available noise control techniques such as mufflers, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds. ▪ Equipment used for project construction shall be hydraulically- or electrically-powered impact tools (e.g., jackhammers, pavement breakers, and rock drills) wherever possible to avoid noise associated with compressed air exhaust from

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		pneumatically-powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler should lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this should achieve a reduction of 5 dBA. Quieter procedures such as drilling rather than impact equipment shall be used whenever feasible. ▪ Stationary noise sources shall be located as far from residential receptors as possible. If they must be located near residential receptors, they should be adequately muffled and enclosed within temporary sheds. ▪ Limit continuous operation of heavy equipment near sensitive receptors. ▪ The name and phone number of the designated project liaison shall be posted at the project site boundary so that the public can contact the liaison if noise disturbance occurs. This liaison shall immediately take steps to resolve any complaints received, including modifying construction practices as necessary to address the noise complaint.
4.7-2: Project construction would increase construction-related traffic on local streets for the duration of project construction.	Less than Significant with Mitigation	**Mitigation Measure 4.7-2:** To minimize the number of residents exposed to temporary increases in truck traffic noise, construction-related trucks shall be required to use Independence Drive to Bernal Avenue to access Sunol Boulevard and the I-680 freeway. In addition, haul and delivery truck operations shall be limited to the daytime weekday hours (7:00 a.m. to 7:00 p.m.) to minimize noise disturbance.
4.7-3: Construction activities would not result in excessive groundborne vibration at the closest adjacent residences.	Less than Significant	None Required
4.7-4: Operation of proposed residences would result in noise increases from residential activities on-site as well as project-related traffic increases on local residential streets.	Less than Significant with Mitigation	**Mitigation Measure 4.7-4:** The City shall require the project applicant to reduce the project's estimated 5.6 dBA increase on Lund Ranch Road to 4 dBA or less. Such a reduction could be achieved by either: (a) reducing the number of residential units to 29 in order to sufficiently reduce noise generated by project-related traffic volumes; or (b) requiring resurfacing Lund Ranch Road (Independence Drive to project site boundary) and Independence Drive (from Lund Ranch Road to Hopkins Way) with rubberized asphalt to be installed, at discretion of the City Engineer, prior to project completion.
4.7-5: The proposed residences would be located in a noise environment that is normally acceptable for residential uses.	Less than Significant	None Required
4.7-6: The project's contribution of construction-related and operational traffic noise increases on the local street network would not be cumulatively considerable since traffic generated by approved and pending projects would not affect the same local street network.	Less than Significant	None Required

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
Air Quality		
4.8-1: Construction activities associated with proposed construction would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions.	Less than Significant with Mitigation	**Mitigation Measure 4.8-1:** To limit the project's construction-related dust and criteria pollutant emissions, the following BAAQMD-recommended Basic Construction Mitigation Measures shall be included in the contractor specifications for the proposed project: a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. d. All vehicle speeds on unpaved roads shall be limited to 15 mph. e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. *h.* A publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints shall be posted at the site. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable *regulations.* **Mitigation Measure 4.8-2 (applies to all alternative access scenarios):** To reduce the project's construction-related NO_X emissions, the following provisions shall be included in the contractor specifications for the proposed project: a. To reduce NO_X during construction, all excavators, dozers, scrapers, tractors, loaders, and backhoes used for project construction shall be equipped with Tier 3-rated engines. Alternatively, the number of pieces of diesel-powered equipment operating simultaneously could be limited in order to achieve the same level of NO_X reduction. b. All contractors shall use equipment that meets the CARB's most recent certification standard for off-road heavy-duty diesel engines for a given model year engine.
4.8-2: Project construction would not expose sensitive receptors to substantial pollutant concentrations.	Less than Significant	None Required
4.8-3: Construction of the proposed project would have the	Less than Significant	None Required

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
potential to generate odors.		
4.8-4: Project operations would not violate air quality standards or contribute substantially to an existing air quality violation.	Less than Significant	None Required
4.8-5: Project operations would not expose sensitive receptors to substantial pollutant concentrations.	No Impact	None Required
4.8-6: Project operations would not create objectionable odors affecting a substantial number of people.	No Impact	None Required
4.8-7: Implementation of the proposed project would not conflict with or obstruct implementation of the 2010 Clean Air Plan.	Less than Significant	None Required
4.8-8: The project would contribute to cumulative increases in criteria pollutants during project construction and operation.	Less than Significant	None Required
Greenhouse Gas Emissions		
4.9-1: Project construction would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.	Less than Significant	None Required
4.9-2: Project operations would generate GHG emissions, but not at levels that would result in a significant impact on the environment.	Less than Significant	None Required
4.9-3: Project operations would not conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions.	Less than Significant	None Required
4.9-4: The proposed project would not result in a cumulatively considerable contribution to GHG emissions.	Less than Significant	None Required
Cultural Resources		
4.10-1: Construction activities proposed by the proposed project could disturb unknown subsurface cultural resources.	Less than Significant with Mitigation	**Mitigation Measure 4.10-1:** The following mitigation measures shall be required to reduce potential cultural resources impacts to a less-than-significant level:

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		a. A program of archaeological monitoring should be undertaken for all construction related earthmoving activities in the vicinity of the ranch complex and within 100 feet of the drainage as it exits the compound and flows west out of the Lund Ranch project area. The duration of the monitoring program should be determined by the project archaeologist in conjunction with the project sponsor and the Pleasanton Planning Department. In the event of any discovery, work should be stopped within 50 feet of any discovery until a proposal for the evaluation of the resource as required by CEQA guidelines has been submitted to the lead agency for approval. If evaluation of the resource through a program of hand excavation demonstrates that the resource is eligible for inclusion on the California Register of Historic Resources, a proposal for mitigation of impacts to the resource should be submitted to the lead agency for approval before work is allowed to recommence in the area of recorded archaeological deposit. In the event that historic archaeological deposits are uncovered during site monitoring, work should be halted within 20 feet of any discovery until the deposit has been evaluated for potential significance through a program of hand excavation if necessary. If it is determined that the deposit qualifies for inclusion on the California Register, a plan for mitigation of impacts to the resource should be submitted to the lead agency for approval before any actual mitigation efforts are undertaken prior to the continuation of grading operations. Mitigation can include the recording in situ and/or removal of additional historical materials by an archaeological team for later analysis combined with continued monitoring of earthmoving activities in the vicinity of any discovery.
4.10-2: The project proposes to remove the entire ranch complex and most of the vegetation associated with it.	Less than Significant with Mitigation	**Mitigation Measure 4.10-2:** The following mitigation measures shall be under-taken prior to the issuance of a demolition permit for the ranch complex: Historical site records shall be prepared which include the description of all existing elements of the ranch complex along with photo documentation of them, including: (1) all structures and/or remains of structures mentioned in the 1990 and 1999 report and others; (2) the Quonset hut located up creek from the main house; (3) all other historical features mentioned in the 1990, 1999, and 2003 reports, such as the landscaping elements, piles of historic debris, and the variety of vehicles now abandoned there. Some materials and/or items, such as the horse drawn wagon, may be of interest to local historical societies or groups. An attempt should be made to consult with organizations who may have an interest in materials for re-

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		use before they are cleared from the construction site.
Public Services		
4.11-1: Construction of a residential deve-lopment on the project site would require police protection services for future resi-dents, visitors, and property improvements.	Less than Significant	None Required
4.11-2: Construction of a residential development on the project site would require fire protection services for future residents, visitors, and property improvements.	Less than Significant	None Required
4.11-3: The proposed residential project would generate new students and contribute to the cumulative increase in demand for educational services within the service area of the Pleasanton Unified School District.	Less than Significant	None Required
4.11-4: The proposed project would generate new residents and contribute to the increase in demand for recreational services within the city.	Less than Significant	None Required
4.11-5: The proposed project would generate new residents and contribute to the cumulative increase in demand for public safety and recreational services within the city.	Less than Significant	None Required
Hazards and Hazardous Materials		
4.12-1: The proposed project would result in increased generation of household hazardous wastes that could cause human health and environmental effects if improperly disposed.	Less than Significant with Mitigation	**Mitigation Measure 4.12-1:** The project sponsor, working with the City of Pleasanton and Alameda County Household Hazardous Waste Program, shall implement a Buyer Education Program for Household Hazardous Waste, developing materials to educate buyers about the identification of household hazardous wastes, appropriate disposal methods, and available drop off facilities. At a minimum, the materials shall provide a list of example household hazardous wastes, discuss the environ-mental impacts of improper disposal, and provide a list of available drop off facilities. The educational materials shall be provided to the buyer at the time of purchase.
4.12-2: Excavation for the proposed project could potentially encounter previously identified soil contamination, potentially	Less than Significant with Mitigation	**Mitigation Measure 4.12-2:** Contingency Plan. The project sponsor shall require the construction contractor(s) to observe for previously

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
exposing workers and the public to hazardous materials, or resulting in a release to the environment during construction.		unidentified hazardous materials and have a contingency plan for sampling and analysis of potential hazardous materials in soil. If any hazardous materials are identified, the contractor(s) shall be required to prepare a Health and Safety Plan, conduct sampling to assess the chemicals present, and identify appropriate disposal methods. Evidence of potential contamination includes soil discoloration, suspicious odors, the presence of USTs, or the presence of buried building materials. The project sponsor shall also be required to notify the regulatory agencies if the concentration of any chemical exceeds its respective screening level. The assigned lead agency shall oversee all aspects of the site investigation and remedial action and determine the adequacy of the site investigation and remediation activities at the site.
4.12-3: Demolition of the existing ranch structures at the project site could potentially expose workers and the public to hazardous building materials including asbestos-containing materials, lead-based paint, PCBs, DEHP, and mercury, or result in a release of these materials to the environment during construction.	Less than Significant with Mitigation	**Mitigation Measure 4.12-3:** Prior to demolition of the on-site buildings, the project sponsor shall ensure that a Hazardous Building Materials Survey is completed by a Registered Environmental Assessor or a registered engineer to confirm the absence or presence of asbestos-containing materials and lead-based paint in structures to be demolished. This survey shall be completed prior to any demolition activities associated with the project. Adequate abatement practices, such as containment and/or removal for all asbestos-containing materials and lead-based paint, shall be implemented in accordance with applicable laws prior to demolition. Any PCB-containing equipment, fluorescent light tubes containing mercury vapors, and fluorescent light ballasts containing DEHP shall also be removed and legally disposed of.
4.12-4: Project construction activities would result in a temporary increase in fire risks at the site.	Less than Significant with Mitigation	**Mitigation Measure 4.12-4a:** During periods of high fire danger or during red flag conditions, operation of equipment with small motors for vegetation/landscape maintenance shall be prohibited. All mechanical equipment shall have approved spark arrestors and comply with California Public Resources Code (PRC) Sections 4431, 4435, 4442 and 4437 to limit potential for ignition of incidental fires. **Mitigation Measure 4.12-4b:** Comply with the WUIP, which requires that vegetation be managed, that hydrants be operational, and that an approved Fire Prevention Plan be completed prior to construction. The Fire Prevention Plan requires on-site fire suppression resources to include shovel, water pump, fire extinguisher, and two-way radio or communications for fire reporting.

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
4.12-5: Development and occupation of project homes and maintenance of the project's open space areas would increase fire risks at the project site.	Less than Significant with Mitigation	**Mitigation Measure 4.12-5a:** During periods of high fire danger or during red flag conditions, operation of equipment with small motors for vegetation/landscape maintenance shall be prohibited. All mechanical equipment shall have approved spark arrestors and comply with California Public Resources Code (PRC) Sections 4431, 4435, 4442 and 4437 to limit potential for ignition of incidental fires. **Mitigation Measure 4.12-5b:** The project sponsor shall prepare a Fire Safety Awareness Program to address fire safe behaviors and fuel management. The project would include the disclosure of the Program's requirements as part of the CC&Rs for the project development. Alternatively, in consultation with the City, the proposed project could include the formation of an Open Space Maintenance District to ensure the implementation of routine maintenance measures for fire protection purposes. **Mitigation Measure 4.12-5c:** The project sponsor shall incorporate design measures and implement fuel management measures listed in the Wildland Urban Interface Plan (WUIP is included as Appendix E). Vegetation management measures included in this Plan shall continue to be implemented according to the CC&Rs for the proposed residences, and/or an Open Space Maintenance District. This Plan presents measures to: make structures less ignition-prone; make vegetation burn with less intensity; educate and prepare residents regarding wildland fire; properly manage fuels on private lots and in the periphery of the open space; and ensure that fuel management inspections are conducted annually. The City shall review and update the WUIP every five years to ensure that it reflects any updates to the City's Fire and Building Codes.
Energy Conservation		
4.14-1: Demolition of existing buildings and construction of the new residential uses would not encourage activities that use fuel, water, or energy in a wasteful, inefficient, or unnecessary manner.	Less than Significant with Mitigation	**Mitigation Measure 4.14-1:** See Mitigation Measure 4.8-1 in Section 4.8, Air Quality.
4.14-2: Operation of residences would not encourage activities that use fuel, water, or energy in a wasteful, inefficient, or unnecessary manner.	Less than Significant with Mitigation	**Mitigation Measure 4.14-2:** Prior to issuance of any Grading or Demolition Permit, the City Engineer and the Chief Building Official shall confirm that the

TABLE 2-1 (CONTINUED)

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Impact Significance	Mitigation Measure
		building plans and specifications incorporate the following features: a. Roofs that are strong enough and have roof truss spacing to hold photovoltaic panels, where feasible and cost effective, in compliance with Program 7.5 of the Energy Element of the Pleasanton General Plan 2005 - 2025. b. Solar water heating and/or photovoltaic-ready roofs in new construction, i.e., roofs with wiring installed for a roof-mounted photovoltaic system, where feasible, in compliance with Program 7.5 of the Energy Element of the *Pleasanton General Plan 2005 - 2025*.

- Economic Effects: This refers to the extent to which a proposed project could cause increased activity in the local or regional economy. Economic effects can include such effects as the Multiplier Effect. A "multiplier" is an economic term used to describe inter-relationships among various sectors of the economy. The multiplier effect provides a quantitative description of the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect acknowledges that the on-site employment and population growth of each project is not the complete picture of growth caused by the project.

With proposed addition of 50 residential units, the proposed project would contribute to growth in the local population. The proposed 50-unit project would increase the city's population by approximately 142 residents. This added population would represent 0.2% of the city's General Plan buildout population for 2025. Since development of 50 units on this site is included in the General Plan and accounted for in the General Plan Buildout population, the project would be part of the city's planned growth and not considered to be growth-inducing.

The project would, however, extend Lund Ranch Road and utilities onto the site. Road and infrastructure improvements would not extend to any undeveloped properties and thereby, not induce new development. The proposed residential and open space uses occur within the boundary of lands designated for urban development by the General Plan and since the Urban Growth Boundary is located the project's southern and eastern boundary, proposed development of this site would not facilitate additional future growth in this area. In addition, the proposed development of 50 residential units would be subject to the City's Growth Management Ordinance and this ordinance would ensure that growth within the city occurs at a predictable rate.

CUMULATIVE IMPACTS

CEQA Guidelines Section 15130 require the analysis of cumulative impacts that may be associated with the proposed project when they are significant. According to CEQA Guidelines Section 15355, "Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Project-specific impacts which are considered individually minor may be significant when combined with the environmental effects of other projects; significant cumulative impacts must be addressed, but not necessarily in "as great detail" as the discussion of project-related impacts.

The CEQA Guidelines provide that a lead agency may describe the cumulative environment by either a listing of pending, proposed, or reasonably anticipated projects, or a summary of projections contained in an adopted general plan or a related planning document that describes area-wide or regional cumulative conditions. This analysis follows the former, list method. Projects located within the project area and within the City of Pleasanton that have been approved but not yet constructed or constructed but not yet fully occupied are listed and located in Appendix F.

No cumulative increases in construction-related on-site noise is expected to occur since none of the approved or pending projects (see list and map of projects in Appendix F) is located in the immediate project vicinity nor would they be served by the same access roads as project-related construction traffic. Therefore, the potential cumulative impacts that could result from development of the proposed project in conjunction with other projects identified in Appendix F would relate to traffic increases on local roadways, associated increases in traffic noise and air pollutant emissions, increases in greenhouse gas (GHG) emissions, and increased demand on public services.

The geographic scope of the cumulative analysis varies by resource area. For the cumulative traffic assessment, the geographic scope of the cumulative analysis is limited to the local roadways within the City because of the small size of the project (i.e., traffic increases on regional roadways from a project of this size would not be cumulatively considerable). The geographic scope of the cumulative air quality analysis is regional (San Francisco Bay Area Air Basin), while the geographic scope of the cumulative noise impact analysis is more localized and limited to the area in the vicinity of the project site or haul/delivery routes. For the evaluation of cumulative impacts on public services, the geographic scope is the city boundary. On the other hand, the geographic scope for GHG emissions is global.

Project implementation in conjunction with implementation of the cumulative projects listed and mapped in Appendix F would contribute to cumulative increases in traffic on local roadways, associated increases in noise, air pollutant, and GHG emissions, and increased demand on public services. Cumulative impacts are evaluated under Impacts 4.6-7 (traffic), 4.7-6 (noise), 4.8-8 (air quality), 4.9-4 (GHG emissions), and 4.11-5 (public services). These impact discussions indicate that the project's contribution to identified cumulative impacts would not be cumulatively considerable, which is a less-than-significant cumulative impact. Traffic generated by the proposed project would contribute to cumulative degradation of service level operation on local streets and at study intersections, but the project's contribution was determined to be less than cumulatively considerable. The project's contribution of construction-related and operational traffic noise increases on the local street network was also determined to be less than cumulatively considerable since traffic generated by approved and pending projects would not affect the same local street network. The project would contribute to cumulative increases in criteria pollutants during project construction and operation, but these contributions were determined to not be cumulatively considerable. In addition, there are no other approved or pending projects located within 1,000 feet of the project site that would be under construction at the same time as the proposed project, and therefore, cumulative health risks would only consist of the project's contributions, which were determined to be less than significant. Therefore, the project's contribution to cumulative risk and hazard impacts would not be cumulatively considerable, a less-than-significant impact.

ALTERNATIVES

This EIR considered nine alternatives: (1) No Project Alternative and (2) Modified Access Alternative, consisting of seven alternative access designs for the proposed project site. A Mitigated Project Alternative was included as part of the comparative analysis for alternatives presented in **Table 5-3** of

Chapter 5 in this DEIR. The Alternate Location Alternative was reviewed on a preliminary basis and then rejected when it was determined to be infeasible because an alternate location in this area would unlikely be able to meet the majority of the project objectives since these lands are: 1) less accessible than the project site; 2) subject to the same hillside slope and ridgeline protection requirements as the proposed project; 3) outside of the Urban Growth Boundary; and 4) expected to have potential environmental impacts that would be similar to or greater than those resulting from the proposed project. Therefore, this project alternative was rejected from further analysis. The seven access alternatives were evaluated in Section 5.5 in detail and impacts associated with each of these alternatives are compared to the impacts of the proposed project in Table 5-3. In summary, some the impacts under these alternatives would be less than the proposed project while others would be greater, and all of these alternatives would meet some of key project objectives to a certain extent.

No Project Alternative. Under the No Project Alternative, the proposed project would not be developed and the environmental impacts identified in this report (summarized above) would be avoided. The existing agricultural uses would continue in operation in the same current manner. However, since the project site is located contiguous to existing urbanized areas and roads terminate at the project site, it is likely that future proposals will be made for development of the 195-acre project site. As discussed in Chapter 4.1, Land Use, Plans, and Policies, the General Plan land use designations for the project would facilitate future development proposals consistent with the General Plan and zoning designations for the Lund Ranch property. Therefore, it is anticipated that development proposals will be made in the future for the project site, and these proposals would likely reflect uses and densities allowed by the then-current General Plan. It should be noted that any future development proposals for the project site would be subject to the provisions of the City's Measures PP and QQ.

The No Project Alternative would preclude the addition of 550 weekday daily and 45 to 56 peak hour vehicle trips generated by the residential uses on the project site. In addition, potential noise and air quality impacts associated with the new traffic volumes as well as temporary construction-related traffic increases would be avoided. The project's potential impacts from grading and excavation would be precluded, as would the identified geotechnical effects. The oak woodland/savanna vegetation would continue to support wildlife habitat and seasonal wetlands would remain intact. Impervious surfaces on the project site would remain at present levels of coverage and no new storm runoff would occur from planned residences, roadways, and associated hardscape.

This alternative would also prevent other potential increases in construction-related noise and air quality impacts from operation of construction equipment on-site, as well as operational increases in noise, air pollutants, and GHG emissions from increases in residential activities and energy demands. Depending upon the condition of the project site's structures, demolition of site buildings would not be necessary and the potential for release of hazardous materials would not occur. In addition, the continued limitation of human activity on the site would constrain the site's exposure to sources for potential wildfire hazards. Without extensive excavation and grading, the potential for uncovering buried cultural resources would also be negligible.

This alternative would not physically alter existing conditions at the site and, therefore, the No Project Alternative is the Environmentally Superior Alternative. However, the No Project Alternative would meet none of the project applicant's objectives. Furthermore, the evaluation of the No Project Alternative would need to consider the future use of the project site absent the project development as currently proposed.

Given the history of the project site, it is reasonable to foresee that proceeding with the No Project Alternative for the project site, in conjunction with a continued diminishing supply of undeveloped land within the City of Pleasanton, would result in future proposal(s) for residential development on the project site. Assuming that the current General Plan Land Use Designation and zoning for the property remains in effect, future low-density, single-family residential development could be anticipated at the Lund Ranch property. Future potential development proposals would be limited to the current site areas proposed for residential use. Depending upon acceptable access plans for the site, future residential development proposals for the site would most likely attempt to maximize the number of single-family lots to be constructed within the developable portion of the site. Consequently, future residential development proposals for the project site would require planning and construction activities similar to those occurring for the proposed project. The potential environmental effects of any future residential development proposed for the project site would be similar in nature to those of the proposed project; however, the extent of these environmental effects may be less than those identified for the proposed project, contingent upon the specific residential development design proposed at a future time.

Modified Access Alternative. The Modified Access Alternative was formulated to address the extensive neighborhood concerns regarding perceived traffic issues for residents of the Sycamore Heights, Bridle Creek, Ventana Hills, Bonde Ranch, and Junipero Street area neigborhoods. In addition, this Alternative examines potential access configurations that may be required as a result of past agreements between residents and developers of neighborhoods adjoining the Lund Ranch project site.

As discussed above, the purpose of developing alternatives to the proposed project is to determine whether one or more alternatives would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. Upon consideration of the expressed concerns of the community, it was determined that a Modified Access Alternative should examine a range of potential access configurations which could achieve the CEQA-mandated avoidance and/or reduction of potentially significant impacts that have been identified for the proposed project. Alternatives under consideration should also meet most of the project objectives, although some objectives may not be entirely met.

The Modified Access Alternative consists of eight scenarios that include the proposed project's extension of Lund Ranch Road onto the subject property. Since Chapter 4 of this EIR provides a detailed evaluation of the impacts associated with the first scenario, this Modified Access Alternative examines the remaining seven alternative access configurations for the project site (Scenarios 2 through 8). The seven alternative access scenarios are shown in **Figure 5-1** and described as follows:

- Scenario 2 - Lund Ranch Road + Middleton Place (no connection to Livingston Way);
- Scenario 3 - Lund Ranch Road + Sunset Creek Lane;
- Scenario 4 - Lund Ranch Road + Middleton Place (no connection to Livingston Way) + Sunset Creek Lane;
- Scenario 5 - Lund Ranch Road + Middleton Place (no connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way;
- Scenario 6 - Middleton Place (no connection to Livingston Way) + Sunset Creek Lane (no connection to Lund Ranch Road);
- Scenario 7 - Middleton Place (no connection to Livingston Way) + Sycamore Creek Way (no connection to Lund Ranch Road); and
- Scenario 8 - Middleton Place (no connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way (no connection to Lund Ranch Road).

As indicated in Figure 5-1, Scenarios 2 through 5 would involve access to the Lund Ranch project site from Lund Ranch Road as well as one or more accesses from Middleton Place, Sunset Creek Lane, and/or Sycamore Creek Way, all of which terminate at or near the property's boundaries. Scenarios 6 through 8 would entail connections from Middleton Place to either or both Sunset Creek Lane and Sycamore Creek Way.

Mitigated Project Alternative. This alternative would consist of the proposed project, but with all mitigation measures specified in this EIR incorporated into project plans. With inclusion of all specified mitigation measures, all impacts under this alternative would be less than significant. Since all identified impacts would be mitigated to less than significant, the impacts under this alternative would be less than the proposed project, as indicated in Table 5-3. Incorporation of all mitigation measures would not change the proposed project. Therefore, this alternative would meet all of the project objectives. Under this alternative, all identified impacts under the project would be substantially reduced by specified mitigation measures and therefore, all impacts would less than significant.

Environmentally Superior Alternative. An EIR is required to identify the Environmentally Superior Alternative from a range of reasonable and feasible alternatives evaluated in the EIR [Section 15126.6 (e) (2)]. If the Environmentally Superior Alternative is the "No Project" Alternative, the EIR shall also identify an Environmentally Superior Alternative among the other alternatives. The Environmentally Superior Alternative would be the alternative that results in fewer environmental impacts.

The preceding discussion compares the impacts of these alternatives with the proposed project. **Table 5-3** summarize the impacts that would occur under the proposed project, and also indicates the relative differences in these impacts under each alternative scenario and applicability of mitigation measures

included in Chapter 4 to each alternative scenario. Table 5-3 also includes a comparison of the alternative access scenarios' potential impacts vis-à-vis the Mitigated Project.

The No Project Alternative would avoid demolition/construction-related impacts associated with the proposed project and, as a result, would be the Environmentally Superior Alternative. As indicated above, the EIR must also identify an environmentally superior alternative among the other alternatives. A comparative evaluation of the Alternative Access Scenarios indicates, overall, that these would result in greater impacts than the proposed project without mitigation. The principal reasons for the higher level of potential impacts from the Alternative Access Scenarios involves: 1) additional and more extensive biological impacts associated with crossing a creek; 2) the geological and soils impacts related to grading for roadway construction on hillside slopes exceeding 25% on the southern portion of the project site; and 3) the introduction of increased traffic noise to neighborhoods adjoining the project site. However, all of the mitigation measures specified in this EIR would have to be required under the proposed project or the Alternative Access Scenarios, while the Mitigated Project Alternative already includes all of the EIR mitigation measures.

The Alternative Access Scenarios would reduce or increase the extent and levels of environmental effects depending on the specific resource under consideration for each individual alternative. As an example, Alternative Access Scenarios 5 (Middleton Place, Sunset Creek Lane, Sycamore Creek Way, and Lund Ranch Road) and 7 (Middleton Place and Sycamore Creek Way) would not result in increased traffic noise effects for the neighborhoods connecting through the proposed Lund Ranch property. However, due to the required creek crossing and road construction, these alternatives would have biological and geological/soils impacts that would be greater than those from the proposed project. Similar conclusions would pertain to all of the other Alternative Access Scenarios considered in this review.

With respect to the selection of the Environmentally Superior Alternative, one of the Alternative Access Scenarios, Alternative Access Scenario 2 (Lund Ranch Road and Middleton Place), would have only slightly greater environmental effects than the Mitigated Project. This alternative would have increased biological and traffic noise impacts relative to the Mitigated Project, but no potential geological/soils or biological impacts associated with road grading or crossing the creek in the southern part of the project site, as with the other Alternative Access Scenarios. As indicated in Table 5-3, the Mitigated Project would have the least environmental effects from project development and would therefore be the Environmentally Superior Alternative that meets all of the Project Objectives.

AREAS OF CONTROVERSY

Section 15123(b) of the CEQA Guidelines requires the EIR Summary to identify areas of controversy known to the Lead Agency and issues to be resolved. The public noticing process was used to inform the public and public agencies regarding the plans for the proposed residential development. A Notice of

Preparation (NOP) for the EIR was prepared and issued on May 1, 2012 and the 30-day comment period extended from May 1, 2012 to June 1, 2012. One letter response was received from the Alameda County Transportation Commission stating that the Commission had no comments and that the project was exempt from Land Use Analysis Program of the County's Congestion Management Program due to the project's generation of less than 100 P.M. peak hour trips above existing conditions. No other comments, either from public agencies or the general public, were received concerning specific issues that would need to be addressed in the EIR.

ISSUES TO BE RESOLVED

This EIR addresses the impacts of the proposed project. Specific activities that were evaluated in this EIR include proposed removal of existing on-site facilities and future road, infrastructure, and residential lot development. The impact assessment in this EIR is based on the project design presented in Chapters 3 and 4 of this EIR. One of the Project Objectives is to implement a project design that complies with the provisions of Measure PP, preserving the hillsides and ridgelines of the community. As indicated in the discussion of Chapter 4.1, Land Use, Plans, and Policies, the proposed residences would be required to situated a minimum of 100 vertical feet below the ridgelines to comply ridgeline protection measures. This requirement will most likely require the lowering of pad elevations or the elimination of up to five proposed lots. The feasibility of one or both of these approaches in some combination is yet to be determined.

CHAPTER 3 PROJECT DESCRIPTION

3.1 PROJECT LOCATION

The project site is located at 1500 Lund Ranch Road in the City of Pleasanton. The subject property is situated at the south end of the City, southeast of the residential area that extends south of Bernal Road and east of Sunol Boulevard. Although the site is located at the ends of Lund Ranch Road, Middleton Place, and Sunset Creek Lane, access to the project site is available from the end of Lund Ranch Road. The project's location is indicated on **Figure 3-1.**

Lund Ranch has operated historically as a ranch for the grazing of cattle and other livestock. The approximately 195-acre site is developed with a ranch house and five outbuildings. The Lund Ranch is bounded on the north by homes in the Kottinger Ranch Subdivision, on the west by existing homes of the Bonde Ranch, and Ventana Hills and Sycamore Heights subdivisions. The agricultural and unincorporated lands of the Foley and Spotorno properties border Lund Ranch on the east and south, respectively.

3.2 PROJECT SPONSOR OBJECTIVES

Section 15124(b) of the *CEQA Guidelines* requires that an EIR include "a statement of the objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project."

The objectives of the project sponsor, GHC Lund Ranch LLC, for the Lund Ranch II project would be to dedicate approximately172.1 acres of the project site to the City for permanent open space and recreational trails, and to construct 48 single-family residences on approximately 16.1 acres and two estate lots on 2.8 acres. The proposed project would create a residential subdivision that is consistent with the uses and scale of development in the surrounding neighborhood. In order to achieve this, the project proposes residential uses consistent with the site's General Plan designation for "Rural Density" and "Low Density" residential use, and the site's zoning designation of "PUD-LDR/OS," Planned Unit Development – Low Density Residential) District (including zoning requirements for lot size, set backs and street dimension standards). The following Section 3.3, Project Description, provides a detailed discussion of the proposed residential development.

In addition, an important objective of the proposed project is to provide residential uses that that respect the nature of the site's terrain and are consistent with the community's desire to preserve and protect the aesthetic amenities of its ridgelines and hillside areas. Besides the dedication of more than 172 acres of upland area for pubic open space, the project has been designed in compliance with the provisions of the

Source: Geier & Geier Consulting (February 2013)

City's Measure PP, with the objective of confining proposed residential use to the lower elevations of the site that immediately adjoin existing residential neighborhoods.

Lastly, the project proposes a level of residential use that does not substantially increase traffic in the surrounding residential neighborhoods. The project attempts to achieve this objective by limiting residential development density to a level below that permitted by the General Plan and Zoning Ordinance.

3.3 PROJECT DESCRIPTION

Greenbriar Homes Communities is requesting approval of a Planned Unit Development (PUD) development plan, which would allow the construction of a total of 50 residential units on the 195-acre Lund Ranch II property. The project site is presently designated for Rural Density (1 dwelling unit per 5 gross acres) and Low Density (less than 2 dwelling units per gross acres) Residential uses. The subject property is zoned "PUD-LDR/OS," Planned Unit Development – Low Density Residential) District.

Approval of the PUD application would result in the development of residential uses on approximately 22.7 acres of the Lund Ranch site. The proposed gross residential density for the site would be 0.26 dwelling units per acre.The development proposal also includes the extension of Lund Ranch Road from its present terminus at the Lund Ranch property boundary to the southeast for approximately 1,500 feet onto the property. The proposed extension of this roadway would also entail the construction of three cul-de-sacs to serve the planned residential uses on the Lund Ranch site. Additionally, two driveways would be constructed from the ends of "Court C" and the Lund Ranch Road to provide access to the two estate lots proposed as part of this project.

The project plans designate the majority of the Lund Ranch property for open space uses. Approximately 161 acres (83%) of the site would be dedicated for public open space use, while 11.1 acres of the two estate lots would be undeveloped private open space area. The public open space would be owned by the City and maintained by either the City of the development's homeowners' association (HOA).

The project also provides access to the public open space with the development of trails that would extend from the ends of Sunset Creek Lane, Sycamore Creek Way, and the proposed Lund Ranch Road extension. The trails would generally follow an existing unpaved road from the western side of the property, cross the site's creek east of the proposed Lund Ranch subdivision, and climb to ridges on the eastern and northern portions of the subject property. The trails would end at the Foley property on the eastern edge of the project site and at its boundary with the Bonde Ranch property on the north. The latter trail terminus is proposed to connect with a trail that crosses the Bonde Ranch property.

The proposed project would be responsible only for trail construction on Lund Ranch property and for a short trail section (approximately 300 feet) that traverses the City's water reservoir site at the end of Sycamore Creek Way. The proposed Trail Plan includes the construction of a foot bridge across the site's creek channel immediately east of the future Lund Ranch Road cul-de-sac.

The following discussion includes a detailed description of the proposed project facilities, with additional information concerning residential and recreational uses, access, grading, landscaping, and other project improvements.

3.3.1 PROPOSED PUD

Chapter 18.68 of the Pleasanton Municipal Code establishes the "PUD Planned Unit Development" zoning district classification for potential development in the city. The purpose of this zoning district includes the following objectives[1]:

A. To encourage imagination and housing variety in the development of property of varying sizes and topography in order to avoid the monotony and often destructive characteristics of standard residential, commercial and industrial developments;

B. To provide a development procedure which will insure that the desires of the developer and the community are understood and approved prior to commencement of construction;

C. To insure that the goals and objectives of the city's general plan are promoted without the discouragement of innovation by application of restrictive developmental standards;

D. To encourage efficient usage of small, odd-sized or topographically affected parcels difficult for development by themselves;

E. To accommodate changing market conditions and community desires;

F. To provide a mechanism whereby the city can designate parcels and areas requiring special consideration regarding the manner in which development occurs;

G. To encourage the establishment of open areas in residential, commercial and industrial developments and provide a mechanism for insuring that said areas will be beautified and/or maintained;

H. To complement the objectives of the hillside planned development district (HPD) in areas not subject to the provisions of that zoning district. (Prior code § 2-8.26)

The Lund Ranch project site consists of extensive hillside areas with slopes predominantly over 25 percent. These hillsides are subject to the development restrictions based upon the City's Measures PP and QQ, referendum measures approved by Pleasanton residents in 2008 for the protection of the community's hillsides and ridges. The Measures also addressed issues such as urban growth control and compliance with the policies of the General Plan.

In order to comply with the provisions of the hillside development guidelines for the city, the proposed project plans have identified portions of the Lund Ranch property that consist of slopes at and under 25%, and adjoin existing residential subdivisions. Figure 3-2 presents the project area that conforms with the City's slope restrictions for hillside development proposals.

[1] Pleasanton Municipal Code, Chapter 18.68.020.

The proposed residential development would be located on the lower elevations of the Lund Ranch property, starting the eastern limits of the Ventana Heights subdivision and extending along the portion of the site historically containing the ranch house and outbuildings. The project design would require grading for the extension of Lund Ranch Road, the construction of three cul-de-sacs, and the development of residential building pads.

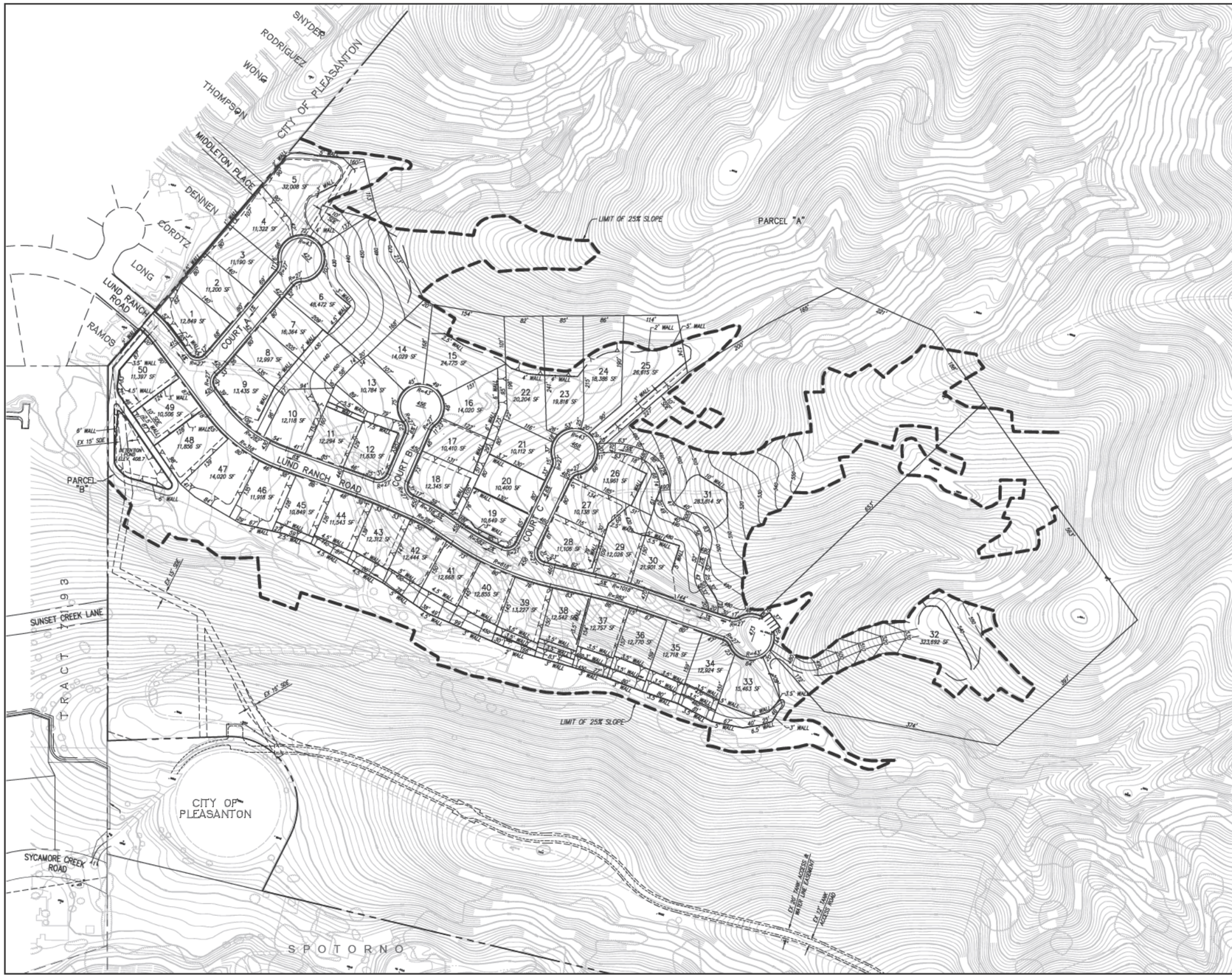
The project's residential development would be comprised of 48 single-family detached homes on lots ranging in size from 10,112 to 48,472 square feet (s.f.), with an average lot size of 14,632 feet. Lots 1 through 30 would be situated on the north side of extended Lund Ranch Road and served by this roadway as well as the streets indicated as Courts A to C. Lots 33 through would be located on the south side of Lund Ranch Road extension. In addition to these lots, the project proposes to develop two estate lots (Lots 31 and 32) that are 283,814 s.f. (6.5 acres) and 323,692 s.f. (7.4 acres), respectively. The proposed development plan is presented in **Figure 3-2**.

The 48 single-family residential lots would be developed with one- and two-story homes that are based upon three floor plans (Plans 1 – 3), each of which includes three styles (Styles A – C). Plans 1 through 3 would provide residences that range in size from 4,123 to 4,501 s.f. Representative elevations of the three types of residential units are shown in **Figures 3-3, 3-4,** and **3-5**. The development of the two estate lots would entail construction of two custom homes that would undergo a separate design review process. A summary of residential units, open space, and their areal extent is listed in **Table 3-1**.

Approval of the PUD development plan would establish the following design guidelines for the proposed development:

- Density
- Permitted and Conditional Uses
- Development Standards for Primary and Secondary Structures
- Grading Plan
- Lot and Circulation Patterns
- Utility and Infrastructure Design
- Architectural Designs of Homes

Subsequent to PUD approval, City review and approval would still be required for the project's Tentative Subdivision Map, Final Subdivision Map, and Improvement Plans.



LAND USE SUMMARY

LAND USE	UNITS	ACRES	% OF SITE
SINGLE FAMILY DETACHED 10,000 S.F. MIN. LOT SIZE	48	16.1	8.2%
ESTATE LOTS (DEVELOPED AREA)	2	2.8	1.4%
STREETS	–	3.3	1.7%
PARCEL "B"	–	0.5	0.3%
OPEN SPACE	–	172.1	88.4%
PUBLIC OPEN SPACE (PARCEL "A")	–	(161.0)	
PRIVATE OPEN SPACE*	–	(11.1)	
	50	194.8	100%

SITE SUMMARY

NUMBER OF UNITS:	50
SITE ACRES	194.8 ACRES
DEVELOPED AREA	22.7 ACRES
TOTAL LOTS AND STREETS	33.8 ACRES
GROSS DENSITY	0.26 DU/AC
SMALLEST LOT SIZE:	10,112 SF
LARGEST LOT SIZE: **	48,472 SF
AVERAGE LOT SIZE: **	14,632 SF

* UNDEVELOPED AREA WITHIN ESTATE LOTS
** EXCLUDES ESTATE LOTS

	Building		Minimum Lot			Minimum Yard				
	(1)	(2)	(3)	(4)	(5)	(6) Front Yard	(7) Sides (1)	(8) Sides (2) Between Adjacent Houses	(9)	
LOT SIZE	Max Height (Ft.)	Max FAR (%)	Minimum Area (Sq Ft.)	Minimum Width (Ft.)	Minimum Depth (Ft.)	Front Yard Garage/House (Ft.)	One Side/ Total (Ft.)	(Ft.)	Rear (Ft.)	Corner lot Fencing (Ft.)
PUD R-10,000+ (2 STORY)	29'-5"	40%	10,000	75	110	15/15	5/11	16	20	5
PUD R-10,000+ (1-STORY)	25'-2"	40%	10,000	75	110	15/15	5/11	16	20	5

BUILDING
(1) MAXIMUM HEIGHT: Height of building measured from the foundation elevation to the mid-point of the highest ridge to eave line.
(2) FAR: FLOOR AREA RATIO: The ratio of floor area allowed per lot to lot area. This is represented as a percentage. Seven hundred feet (700) are excluded from the FAR calculation for the garage.

MINIMUM LOT
(3) MINIMUM AREA: Minimum lot area within the property boundaries measured from the public right-of-way.
(4) MINIMUM WIDTH: Average minimum lot width excepting flag lots and culdesacs where the minimum street frontage width may be 15 feet
(5) MINIMUM DEPTH: Average minimum depth.

MINIMUM YARD
(6) FRONT GARAGE/HOUSE: Excepting architectural projections, minimum front yard is measured from the right-of-way line to the front foundation plane of the garage/house
(7) SIDE, FRONT LOADED GARAGES: The minimum one side yard and the total of the both side yards given the garage for the home is front loaded (entered from the side of the garage facing the street)
(8) BETWEEN ADJACENT HOMES: The minimum side distance between two (2) adjacent homes, excluding allowed intrusions into setbacks
(9) MINIMUM REAR YARD: Minimum rear yard measured from the rear property line to the foundation plane of the home (excludes popouts for fireplaces, media niches, and/or bay windows.

N

GRAPHIC SCALE
0 100 200 300
(IN FEET)

Source: Ruggeri-Jensen-Azar (February 2013)

FRONT ELEVATION - B

REAR ELEVATION - B

Source: William Hezmalhach Architects, Inc. (February 2013)

ELEVATION - B

ELEVATION - A

Source: William Hezmalhach Architects, Inc. (February 2013)

ELEVATION - B

ELEVATION - A

Source: William Hezmalhach Architects, Inc. (February 2013)

TABLE 3-1

PROPOSED USES BY AREA

Land Use Summary	Units	Acres	Site Coverage	Maximum Height (Feet)
- Single-Family Detached with Minimum Lot Size of 10,000 s.f. [a]	48	16.1	8.2%	25'2" to 29'5"
- Estate Lots with Minimum Lot Size of 40,000 s.f.	2	2.8	1.4%	45[2]
- Streets	-	3.3	1.7%	
- Parcel "B" – Detention Pond	-	0.5	0.3%	
Development Totals	**50**	**22.7**	**11.6%**	
Open Space		172.1	88.4%	
Parcel "A" – Public Open Space		161.0	82.6%	
Private Open Space (Estate Lots) [b]	-	11.1	5.8%	
Total Area	**-**	**194.8**	**100%**	

NOTES:

[a] s f. = square feet

[b] The project sponsor anticipates that the estate lots will be developed and built at a later time. Design guidelines for homes on Estate Lots would conform to the R-1-40,000 Zoning District regulations except as modified.

SOURCE: Ruggeri-Jensen-Azar & Associates (February 8, 2012)

3.3.2 OPEN SPACE

In addition, the project plans propose to dedicate "Parcel A," 161 acres of the Lund Ranch site, to the City for permanent public open space. The open space area would be made accessible through the construction of a trail system on the property. The project's Trail Plan specifies approximately 1.3 miles (7,000 linear feet) of pedestrian trails (Class C) to be developed through the open space area.

General, the main trail on the project site would connect with end of Sunset Creek Lane and extend eastward along an existing unpaved road south of the site's creek. The trail would cross the creek via a proposed foot bridge south of proposed Lot 32 (estate lot) and connect with the Lund Ranch Road cul-de-sac for public access from this location. The cul-de-sac would include four public parking spaces to accommodate this trailhead. The main trail would continue eastward past Lot 32 and head north along a drainage swale to the ridgeline that occurs along the site's northeastern perimeter. One branch of the trail would extend the the northwest toward the site's common property line with the Bonde Ranch, while another trail segment would extend southeastward to the Foley Ranch property line.

In addition to the Class C trail, the Trail Plan specifies the development of two Class B trails. One of these trails would use the existing paved emergency vehicle access (EVA) road to the City's water tanks on the southern edge of Lund Ranch. On the western end of this trail, it would connect with Sycamore Creek Way and cross City lands used for its water tank. The project would also construct a second Class

B trail from the City's smaller water tank site in the southeastern corner of the property to the Foley Ranch property line.

Trail locations are indicated in **Figure 3-6**. Details of the project's proposed open space areas are presented in Table 3-1.

3.3.3 STORMWATER DRAINAGE

The project plans for the Lund Ranch II PUD include an evaluation of the storm drainage requirements for the subject property. The detailed analysis of hydrologic conditions on the site are discussed in Section 4.5, Hydrology and Water Quality. In brief, the runoff flows on the site occur in three sub-watersheds and the drainage from these areas was allocated to three Drainage Management Areas. The Drainage Plan for the project also designates a fourth Drainage Management Area that comprises the proposed development area on the site.

The surface flows from the three Drainage Management Areas that encompass the open space areas of the project site would bypass the portions of the site proposed for development. The runoff from these undeveloped areas would continue to discharge to either the stream channel on the site or a 48-inch storm drain near the property's boundary with the Ventana Heights neighborhood.

Storm drainage from the proposed development would be directed to a detention basin designated as "Parcel B" at the western edge of the project site, immediately southwest of Lots 48 through 50. The drainage facilities would include two vegetated swales as well as the detention basin. The detention basin would be lined with permeable biotreatment soil material for runoff filtration. Filtered storm flows would then be conveyed to the existing 48-inch storm drain at the site's perimeter.

3.3.4 EXTENSION OF UTILITIES

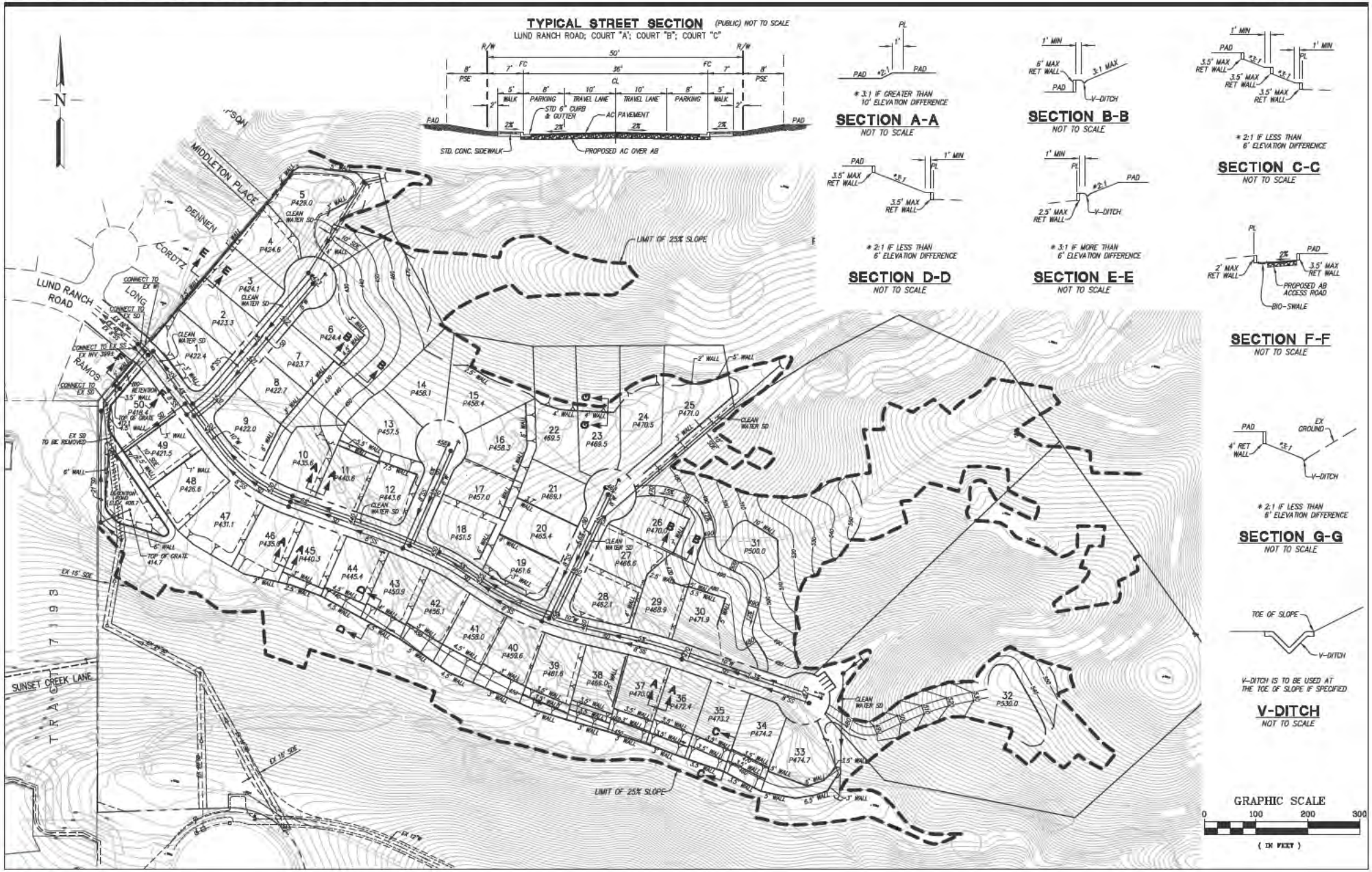
The project plans submitted for the Lund Ranch II PUD include a Preliminary Grading and Utility Plan. The Utility Plan specifies the locations of future water, sewer, and storm drain lines for the proposed project. Future utility lines would be extended from exisitng service lines that terminate off-site in Lund Ranch Road. These include existing 10-inch water and 8-inch sewer lines. Storm drainage from the developed portion of the site would be directed through storm drains in future Lund Ranch Road and "Courts A – C" to the detention pond on the site for treatment and subsequent discharge to the existing 48-inch storm drain in Lund Ranch Road. The Preliminary Grading and Utility Plan is shown in **Figure 3-7**.

TRAIL LEGEND

- PROPOSED CLASS B TRAIL (GRADED EARTH)
- PROPOSED CLASS B TRAIL (USE EXISTING PAVED EVA)
- CLASS C TRAIL PER CITY MASTER PLAN (BY OTHERS)

NOTE:
1. APPROVED BY TRAILS COMMITTEE OCTOBER 23, 2006.

Source: Ruggeri-Jensen-Azar (February 2013)



Source: Ruggeri-Jensen-Azar (February 2013)

3.3.5 LANDSCAPING

The project site supports approximately 1,700 trees over its 195 acres. The tree survey of the property assessed 220 of the trees that are within or near the area proposed for development. Of the trees evaluated on the Lund Ranch, the Tree Report for the site specifies the removal of 149 trees and the preservation of 71 trees.

The proposed conceptual landscaping plan for the project site is presented in **Figure 3-8**. The Preliminary Landscaping Plan identifies proposed tree and shrub plantings for the proposed development to be consistent with a tree mitigation requirements as specified by the City ordinance and policies. The project's Landscaping Plan shows the conceptual extent of tree and shrub plantings to occur on the northern perimeter of the development area, throughout the private open space on the two estate lots, and along the stream channel south of the developed area. In addition, the project plans include the planting of street trees along Lund Ranch Road and the three cul-de-sacs within the development area. The creek and trail south of the development area would be enhanced with native plantings, similar to the riparian plantings downstream from the project site. Section 4.3, Biological Resources, provides a detailed discussion of the project site's trees and applicable replacement policies.

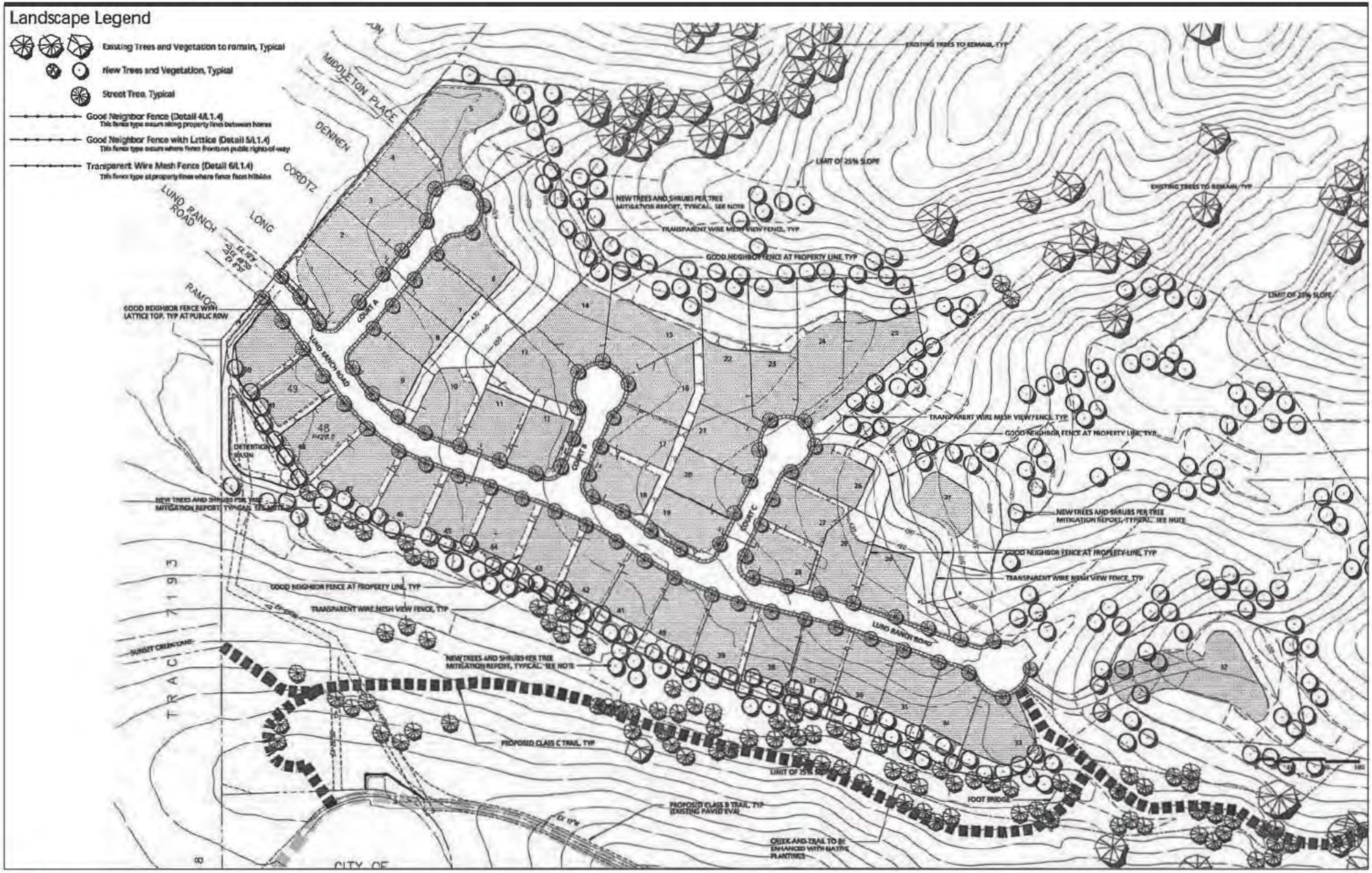
The Landscaping Plan also specifies that individual lots would be separated by a "good neighbor" fence at the property lines. A transparent wire mesh fence would be constructed along the rear yards of the residential lots.

3.3.6 ACCESS AND PARKING

Proposed on-site streets would be public streets. The principal project roadway would be the extension of Lund Ranch Road approximately 1,600 feet from its current terminus at the project site's property line. Three cul-de-sacs along the north side of the Lund Ranch Road extension would provide additional access to 31 lots.

Two driveways would allow access to the two planned estate lots. One 500-foot driveway would extend between the end of Court C, the easternmost cul-de-sac, and the planned end of Lund Ranch Road; the second driveway would continue approximately 325 feet from the end of the Lund Ranch Road to the second estate lot. These driveways would serve Lots 31 and 32, respectively.

Parking in the proposed development would be [restricted to individual residential lots with no on-street parking permitted] or [allowed along the public roads]. In addition, the proposed development plans indicate that four parking spaces would be constructed at the future end of Lund Ranch Road to serve the site's public trailhead.



Source: The Guzzardo Partnership, Inc. (February 2013)

3.4 REQUIRED PERMITS AND APPROVALS

The following planning and regulatory agencies could have permit or review authority over the proposed project and would be considered responsible agencies:

3.4.1 FEDERAL PERMITS/REVIEW AUTHORITY

U.S. ARMY CORPS OF ENGINEERS (CORPS)/ENVIRONMENTAL PROTECTION AGENCY (EPA) – SECTION 404 PERMIT

The Corps is responsible under Section 404 of the Clean Water Act to regulate the discharge of fill into waters of the United States. The definition of "water of the United States" was originally applied to navigable waters but has since been broadened to include tributaries to navigable waters, including adjacent wetlands. Adjacent wetlands include wetlands "separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes, and the like." The Corps also takes jurisdiction over isolated wetlands such as vernal pools (not adjacent to waters of the United States) that are used for interstate commerce or are used by endangered species or migratory birds. Discharge of fill is authorized under an individual permit or under one or more of several pre-authorized nationwide permits. Whether the project would require an individual permit or would fall under one of the nationwide permits would be determined by the Corps. The EPA has oversight authority on Corps permits and may have authority over fill that is placed or removed, depending on the makeup of the fill. Corps regulations that pertain to this project are discussed in more detail in Chapter 4, Section 4.3, Biological Resources, under Section 4.3.2, Wetlands and Other “Jurisdictional” Waters, and Section 4.3.3, Impact 4.3-5, regarding impacts on seasonal drainage channels and in-channel wetlands.

U.S. FISH AND WILDLIFE SERVICE (USFWS) – ENDANGERED SPECIES ACT SECTION 7 CONSULTATION

The federal Endangered Species Act has provided the USFWS with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. A permit may be required from the USFWS if activities associated with a proposed project will result in the “take” of a listed species. Due to the presence of the California Tiger Salamander (CTS) within the study area and the potential for project construction to result in a “take” of individuals, the project proponent will be required to secure authorization for incidental take through the Section 7 consultation process with the USFWS to ensure adherence to the prohibition against unauthorized take under the Federal Endangered Species Act. Authorization for take incidental to otherwise lawful development projects requires consultation with USFWS to avoid potential impacts to rare, endangered, and threatened species and the acceptance of appropriate mitigation planning to offset project caused losses of listed species.

3.4.2 STATE PERMITS/REVIEW AUTHORITY

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (CDFW) – SECTION 2080.1 CONSISTENCY DETERMINATION OR 2081(b) INCIDENTAL TAKE PERMIT AND SECTION 1600-1607 (STREAMBED ALTERATION AGREEMENT)

The California Endangered Species Act has provided the CDFW with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. A permit may be required from the CDFW if activities associated with a proposed project will result in the "take" of a listed species. "Take" is defined by the state of California as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (California Fish and Game Code, Section 86). Due to the presence of CTS within the study area and the potential for project construction to result in a "take" of individuals, the project proponent will be required to secure authorization for incidental take through a 2080.1 Consistency Determination or 2081(b) incidental take permit with CDFW to ensure adherence to the prohibition against unauthorized take under the California Endangered Species Act. Authorization for take incidental to otherwise lawful development projects requires consultation with CDFW to avoid potential impacts to rare, endangered, and threatened species and the acceptance of appropriate mitigation planning to offset project caused losses of listed species.

The CDFW also exercises jurisdiction over wetland and riparian resources associated with rivers, streams, and lakes under California Fish and Game Code Sections 1600 to 1607. The CDFW has the authority to regulate work that will substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed. Pertinent CDFW regulations are discussed in detail in Chapter 4, Section 6.2.3, State Fish and Game Code.

STATE WATER RESOURCES CONTROL BOARD (SWRCB ORDER NO. 2009-09-DWQ) – CONSTRUCTION GENERAL STORMWATER PERMIT (GENERAL PERMIT)

Project development would disturb more than one acre of land during construction and, therefore must be covered under the State NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). The project sponsor will be required to file a Notice of Intent with the State Water Resources Control Board, Division of Water Quality. The project sponsor must propose and implement control measures that are consistent with the General Permit and with the recommendations and policies of the local agency and RWQCB. The General Permit will require preparation of a Storm Water Pollution Prevention Plan (SWPPP), which must be consistent with the terms of the General Permit, Manual of Standards for Erosion and Sedimentation Control Measures by the Association of Bay Area Governments (ABAG), policies and recommendations of the local urban runoff program (SCVWD), and the staff recommendations of the RWQCB.

3.4.3 REGIONAL PERMITS/REVIEW AUTHORITY

SAN FRANCISCO BAY REGIONAL WATER QUALITY CONTROL BOARD – MUNICIPAL REGIONAL STORMWATER NPDES PERMIT (PROVISION C.3.g; PERMIT NO. R2-2009-0074)

Provision C.3.g of the Municipal Regional Stormwater NPDES Permit (Order R2-2009-0074) requires that certain new development projects manage increases in stormwater runoff flow and volume so that the post-project runoff does not exceed the estimated pre-project runoff rates and durations. The proposed project site is located within a zone of special consideration for San Lorenzo and Alameda Creeks, and therefore the hydromodification requirements of Provision C.3.g would apply.

3.4.4 LOCAL PERMITS/REVIEW AUTHORITY

CITY OF PLEASANTON - TREE REMOVAL PERMIT

The project sponsor will be required to obtain a tree removal permit from the City of Pleasanton for the removal of any protected trees as defined by the City's Heritage Tree Ordinance.

CITY OF PLEASANTON - ENCROACHMENT PERMIT

The project sponsor may be required to obtain an encroachment permit from the City of Pleasanton for required road improvements.

CHAPTER 4 SETTING, POTENTIAL IMPACTS, AND MITIGATION MEASURES

4.1 LAND USE, PLANS, AND POLICIES

This section evaluates the project's consistency with applicable land use plans, goals, and policies and also addresses land use compatibility issues.

4.1.1 ENVIRONMENTAL SETTING

EXISTING LAND USES

The project site is a cattle and livestock ranch. The site is located in an area surrounded by other residential and agricultural uses, including the Ventana Hills, Mission Hills, Sycamore Heights, and Bonde Ranch subdivisions to the west, the Kottinger Ranch subdivision to the north, the Foley cattle ranch to the east, and the Spotorno cattle ranch to the south.

Surrounding land uses include: existing medium-density single-family residential to the north, proposed low-density single-family residential to the west, and undeveloped to the south and east.

AGRICULTURAL RESOURCES

A historic assessment of the Lund Ranch property indicates that it has been used for agricultural purposes since the 1870s. Due to the predominant topography of the ranch, the primary use of the project site has been cattle grazing. The evaluation of historic and cultural resources occurring on the property identifies several structures that supported the agricultural uses on the site. In addition to the main ranch house, the site contained three barns, a blacksmith's shop, a slaughterhouse, and associated outbuildings. The property continues to provide grazing land for cattle on an intermittent basis. While the City of Pleasanton General Plan recognizes agriculture and grazing uses (Conservation and Open Space Element (pages 7-25 through 7-28) within the Planning Area, the General Plan designates the project site for residential and open space uses.

4.1.2 CONFORMANCE WITH LOCAL PLANS AND POLICIES

The following discussion identifies the extent to which the proposed project fulfills or conflicts with adopted and proposed land use objectives and policies that apply to the project site.

CITY OF PLEASANTON GENERAL PLAN 2005 – 2025 (2009)

The City of Pleasanton General Plan 2005 – 2025 (2009) provides guidance and direction for the long-term development of land and the conservation of resources in the City. The Plan presents an overview of the community's historic development, its existing conditions and characteristics, and the framework for goals and policies to achieve the community's vision of itself in the foreseeable future. As indicated by the Plan, it is meant to be general and flexible enough to allow for future change but specific enough to guide citizens and decision makers at the policy level. The Plan includes thirteen General Plan Elements that identify the various components integral in the development of a community's character. The goals, policies, and implementation programs for each General Plan Element will be addressed in the appropriate section of this report.

CITY OF PLEASANTON GENERAL PLAN ELEMENTS

- Land Use Element
- Circulation Element
- Housing Element
- Public Safety Element
- Public Facilities and Community Programs Element
- Conservation and Open Space Element
- Water Element
- Air Quality and Climate Change Element
- Energy Element
- Noise Element
- Community Character Element
- Economic and Fiscal Element
- Subregional Planning Element

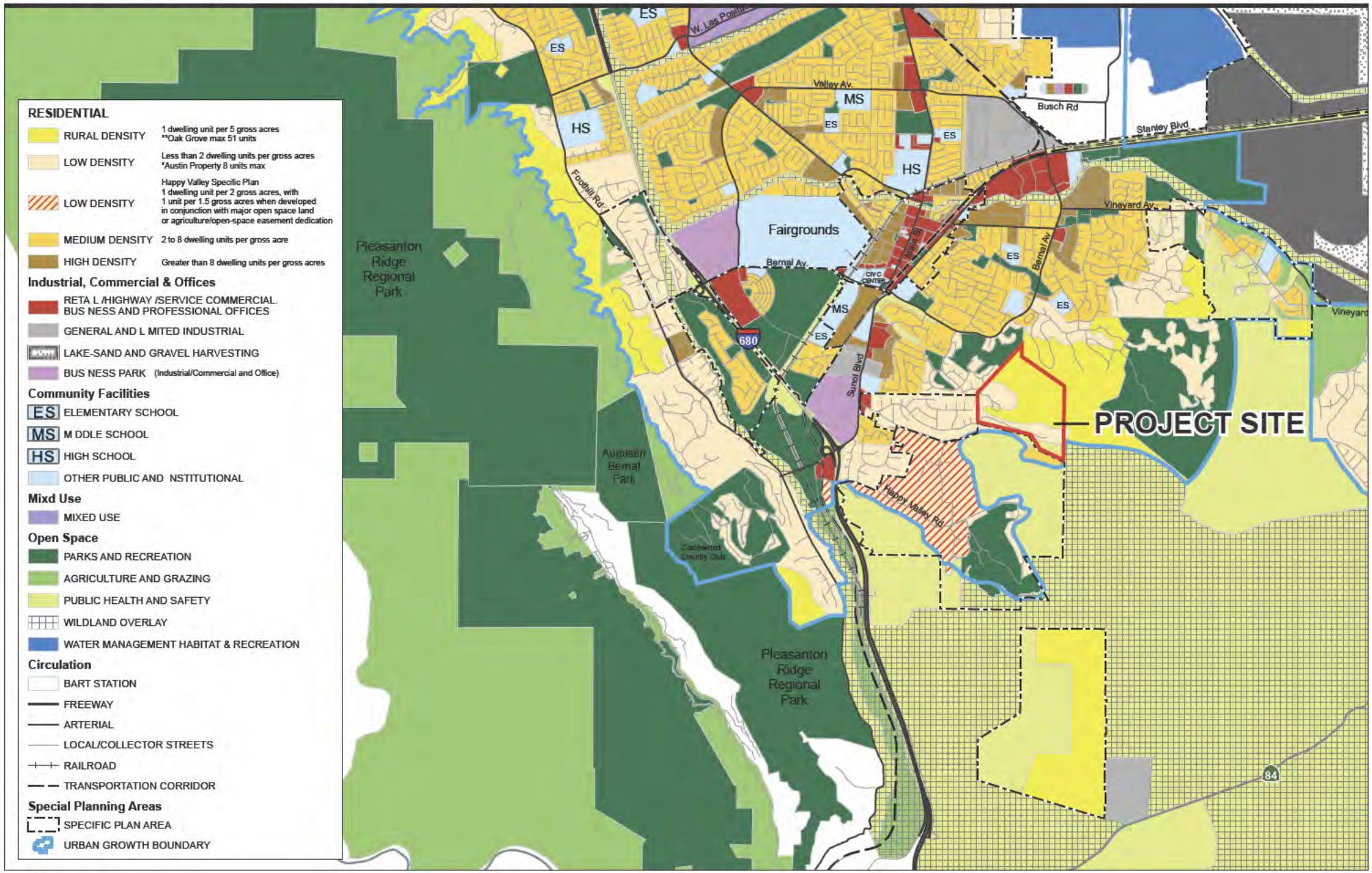
Land Use Element. The Land Use Element of the General Plan establishes nineteen land use categories with which development must be consistent. The General Plan Map illustrates the general location where these uses are allowed within the Planning Area. All proposed projects must conform to the land use designation(s) shown on the General Plan Map.

The project site is designated in the Land Use Element of the Pleasanton General Plan as having 0.29 acre in the "Medium Density Residential" land use category, 58.43 acres classified for "Low Density Residential" land use, and 123.04 acres in the "Rural Density Residential" land use category (**Figure 4.1-1**). The General Plan indicates that residential properties which have unusual topography, other characteristics which do not lend themselves to development under standard zoning, or unique features which a developer wishes to incorporate within the site should be zoned Planned Unit Development (PUD). The maximum number of units allowed on parcels zoned PUD shall not exceed the maximum for the underlying General Plan Map designation, multiplied by the number of gross developable acres in the parcel. Gross developable acres include all privately owned acreage within a parcel and exclude all publicly owned facilities (e.g., City-owned parks, flood control channels, and public school sites) or such sites planned for purchase by a public agency. Acreage to be devoted to publicly owned facilities dedicated as part of a project (e.g. roadway rights-of-way, parks, and trails) are included as "gross developable acres" unless such acreage is rendered undevelopable by other General Plan provisions.

Residential projects proposed for land designated as Rural Density Residential should be encouraged to cluster home sites on lots of one acre or larger but may include any housing type. Residential projects proposed for land designated as Low and Medium Density Residential should propose densities generally consistent with the average densities assumed for buildout of the General Plan and may include any

General Plan Land Use Map

Figure 4.1-1



Source: City of Pleasanton (February 2013)

housing type. Low and Medium Density projects which propose densities greater than the average shown in the General Plan should be zoned PUD and contain sufficient public amenities to justify for the higher density. **Table 4.1-1** presents the range of densities for the General Plan's land use designations.

TABLE 4.1-1

GENERAL PLAN DENSITIES

Land Use Designation	Allowable Density Range	Average Density for Holding Capacity
Rural-Density Residential	0-0.2 du/acre	0.2 du/acre
Low-Density Residential	0-2 du/acre	1.0 du/acre
Medium-Density Residential	2-8 du/acre	5.0 du/acre
High-Density Residential	8+du/acre du/acre	5.0 du/acre
Mixed-Use: Residential Commercial	20+ du/acre [a] 0-150 % FAR	Not Applicable [a]
Mixed Use/ Business Park	[c]	[c]
Commercial/ Office	0-60 % FAR [b]	35 % FAR
General & Limited Industrial	0-50 % FAR	31 % FAR
Business Park	0-60 % FAR	32 % FAR
Sand and Gravel Harvesting	Not Applicable	Not applicable

NOTES: du = dwelling unit(s), FAR = floor area ratio

[a] This will be based on a planned unit development (PUD) or Specific Plan, as either may be amended from time to time, subject to the 150 percent maximum FAR..

[b] An FAR of up to 300 percent is allowed in the Downtown Specific Plan area.

[c] Projects may use the Mixed Use FAR and density ranges only if they include uses that are authorized by the Mixed Use land use designation. Conventional business park projects shall be subject to the FAR limitations in the Business Park land use designation.

SOURCE: Community Development Department (2008)

Examples of amenities that might qualify a project for density bonus include the provision of affordable housing, and dedication and/or improvement of parkland, open space, and/or trails beyond the standard requirements. Low Density projects zoned PUD may exceed the maximum density on portions of the site, as long as the overall density for the entire site does not exceed the overall maximum permitted. Housing with increased densities on portions of the parcel must be sited to minimize potential adverse impacts on adjacent, developed properties.

As listed in Appendix B of the adopted Housing Element (City of Pleasanton, 2012a), the site would have a holding capacity (or General Plan midpoint density) of 83 dwelling units for the site and the maximum number of units that could be built on the project site is 142. This number of units comprises 116 units on 58.43 acres designated for Low Density Residential, 1 unit on 0.29 acre designated for Medium Density Residential, 0 units on 13.29 acres designated for Public Health and Safety, and 24 units on 195.07 acres designated for Rural Density Residential. The midpoint density number of units would encompass 58 rather than 116 Low Density Residential dwellings, totaling an allowable 83 units for development on the project site.

Urban Growth Boundary. The Land Use Element also presents a discussion of the City's Urban Growth Boundary (UGB). This boundary limiting urban growth extends along a portion of the project site's southern property line (Figure 4.1-1). The General Plan Map designates the Urban Growth Boundary (UGB) line around the edge of land planned for urban development at General Plan buildout. The line distinguishes areas generally suitable for urban development and the provision of urban public facilities

and services from areas generally suitable for the long-term protection of natural resources, large lot agriculture and grazing, parks and recreation, public health and safety, subregionally significant wildlands, buffers between communities, and scenic ridgeline views.

Pleasanton voters ratified the Urban Growth Boundary in 1996. The line distinguishes areas generally suitable for urban development where urban public facilities and services are provided from those areas not suitable for urban development. Areas outside the Urban Growth Boundary are generally suitable for the long-term protection of natural resources, large-lot agriculture and grazing, parks and recreation, public health and safety, subregionally significant wildlands, buffers between communities, and scenic ridgeline views. The Urban Growth Boundary is intended to permanently define the line beyond which urban development will not occur, although the initiative also described some circumstance under which the Urban Growth Boundary could be adjusted.

Growth Management. The City's Growth Management Program (GMP) is designed to ensure that new residential development occurs at a rate that can be supported by the City's infrastructure, facilities, and services and that supports new job growth and the City's share of regional housing needs. The GMP also encourages the provision of housing for all economic segments of the community. As an example, additional units over the normal allotment are reserved for projects containing 25 percent or more lower-income units. Currently the Growth Management Ordinance:

- Establishes an annual limit for new residential units.
- Requires the apportionment of yearly total new residential units to categories of projects (i.e., affordable projects; major projects; first-come, first-served projects; small projects).
- Defines a process for obtaining an allocation under the program.

The Growth Management process occurs annually through the completion of a Growth Management Report that provides an overall and detailed assessment of housing conditions in the City. The Report functions as a monitoring mechanism that tracks housing construction within the City relative to regional housing goals. The annual Report allows the City to determine Growth Management allocations for the year.

Housing Element. The Housing Element of the City of Pleasanton General Plan was updated and adopted on February 13, 2012 and amended June 5, 2012. The Housing Element provides a detailed and comprehensive analysis of housing conditions within the community. In addition to demographic information for Pleasanton, this element evaluates the existing housing supply and conditions, identifies housing needs, both regional and local, and presents a housing action plan. In support of the City's plan to meet local and regional housing needs, the element identifies specific constraints to the provision of additional housing and defines goals, policies, and programs that will assist in the City's efforts to fulfill its housing requirements. Appendix B of the Housing Element lists and maps all residentially-zoned parcels without current development approvals. As indicated above, this list includes the Lund Ranch site

and indicates that the site has a holding capacity (or General Plan midpoint density) of 83 dwelling units for the site, and the maximum number of units that could be built on the project site is 143.

Project consistency with relevant land use, open space and housing policies is discussed below.

General Plan Policies	Project Analysis
Land Use Element - Overall Community Development	
Policy 4: Allow development consistent with the General Plan Land Use Map.	The project design proposes types of residential land use and open space that are consistent with the guidance and direction provided through the General Plan's Land Use Map and Element. The General Plan identifies specific programs entailing the use of the City's Zoning Ordinance and development review procedures to maintain the character of existing residential neighborhoods.
Residential *Policy 8: Preserve and enhance the character of existing residential neighborhoods.* *Policy 9: Develop new housing in infill and peripheral areas which are adjacent to existing residential development, near transportation hubs or local-serving commercial areas.* *Policy 10: Provide flexibility in residential development standards and housing type consistent with the desired community character.* *Policy 11: Residential density is determined by the General Plan density range or applicable specific plan as outlined below:* *Residential projects proposed for land designated as Low- and Medium-Density Residential should propose densities generally consistent with the average densities assumed for buildout of the General Plan, as shown in Table 2-3 of the General Plan Land Use Element.*	The proposed residential project includes a range of three housing plans each containing three housing styles to ensure a variety of housing types that would be consistent with design review standards and compatible with the existing housing types of adjoining neighborhoods. The project intends to construct new residences at densities that are consistent with those indicated by the General Plan 2005 – 2025.
Open Space *Policy 19: Preserve open space areas for the protection of public health and safety, the provision of recreational opportunities, use for agriculture and grazing, the production of natural resources, the preservation of wildlands, and the physical separation of Pleasanton from neighboring communities.*	The proposed project preserves approximately 161 acres of open space encompassing steeply sloping grasslands and oak woodlands, maintains the habitat values associated with these lands, provides new trails and access to lands presently unavailable as amenities for community use. While agricultural uses would be displaced by the proposed residential development, the overall effects of converting the project area from agricultural to residential use was evaluated as part of the General Plan EIR.
Policy 21: Preserve scenic hillside and ridge views of the Pleasanton, Main, and Southeast Hills ridges.	The proposed project was designed to confine residential uses to the site's lower elevations on natural slopes of less than 25%. The proposed residences would also be required to be situated a minimum of 100 vertical feet below the ridgelines to comply with ridgeline protection

General Plan Policies	Project Analysis
	measures. This will likely require the lowering of pad elevations and/or the elimination of up to five proposed lots.
Growth Management	
Policy 22: Maintain a permanent urban growth boundary (UGB) beyond which urban development shall not be permitted.	The proposed residential and open space uses occur within boundary of lands designated for urban development by the General Plan.

OTHER LAND USE PLANNING INSTRUMENTS

The Lund Ranch II project site adjoins two study areas that are the subject of individual specific plans that identify land use goals and policies for the properties within their respective boundaries. The North Sycamore Specific Plan and Happy Valley Specific Plan areas are located to the west and south of the project site, respectively. The project site is not within either of these areas and the two specific plans for these areas do not directly control the development of the Lund Ranch II project site. To the extent that the project's proposed residential use and the two specific plans are consistent with the General Plan, the project design would be compatible with the land use patterns and objectives planned for these two areas.

North Sycamore Specific Plan (NSSP). The study area for the North Sycamore Specific Plan (City of Pleasanton, 1992) is located immediately west and adjoining to the Lund Ranch II project site; however, the project site is not within the NSSP. The Plan and its supporting environmental documentation, *North Sycamore Specific Plan Draft EIR* (1990), acknowledge future residential development of the Lund Ranch II site and address its development in a general manner through the assessment of cumulative effects of planned development. Development plans for the project site presented in the NSSP entail 151 dwelling units distributed throughout the property.

The NSSP provides for circulation and connection of the Plan Area to adjacent areas through the development of east-west and north-south connectors as part of the Plan Area buildout. Specifically, a connection to the lands east of the NSSP Area (i.e. Lund Ranch II) was planned through the extension of the east-west collector and possibly a local street. The NSSP also addresses street connections to adjacent developable areas in Chapter V.C.1., indicating that such connections include "one into the Lund II development." The development of the circulation network in the NSSP Area has resulted in the construction of Sycamore Creek Way to provide access for the Bridle Creek and Sycamore Heights neighborhoods, with potential connection to southeastern Pleasanton as the NSSP's planned north-south collector. Sycamore Creek Way terminates at the eastern boundary of the NSSP Area near the City's Water Reservoir at 1100 Sycamore Creek Way, with no direct access to the Lund Ranch II site.

The NSSP's proposed connection to the Lund Ranch II development would be available through an extension of Sunset Creek Lane, a local residential street in the Sycamore Heights neighborhood. However, the project design proposes to extend Lund Ranch Road, a local residential street in the Ventana Hills neighborhood, from its current terminus at the project site's western boundary onto the site

for access to the new residences. It should be noted that the NSSP acknowledges that "steep slopes may be a constraint in the northeastern, north central and southeastern portions of the project site" and that "other areas may require special treatments so as to minimize extensive grading." The development plans for the Lund Ranch II project site address this recognized constraint of steep slopes by restricting access to the proposed project to the relatively gentle slopes of the project site's lower elevations along Lund Ranch Road.

The project applicant indicates that Lund Ranch II is an extension of the NSSP in that Lunch Ranch II was identified in the NSSP as one of the "funding developers" for the capital improvements required to serve the NSSP area. The NSSP Finance Plan included Lund Ranch II as a Funding Developer subject to the NSSP Infrastructure Fee. Consequently, the infrastructure for the NSSP is sized to serve the development proposed for Lunch Ranch II. While there is an interconnection between the NSSP Study Area and Lund Ranch II for infrastructure planning and financing purposes, the project site is outside of the Plan area and therefore not directly subject to the Plan's goals and policies.

Happy Valley Specific Plan. The Happy Valley Specific Plan (HVSP; City of Pleasanton, 1998) provides land use planning guidance for a study area of approximately 860 acres immediately south of the Lund Ranch project site. The HVSP has several objectives. For residential development, the HVSP indicates perpetuation of semi-rural uses and lot patterns, and clustering of low and medium density residential uses to preserve large areas of open space. Recreation uses would be enhanced through the development of a high-quality municipal golf course. Additionally, the Plan indicates open space would be preserved through public land acquisition and easements, which would facilitate preservation of the Plan area's natural environment.

The HVSP includes an extensive discussion of a vehicular circulation system that involves the construction of a Bypass Road that would provide access to the Spotorno and Golf Course properties in the southeastern part of Pleasanton. The Bypass Road would cross the HVSP Area in a north-south orientation linking the north-south connector proposed by the NSSP for the Sycamore Heights neighborhood with the Golf Course area. As described above, the northern connection of the HVSP-proposed Bypass Road would occur at Sycamore Creek Way south of the City's water reservoir at this location. The connection of the HVSP Bypass Road with the NSSP north-south collector (Sycamore Creek Way) is not contingent upon the proposed development plans for the Lund Ranch II site and would not require the use of Lund Ranch II lands.

CITY OF PLEASANTON ZONING ORDINANCE

The Pleasanton Zoning Ordinance, Chapter 18 of the City Municipal Code, has been enacted to protect and to promote the public health, safety, peace, comfort, convenience, prosperity and general welfare (City of Pleasanton, 2013b). More specifically, the ordinance is designed to provide a precise guide for the physical development of the city in such a manner as to achieve progressively the arrangement of land uses depicted in the general plan adopted by the city council. The ordinance also promotes the stability of

existing land uses that conform with the general plan and "to protect them from inharmonious influences and harmful intrusions."

The project site is currently zoned Planned Unit Development, Low Density Residential (PUD – LDR) and Open Space (PUD – OS) (**Figure 4.1-2**). The Zoning Ordinance indicates that the planned unit development district is intended to encourage imagination and housing variety in the development of property of varying sizes and topography, avoiding the monotony of standard residential, commercial and industrial developments. The planned unit development procedure ensures that the desires of the developer and the community are understood and approved prior to commencement of construction.

The implementation of a planned unit development designation for a project site promotes the goals and objectives of the city's general plan without discouraging innovation by application of restrictive development standards. The use of this zoning district also provides a mechanism whereby the city can designate parcels and areas requiring special consideration regarding the manner in which development occurs. Planned unit development districts encourage the establishment of open areas in residential, commercial and industrial developments and provide a mechanism for insuring that these areas will be beautified and/or maintained.

PLANNED UNIT DEVELOPMENT ZONING DESIGNATIONS

HDR	High Density Residential
MDR	Medium Density Residential
LDR	Low Density Residential
TC	Transportation Corridor
G-L-I	General & Light Industrial
I/C-O	Industrial/Commercial Offices
OS	Open Space
CP	Community Park

CITY OF PLEASANTON MEASURES PP AND QQ

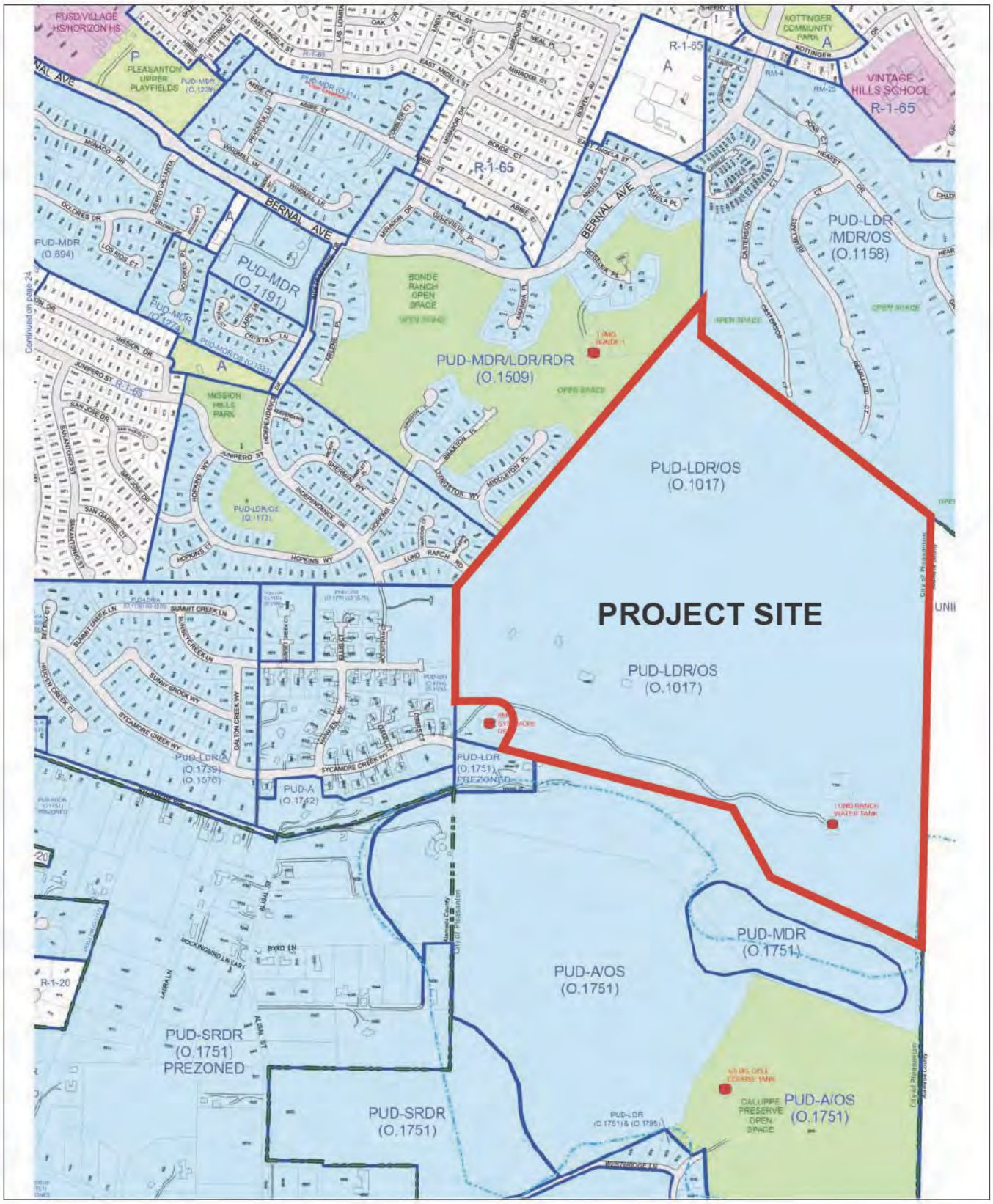
In the November 2008 general election, Pleasanton voters adopted two ballot measures regarding General Plan policy[1]:

1. Save Pleasanton's Hills and Housing Cap (Measure PP), a voter initiative; and
2. The Pleasanton Ridgelines Protection and Growth Control Initiative (Measure QQ), a City Council measure.

These two measures were incorporated into the 2005-2025 Pleasanton General Plan adopted by the City Council on July 21, 2009.

Measure PP (see attached Appendix G for full text of the initiative from November 2008 *Voter Guide*) limits the placement of housing units and structures on slopes of 25% or greater or within 100 vertical feet of a ridgeline, limits grading on slopes of 25% or more or within 100 feet of a ridgeline to build residential or commercial structures, and exempts from these restrictions projects of ten or fewer housing units on property that constitutes a single legal parcel, as of January 1, 2007. Measure PP also limits subdivision of a legal parcel, as of January 1, 2007, to approve more than 10 housing units.

[1] As subsequent litigation determined that Pleasanton's earlier voter adopted housing cap was in conflict with State law, those portions of Measures PP and QQ related to the housing cap are not discussed here.



Source: City of Pleasanton (February 2013)

Measure QQ (see attached Appendix G for full text of measure from November 2008 *Voter Guide*) reaffirms and readopts policies in the then existing General Plan to: (A) preserve scenic hillside and ridge views of specific ridges; (B) study the feasibility of preserving large open space areas in the Southeast Hills; and(C) protect large contiguous areas designated as Open Space in the General Plan.

With the adoption of Measure PP, its provisions are included in the current General Plan 2005-2025 as follows:

> Land Use Element - Program 21.3: Ridgelines and hillsides shall be protected. Housing units and structures shall not be placed on slopes of 25 percent or greater, or within 100 vertical feet of a ridgeline. No grading to construct residential or commercial structures shall occur on hillside slopes 25 percent or greater, or within 100 vertical feet of a ridgeline. Exempt from this policy are housing developments of 10 or fewer units on a single property. Splitting, dividing, or subdividing a "legal parcel" to approve more than 10 housing units is not allowed.

With the adoption of Measure QQ[2], the re-adopted policies and program are set forth in the current General Plan 2005-2025 at:

- Land Use Element - Policy 21: Preserve scenic hillside and ridge views of the Pleasanton, Main and Southeast Hills ridges.
- Land Use Element - Program 21.2: Study the feasibility of preserving large open-space areas in the Southeast Hills by a combination of private open-space and a public park system.
- Open Space Element - Policy 6: Protect all large continuous areas of open space, as designated on the General Plan Map, from intrusion by urban development.

The application of Measures PP and QQ to the proposed project requires reasonable interpretation of the relatively general language of these two measures, including the undefined terms “slope", "ridgeline" and "structure," in light of their stated purposes and indicators of voter intent, considered with the specifics of the proposed project.

<u>Measure PP</u>.
Measure PP's stated purpose is to "... protect our city from uncontrolled growth and the impact it has on ridgelines and hillsides, traffic, schools, water supply and our overall quality of life." Measure PP aims to achieve its purpose with the limitations set forth in Land Use Element Program 21.3. This voter initiative did not include definitions of "structure" or "ridgeline", nor describe how to measure "slope".

[2] After passage of both ballot measures, at its meeting of December 16, 2008, the City Council concluded that Measure QQ's description of a public process for the development of an ordinance and design guidelines for hill area and ridge protection had been fulfilled by voter adoption of Measure PP.

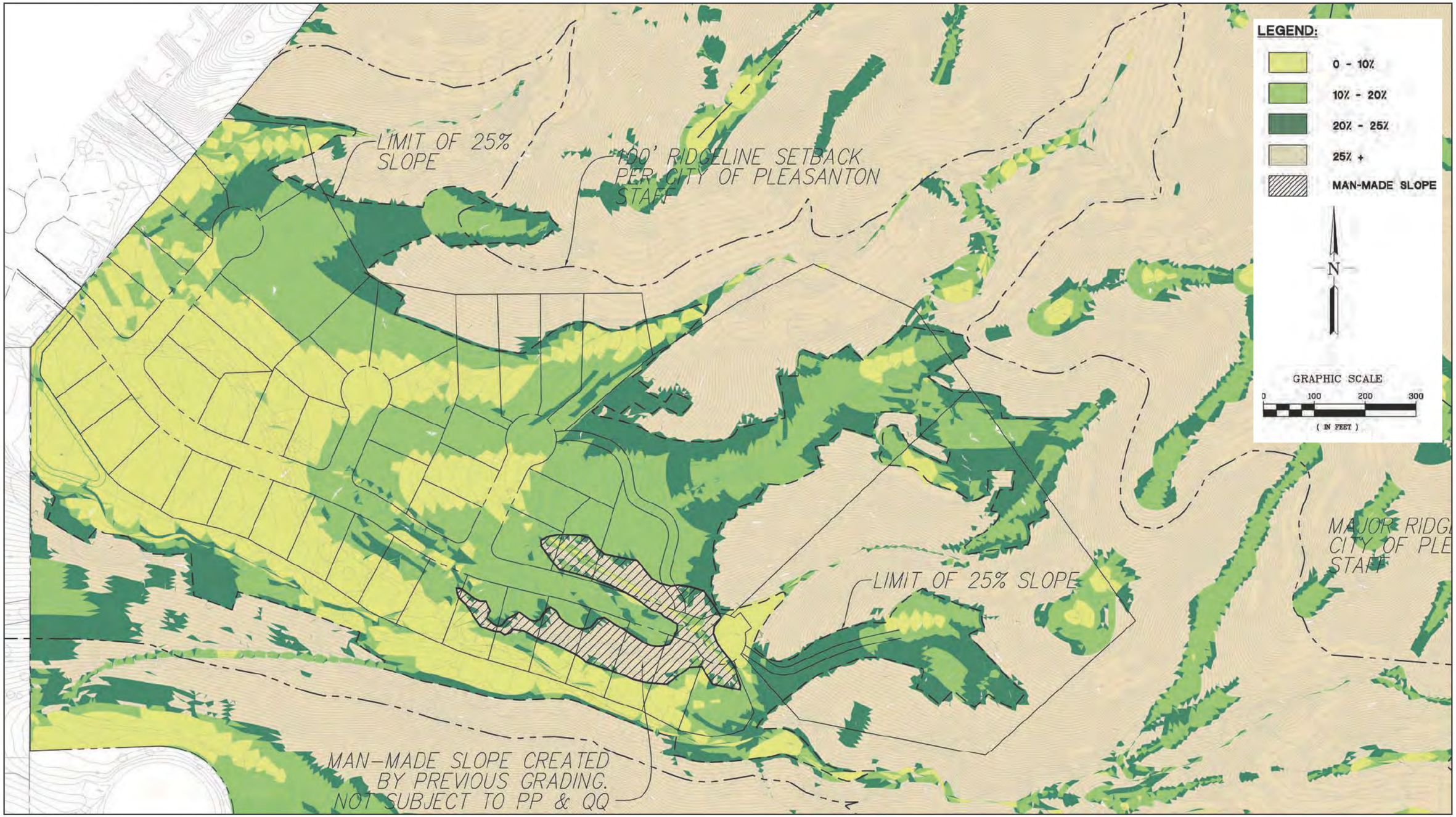
After Measure PP qualified, the City Council had an Elections Code section 9212 (referral of proposed initiative measure to city agency for report) analysis (June 17, 2008) prepared before deciding whether to adopt the measure or put it before the voters. This report further highlighted the lack of definition of key terms, the variety of possible interpretations, and the questions of applicability. Initiative measure proponents attending City Council public meetings where the report was considered offered some comments as to potential interpretations. However, that report and comments were not a part of the *Voter Guide* before the voters.

The ballot materials submitted to the voters highlight that Measure PP requires interpretation. For example, the City Attorney's Impartial Analysis (Attached as Appendix G) explained that "some clarification of the terms in the Measure (e.g., 'structure', 'ridgeline', how to measure 'slope') may be necessary in order that the General Plan policies remain internally inconsistent." Neither the Impartial Analysis nor the ballot arguments (Attached as Appendix G) provide clear guidance on how to interpret these undefined terms.

Accordingly, the City is charged with the responsibility of analyzing the project for consistency with Measure PP, as it may be reasonably interpreted, in light specifics of the project, and legal principles governing the interpretation of such ballot measures.

Placement of Housing Units. The first issue is whether the Project complies with the prohibition against placing housing units or structures on slopes of 25% or greater.

Figures 4.1-3 (Slope Map) and 4.4-1 show slopes for the site with the proposed project's lots superimposed. The proposed building locations of the lots are under 25% slope, except for five lots where expected building pad areas would be on manmade slopes that are in excess of 25% slope. These manmade slopes are not natural slopes. Rather, they are comprised of cuts created by prior grading to accommodate ranch roads and building pads for farm buildings. The central purpose of Measure PP is to protect the natural and scenic environment, not manmade conditions such as grading done in the past. (See, e.g., the text of Measure PP and the ballot arguments which discuss the preservation of hillsides and the majestic nature of the landscape.) Thus, the City may reasonably interpret Measure PP not applying to the slopes created by previous grading. Conversely, the City could interpret Measure PP to apply to any slope of 25% or greater, natural or manmade, because Measure PP provides for no exception or limitation. Under the first reasonable interpretation, the proposed building pad locations are consistent with the slope limitations of Measure PP. Moreover, this interpretation is consistent with the City Planning Commission's determination regarding development proposed on other manmade slope sites (e.g. Hana Japan restaurant Dublin Canyon Road). Therefore, under the foregoing analysis, the location of the building pads for housing units complies with the Measure PP restriction. However, should the City's decision makers instead conclude that the slope restrictions apply to the manmade prior grading with slopes of 25% or greater, the proposed project would be inconsistent with Measure PP with respect to five lots.



Source: Ruggeri-Jensen-Azar (February 2013)

The second issue is whether the Project complies with the requirement not to place housing units within 100 vertical feet of a "ridgeline," a term which is undefined by Measure PP. City staff has used its best professional judgment to identify ridgelines and to provide guidance for the proposed project. In Figures 4.1-3 and 4.4-1, the 100-foot ridgeline setback is shown, and proposed lots are outside of that area.

Measure PP is unclear if it prohibits the rooflines or tops of housing structures from being within 100 vertical feet of a ridgeline if the underlying lots are outside of that area. If City decision makers determine that ridgeline setback restrictions apply to tops of structures, a number of the project lots would be affected resulting in lower building pads, single story only height restrictions, etc.

Grading and Development of Roads. At issue is whether the project's proposal for the construction of roads is consistent with Measure PP. This issue turns on whether a road is a "structure" under Measure PP and whether grading for roads is governed by Measure PP.

This issue is of specific interest when considering access alternatives. Figure 4.6-1 (Project Site Location, Access Routes, and Study Intersections) shows the location of access alternatives. The alternative connecting the proposed project with Sycamore Creek Way would cross an area of 25% or greater slope, as well as an area marked as a ridgeline. This alternative would have Sycamore Creek Way as a second access point, not the only access for the proposed project.

Measure PP twice uses, but does not define, the term "structure". It provides: "Housing units and structures" are not to be placed on slopes of 25% or greater or within 100 vertical feet of a ridgeline, and "No grading to construct residential or commercial structures shall occur on hillside slopes of 25% or greater, or within 100 vertical feet of a ridgeline."

In the first sentence, no modifier precedes the term "structures." In the second sentence, the term "structures" is modified by the phrase "residential or commercial." The City could reasonably interpret this modifying phrase also to apply to the term "structures" in the first sentence, because Measure PP neither identifies nor addresses any other structures. Moreover, given that Measure PP (1) identifies different types of structures and (2) does not provide an open-ended list or broad qualifier (e.g., "such as" or "including without limitation" or "housing units and *other* structures"), one reasonable interpretation of the text of Measure PP is that "structures" means residential and commercial structures only (e.g., homes, businesses, and ancillary structures such as garages).

The ballot materials provide some support for this interpretation. Notably, Measure PP's proponents' ballot arguments did not assert that roads were structures subject to Measure PP, and they stated that smaller, exempt projects of 10 or fewer units could proceed without suggesting that the exemption depended upon whether the necessary roads were on slopes less than 25% and more than 100 vertical feet from a ridgeline.

In addition, the General Plan that Measure PP amends and the General Plan today, refer to roads as a type of "infrastructure." By contrast, when referring to "structures," the General Plan existing at the time of Measure PP's adoption by the voters and the General Plan today refer to buildings (not roads). Since Measure PP amends the General Plan, the term "structure" in Measure PP should be construed consistently with its usage in the General Plan which it amended. This strongly suggests that term "structures," as used in the General Plan, including as amended by Measure PP, refers to buildings and not to roads or other infrastructure.

Moreover, Measure PP expressly prohibits "grading to construct residential or commercial structures" on steep slopes or near ridgelines. It does not expressly prohibit grading to construct roads on steep slopes or near ridgelines. Typically, principles governing the meaning of ballot measures such as Measure PP would take that language into account and support the conclusion that Measure PP was not intended to more broadly or generally preclude grading to construct roads.

Again, however, reasonable counter-arguments could be made, i.e., that roads are "structures" as the term is used in Measure PP. The bases for such an argument could include the following: (1) roads inherently have structural elements to support vehicles and pedestrians, particularly on steep slopes, (2) the intent of Measure PP was to restrict construction, (3) if "structure" only means residential and commercial structures, then public buildings such as water tanks would be excluded from the reach of Measure PP, and (4) the ballot argument against Measure PP asserted it would block the Happy Valley by-pass road.

Subdivision. The final two sentences of Measure PP address exemptions and subdivisions: "Exempt from this policy are housing developments of 10 or fewer housing units on a single property that was, as of January 1, 2007, "legal parcel" pursuant to the California Subdivision Map law. Splitting, dividing or sub-dividing a 'legal parcel' of January 1, 2007 to approve more than 10 housing units is not allowed." The City Attorney's Impartial Analysis noted that this language would be subject to various interpretations.

The present site is a single parcel of 194.8 acres, and the proposed project would subdivide the land to create 50 new parcels[3] for homes, another parcel containing 161 acres of public open space, and an additional one half acre parcel to be a detention basin for storm water runoff treatment. Thus, the proposed project would subdivide a single lot into 52 new parcels, plus streets dedicated as public right of way to the City. The City has interpreted the Measure PP restriction on subdividing legal parcels as of January 1, 2007 to prohibit the creation of parcels for housing units on slopes of 25% or greater or within 100 vertical feet of a ridgeline, but not to all parcels within the City limits. Thus, to the extent the Project does not propose the construction of housing units, or grading for the construction of housing units, on slopes greater than 25% or within 100 feet of a ridgeline, the subdivision restriction does not apply.

[3] When hillside areas were generally reviewed in the Election Code §9212 report (June 2008), the current site had a maximum development potential of 86 homes, but was seen as being potentially effected by Measure PP's subdivision limits such that the site might be limited to just 10 housing units. This general review in the §9212 report has been reconsidered in light of the detailed topographic analysis presented with the proposed project and further analysis of Measure PP.

However, were the City to interpret the 25% slope restriction to apply to manmade slopes or the 100-foot ridgeline restriction to apply to the tops of structures, the subdivision restriction could apply.

Measure QQ.
Measure QQ's readopted policies and programs apply, or are inapplicable, to the proposed project as follows:

Land Use Element Policy 21 requires preservation of scenic hillside and ridge views of specific ridges, including the Southeast Hills ridges where this proposed project is proposed to be located. The proposed project's general limitation on grading on slopes of 25% or greater as required by Measure PP (see above discussion) and the clustering of development on just 18.9 acres (9.6% of the site) minimize hillside impact. Similarly, by prohibiting, as required by Measure PP (see above discussion), (i) housing units and structures within 100 vertical feet of a ridgeline; and (ii) grading to construct residential or commercial structures within 100 vertical feet of a ridgeline, the ridge views of the Southeast Hills are protected as required by Policy 21.

Land Use Element Program 21.2 seeks consideration of the feasibility of preserving open space through a combination of private open space as well as a public park. The proposed project is 50 units on 194.8 acres, with the proposed homes and supporting streets clustered onto 33.8 acres. The proposed project includes a 161-acre public open space parcel as well as 11.1 acres of private open space. The combined public and private open space comprise 88.4% of the proposed project site (see Project Development Plan, Figure 3-2). As the project is less than the General Plan density for the site, and includes significant public and private open space, the proposed project generally addresses the preservation of open space goal in Program 21.2.

Open Space Element Policy 6 applies to areas designated as open space in the General Plan Map. For the proposed project, the General Plan land use designation is a combination of low and rural density residential (as described more particularly in Section 4.1.2, above), so this policy does not specifically apply. Nevertheless, as discussed in relation to Land Use Element Program 21.2, above, the proposed project does include 172.1 acres of open space, which is 88.4% of the project site. And, because the proposed project's development area is clustered, the open space forms a large contiguous area as envisioned by this Policy 6.

4.1.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based on criteria in Appendix G of the CEQA Guidelines, a project will normally have a significant land use impact if the proposed project would:

- Physically divide an established community;

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

Based on the project's location, no impacts are anticipated with respect to the above criterion:

- *Conflict with any applicable habitat conservation plan or natural community conservation plan.* There are no adopted habitat conservation plans or natural community conservation plans that apply to the project site. Therefore, the proposed project would not result in a conflict with any applicable habitat conservation or natural community conservation plan.

CONSISTENCY WITH PLANNED RESIDENTIAL DENSITIES

Impact 4.1-1: The project proposes to develop residential uses at densities that are consistent with the average densities assumed for buildout of the General Plan. (Less than Significant)

The proposed project specifies the development of 50 dwelling units encompassing 48 single-family detached houses and two estate lots on the 194.8-acre project site. The PUD zoning for the property provides for a flexible approach to the residential development of the site, allowing for unique characteristics such as topography, habitat values, and public safety concerns. In order to account for these issues, the project design confines project development to 22.7 acres of the site. Of the remaining area, 161.0 acres would be dedicated to the City as open space and 11.1 acres would be incorporated into the two estate lots as private open space.

The guidelines of the General Plan Land Use Element (page 2-23) indicate that residential projects proposed for land designated Low Density Residential (LDR) are allowed a maximum of two dwelling units per gross developable acre. The developable acreage of the project site is constrained by the restrictions for hillside and ridgeline development.

The project plans provide for the development of Low Density Residential (LDR) uses on 16.1 acres of the property. The allowable density range for this designation is 0 to 2 d.u./acre. The General Plan defines an average density of 1.0 d.u./acre as appropriate for holding capacity determination.

The General Plan indicates that the maximum number of units allowed on parcels zoned PUD cannot exceed the maximum for the underlying General Plan Map designation multiplied by the number of gross developable acres in the parcel as defined by the General Plan. As indicated above and in the Housing Element, the site would have a holding capacity (or General Plan midpoint density) of 83 dwelling units for the site and the maximum number of units that could be built on the project site is 143 (116 units on 58.43 acres designated for Low Density Residential, 2 units on 0.29 acre designated for Medium Density Residential, 1 unit on 13.29 acres designated for Public Health and Safety, and 24 units on 195.07 acres designated for Rural Density Residential).

Mitigation Measure 4.1-1: *None required.*

CONTINUITY WITH EXISTING COMMUNITY

Impact 4.1-2: The project would not physically divide an established community. (Less than Significant)

Project development would convert the existing agricultural uses to residential and open space uses. The planning process conducted for the subject property during the revision of the City's General Plan resulted in the residential and open space designations as presented in the Land Use Map of the General Plan. On a broad and conceptual basis, the conversion of the site's existing grazing lands to future residential development was evaluated as part of the environmental review process for adoption of the Pleasanton General Plan 2005-2025 (2009).

Although the General Plan designates future residential use of the project site, there are numerous constraints and restrictions that are to be addressed as part of any future residential development proposed for the project site. The planning and environmental review procedures required by the General Plan ensure detailed analyses of specific development issues associated with the residential project design proposed for the site.

The types of residential and open space uses proposed for the project site would be compatible with existing residential uses on surrounding properties. Adjoining residential developments are also designated Planned Unit Development zoned to allow residential uses encompassing Rural, Low, and Medium densities. In addition, the Open Space designation for the site would be consistent with the open space uses of the Kottinger Ranch subdivision to the north and the Spotorno property immediately south of the site. Since the project's proposed residential and open space uses would continue the existing residential development pattern, would not significantly differ from existing land uses adjoining the site, and would comply with the land use designations of the General Plan, project implementation would not physically divide the established residential neighborhood in the project vicinity.

Mitigation Measure 4.1-2: *None required.*

REFERENCES – LAND USE

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City of Pleasanton, 1992. *North Sycamore Specific Plan.* Available online at http://www.cityofpleasantonca.gov/pdf/NorthSycamore-SP.pdf. Accessed on July 21, 2012.

City of Pleasanton, 1998. *Happy Valley Specific Plan.* Available online at http://www.ci.pleasanton.ca.us/pdf/plan-happyvalley-plan.pdf. Accessed on July 21, 2012.

4.2 AESTHETICS

4.2.1 SETTING

EXISTING VISUAL CHARACTER

The project site occupies a west-facing drainage amid low foothills of the Diablo Range overlooking the City of Pleasanton and southwestern portions of the Amador Valley in eastern Alameda County (**Figure 4.2-1**). The grass-covered foothill slopes are punctuated by oak woodland in the swales and canyon bottoms. Undeveloped ridges and upper slopes of the foothills, including the site, are visible from various locations in the southwestern portions of the valley floor, forming an attractive and defining feature of the local landscape. Taller peaks of the Diablo Range may be seen behind these low hills farther to the east. Higher, more prominent, heavily forested slopes of Pleasanton Ridge define the valley viewshed a short distance to the west of I-680 and tend to dominate the landscape from within the valley. The City of Pleasanton, rapidly approaching build-out on the valley floor, is characterized by extensive suburban residential and commercial development, predominantly three stories or lower in height.

Adjacent land use within a radius of one mile of the site is primarily residential development to the north and west, with areas of agricultural open space to the south and east. The project vicinity thus comprises two principal landscape character types: undeveloped foothill slopes characterized by grassland and oak woodland, including the project site and remaining undeveloped lands to the east; and hillside single-family residential development to the north and west and south.

VIEWSHED

In order to evaluate the potential visual effects of project development on public views from the community and surrounding area, a preliminary survey was conducted to identify the viewshed area for the project site as well as representative public viewpoints of the subject property from long- and mid-range locations, and in the project vicinity. The purpose of the survey was to identify potential locations that offer public views of the project site and to determine the extent to which the subject property is visible to the general public from these locations. Potential locations of particular concern included freeways, local roadways, parks, and other public gathering places for the community.

Distant Views. The project viewshed (area from which project would be visible) includes scattered viewpoints from the Amador Valley area and from various locations within Pleasanton. The extent of locations on the valley floor with actual views of the site are limited, with potential views largely blocked by existing foreground development. Distant views of the project site could be characterized as those approximately 2 to 3 miles from the project site. Principal viewing locations would include freeways (I-580 and I-680), shopping centers, and parks. The survey of sample distant locations indicated that public views of the project site from heavily used public locations such as the freeways in the project region are extensively obscured by freeway landscaping, landscape plantings on properties adjoining the freeways,

View of Project Site Terrain

Figure 4.2-1

Source: The Guzzardo Partnership, Inc. (February 2013)

and commercial structures adjoining the freeways. There are some distant views to the project area available from I-680, but for the most part, these are brief, intermittent views that are blocked by intervening development and freeway landscaping.

There is one 0.3-mile stretch of open, unlandscaped area along the east side of I-680 immediately south of the Bernal Avenue southbound on-ramp that allows an unobstrucred view of the site's ridgeline and hillsides for passing motorists. At a speed of 65 miles per hour (mph), the site as well as surrounding hills and ridges are visible for a brief period (approximately 17 seconds) to southbound vehicle passengers. The view of the project vicinity is approximately 2 to 2.25 miles distant from I-680. This background view constitutes one of grassland hillsides and ridges covered with scattered stands of oak trees rising from a valley floor that is in the process of undergoing urbanization.

Mid-range Views. The review of possible locations for potential mid-range views of the project site considered relatively closer viewing areas, in the range of approximately 0.5 to 2 miles from the subject property. For the principal views of the project site's western hillside slopes and ridges, locations such as Bernal Avenue, the Alameda County Fairgrounds, and Bernal Community Park were considered as potential viewing locations for the evaluation of the project's potential effects on these visual resources.

Preliminary assessments of views towards the project site from Bernal Avenue indicated that the most prominent view of the site's hillsides and vicinity were along a 0.32-mile eastbound section of the road between Valley Avenue and Pleasanton Avenue. The distance to the project site ranges from approximately 2 to 1.75 miles, with views of the site generally available but intermittently obstructed by off-stie and street trees. Due to these distances, the views to the site's hillsides and adjoining ridges appear more as background views rather than mid-ground scenery.

Views of the project site from the Alameda County Fairgrounds entail similar distances (approximately 2 to 1.75 miles) as those for the views from Bernal Aveue. The fairgrounds also include substantial intervening tree landscaping between the venue and the potential views to the project site. As a result, views of the project site's hillsides and ridges are extensively obscured by local landscaping and were eliminated from further review.

A third potential viewing location, Bernal Community Park on Pleasanton Avenue, provides a clear and unobstructed view of the hillsides and ridges on the project site and adjoining properties. Also, at approximately 1.5 miles from the project site, the park is relatively closer than the Bernal Avenue and Fairgrounds locations. The Bernal Community Park location was included for further consideration and evaluation of potential visual effects of project development upon members of the community and the general public using this venue.

Another location considered to have potential viewing opportunities of the site was Sunol Boulevard. Surveying the views of project area hillsides and ridges from Sunol Boulevard revealed that there were short glimpses of the uppermost ridgelines beyond the commercial center between Mission Drive and Junipero Street (Raley's). Generally, the views of the project site from Sunol Boulevard are screened

and/or obstructed by the local terrain, development along the street, street tree plantings, and mature tree landscaping on private properties adjoining Sunol Boulevard. Some limited views towards the project site are momentarily available motorists and pedestrians on Sunol Boulevard as they pass Junipero Street and Sycamore Road. Due to the relatively limited availability of mid-range views of the site from this roadway, Sunol Boulevard was eliminated from further review.

Neighborhood Views. The principal viewpoints for the project site consist primarily of locations near the subject property at the edges of existing residential neighborhoods, and generally from spots facing the site. Foreground viewing distances would range in distance from approximately 0.5 mile to the site's property line.

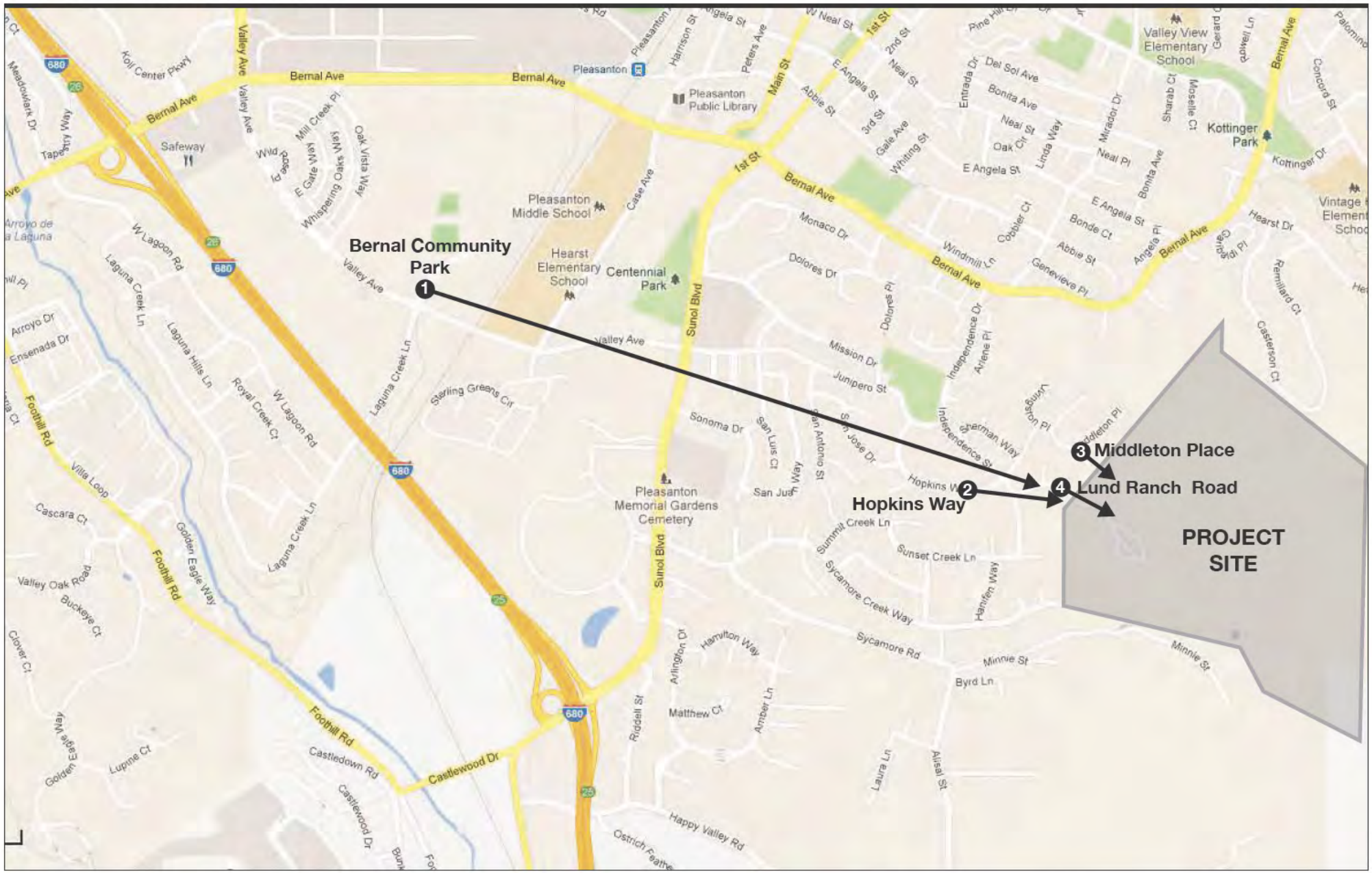
The principal public viewpoints within this radius would be confined to the residential neighborhoods adjoining the project site, particularly those neighborhoods to the west and north of the subject property. These include the following neighborhoods: Ventana Hills, Sycamore Heights, Bridle Creek, Mission Park, Bonde Ranch, and Kottinger Ranch. The principal views to the project's proposed development area, adjoining hillsides, and ridgelines are from the neighborhoods to the west of project site. Views to the property from Bonde Ranch and Kottinger Ranch neighborhoods encompass the northern and easternmost ridge tops of the site.

In order to characterize public views of the Lund Ranch property from the neighborhoods to the west of the site, potential viewing locations were surveyed from public streets, parks, and other sites suitable for public use. As a result, four additional viewing locations were selected for evaluating the project's potential visual effects on views from these locations. The selected public viewing platforms include: 1) Hopkkins Way approximately 250 ft. west of its intersection with Independence Drive; 2) the terminus of Lund Ranch Road; 3) the end of Livingston Place near the Middleton Place) in the Bonde Ranch neighborhood; and 4) the end of Sunset Creek Lane. Views from Mission Hills Park were also considered; however, park, street, and private landscaping on Independence Court restrict views of the project site from this public place and further review fron this location was eliminated. Potential public views of the site were also considered from the end of Sycamore Creek Way, but the hilly terrain and private landscape trees at the roadway terminus obstruct views the site.

Figure 4.2-2 presents representative key viewpoint locations**.** Existing views of the site from key viewpoint locations (Figures 4.2-3a through 4.2-7a) are presented below under Section 4.2-3, Potential Impacts and Mitigation Measures. As indicated, minor and limited parts of the Lund Ranch property can be viewed from Casterson Court, Grant Court, Smallwood Court in the Kottinger Ranch neighborhood. These views consist of ridges and northeast-facing slopes on the site's northeastern perimeter as well as the oak woodlands in this part of the site.

Key to Viewpoint Locations

Figure 4.2-2



Source: William Kanemoto & Associates (February 2013)

PROJECT SITE

The site consists of a west-facing drainage with steep, grassy slopes, and drainages dominated by stands of mature oak woodland. A few introduced tree types, including fan and date palms are also present in the narrow canyon bottom near the Lund residence and outbuildings. An allee of olive trees extends from this operational area along an unpaved road that extends toward Sunset Creek Lane. Existing structures are relatively inconspicuous because of their small scale and surrounding tree canopy. Visual quality within the sparsely developed site is high.

Principal views of the site occur primarily from surrounding residences and roadway stubs; distant views of the site's hillsides and ridges are mostly available to the western portion of the community and appear as a part of Pleasanton's extensive and undeveloped hillside open space areas on the southern edge of the city. Visual quality of views into the relatively scenic and undisturbed site, where they exist, are high, particularly from elevated viewpoints that afford panoramic views of open hillsides and oak canopy. Overall visual exposure, however, is low as just described.

4.2.2 CONFORMANCE WITH LOCAL PLANS, POLICIES, AND ORDINANCES

CITY OF PLEASANTON GENERAL PLAN

Pertinent policies of the Pleasanton General Plan 2005-2025 along with a discussion of the project's consistency with these policies are listed below.

General Plan Policies	Project Analysis
Land Use Element *Policy 21: Preserve scenic hillside and ridge views of the Pleasanton, Main, and Southeast Hills ridges (Measure QQ, Nov. 2008)*	The project as proposed would conform to this policy, due to the restriction of grading and project development to slopes under 25% and avoidance of development within 100 vertical feet of site ridgelines. The project design complies with the provisions of the Measures PP and QQ, and the proposed access road would not cross a slope over 25%.
Conservation and Open Space Element *Policy 6: Protect all large continuous areas of open space, as designated on the General Plan Map, from intrusion by urban development. (Measure QQ, Nov. 2008)* *Policy 7: Preserve and expand open-space opportunities, including open-space access to the public.* *Policy 8: Preserve as permanent open space all areas of outstanding scenic qualities or areas which provide extraordinary views of natural and human-made objects.* *Policy 9: Promote the development of a comprehensive system of pedestrian, bicycle, equestrian, and hiking trails throughout open-space*	Large contiguous areas of scenic, undeveloped hillside located east of the project site have been designated as Open Space under the General Plan. The project site represents a portion of the eastern limit of development as designated under the City General Plan. The project is thus consistent with the Plan's intent to preserve scenic Open Space to the extent that further allowable development of the natural hillside landscape in this portion of the City is very limited. As discussed previously views of the project site are relatively limited and, although of high visual quality, were not judged to be extraordinary. The project site represents one of the last remaining developable parcels in this area of the City designated

General Plan Policies	Project Analysis
lands, including arroyos and canals, in the Planning Area.	under the General Plan for residential development. The large remaining undeveloped hillside areas to the east of the site remain planned as Open Space under the 1996 General Plan. The project thus complies with this policy to the extent that the General Plan has allowed this parcel to be developed, but has largely restricted further residential development of the remaining natural hill areas to the east.
Community Character Element *Policy 19: Require the design of new residential development in hillside areas to complement the natural appearance of the open space.* *Policy 20: Preserve scenic hillside and ridge views, and other natural features of the hills.*	The proposed development would comply with this policy over the long term, by re-establishing an oak woodland character to much of the site as seen from off-site. Additionally, the proposed project design has been revised to address the requirements of Measures PP and QQ to ensure that the proposed residential development preserves views of the hillsides and ridges on the project site in compliance with these measures.
Subregional Planning Element *Policy 4: Enhance community identity through the protection of community separators, scenic hillsides, and ridgelines.*	These policies are enacted through the designation of remaining areas of undeveloped hillside east of the project site as open space.

4.2.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based on Appendix G of the CEQA Guidelines, an impact to aesthetics is considered significant if the proposed project would:

- Adversely affect any scenic vistas;
- Substantially damage scenic resources;
- Substantially degrade the existing visual character or quality of the site and its surroundings as defined by Measures PP and QQ; or
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

METHODOLOGY

Key viewing positions were identified to represent the important affected views and viewer groups. These are characterized in terms of overall anticipated viewer response: that is, anticipated susceptibility/sensitivity to change in light of viewer *sensitivity*, visual *exposure*, and existing *visual quality*. The higher the level of these factors, the higher the likelihood that a given level of visual change will result in adverse effects, and vice versa.

In the discussion of Impacts, visual features of the project are described and the resulting changes to landscape *quality* (vividness, intactness, unity) and *character* (visual contrast/dominance) are rated and considered together to arrive at an overall judgment of the degree (level of visual dominance or contrast) and type (adverse, beneficial) of *resource change*. This level of visual change is then considered in combination with the overall level of anticipated *viewer response* to arrive at the overall level of impact significance. In general, a dominant visual change to a high quality landscape in the presence of high numbers of viewers with high levels of sensitivity and visual exposure, is likely to result in a significant impact. Additionally, anticipated project effects are evaluated for conformance with applicable City plans, policies, and ordinances.

A field reconnaissance and photographic documentation were conducted of the affected study area. Visual impact assessments were based in part upon realistic visual simulations from key viewpoints in the viewshed. At four Key Viewpoints identified in the setting discussion, 3D computer simulations were prepared by William Kanemoto & Associates based upon site plans and typical, representative housing types of similar scale to those proposed, provided by the project applicant. Where potential adverse impacts were identified, recommended mitigation measures have been proposed, and the residual level of anticipated impact described.

KEY VIEWPOINTS

Impact 4.2-1: The project development would potentially affect hillside views from Bernal Community Park (Pleasanton Avenue), Bernal Avenue, and Valley Floor viewpoints. (Less than Significant)

As discussed under visual setting, these valley floor viewpoints are scattered and somewhat isolated due to view-obstructing effects of existing development in much of the area. Typical middle ground (1.5 miles) viewpoints in various locations on the valley floor are similar to those available from Bernal Community Park (Pleasanton Avenue) and on or south of Bernal Avenue. From these viewpoints the site occupies an exposed undeveloped slope of the town's southeast foothills.

Figure 4.2-3a is the view of the site as seen from Bernal Community Park on Pleasanton Avenue. This figure represents current views of the project site from the park, as well as from Bernal Avenue.

The residential development proposed for the Lund Ranch property would require extensive removal of vegetation and grading on the site's lower elevations. Grading would extend As depicted in the **Figure 4.2-3b**, grading for the proposed project would require changes in slopes that are under 25% to accommodate the construction of building pads for the new residential development. The proposed grading for the site would extend to an elevation of 478 ft. MSL for the single-family home lots and approximately 560 ft. MSL for the two estate lots. The site's hillside area designated for grading is indicated in Figure 4.2-3b and shown to occur immediately above the rooflines of the Hearst Elementary School buildings and the slightly higher rooflines of the residential development immediately east of the school site on Case Avenue. The rooflines for the proposed single-family homes would appear slightly

View of Project Site from Pleasanton Avenue

Figure 4.2-3a

Source: William Kanemoto & Associates (February 2013)

View of Proposed Project from Pleasanton Avenue

Figure 4.2-3b

Source: William Kanemoto & Associates (February 2013)

higher than the existing rooflines in the middle ground area of Case Avenue. As can be seen in the figure, the majority of the viewable hillside area would remain unaltered and none of the ridgelines and respective views would be affected by the residential uses proposed for the lower site elevations.

The proposed project includes extensive landscaping plans as well as required tree replacement plantings that would be incorporated into revegetation efforts for the perimeters of residential lots and on the hillsides above these lots. As a result, the potential effects of project development on the lower elevations of the project site would have a less than significant impact on views of the project site from middle ground locations in the city and valley floor.

Mitigation Measure 4.2-1: *None required.*

Impact 4.2-2: The project development would potentially affect hillside and ridgeline views from Hopkins Way viewpoints. (Less than Significant)

The second viewpoint location selected to evaluate the project's potential visual effects on the local community is situated on Hopkins Way, approximately 250 feet west of its intersection with Independence Drive. This viewpoint represents a prominent public view in the adjacent residential areas west of the project site (Ventana Hills neighborhood) and is also somewhat representative of other higher elevation public views at foreground distances in the vicinity.

Residents and eastbound motorists using the eastern segment of Hopkins Way have a clear view of the project site's upper hillside slopes and ridgelines, particularly those in the northern half of the property. In order to determine the potential visual effects of the proposed project, possible viewpoints along Hopkins Way were considered as these relate to the development design. Views to the site's proposed development area from the street were limited. Figure 4.2-4a presents a typical view toward the site. The view of the project's proposed residential development is screened by the rooftops of homes along the south side of Hopkins Way and associated tree landscaping on parcels located along Hopkins Way, Independence Drive, and Lund Ranch Road.

Figure 4.2-4a presents views of the project site's proposed residential development area from Hopkins Way. The view of the site consists of limited views of its western hillside and ridgeline. These views are filtered by frontyard landscaping and rooflines of the homes on the south side of Hopkins Way. As can be seen, the level of screening for site views depends upon the seasons and amount of foliage on private landscape trees.

Figure 4.2-4b illustrates views of the project site after project development. In order to demonstrate the level of development site screening that is anticipated for the proposed project, grey wire models of the proposed project residences are superimposed upon the existing view of the site. As can be seen, the residences proposed for Lund Ranch would be situated behind the roofline and intervening landscape trees, thereby precluding views of the proposed residential development from Hopkins Way.

View of Project Site from Hopkins Way

Figure 4.2-4a

Source: William Kanemoto & Associates (February 2013)

View of Proposed Project from Hopkins Way

Figure 4.2-4b

Source: William Kanemoto & Associates (February 2013)

As a result, the potential effects of project development on the lower elevations of the project site would have a less than significant impact on views of the project site from Hopkins Way and the Ventana Hills neighborhood.

Mitigation Measure 4.2-2: *None required.*

Impact 4.2-3: The project development would potentially affect hillside and ridgeline views from Lund Ranch Road. (Impacts to Views, but at Less than Significant Levels)

The extension of existing Lund Ranch Road would provide a single access point to the proposed residential development. Public Lund Ranch Road currently terminates at the project site property line and access to the site continues through a gate and along an unpaved ranch road. The ranch road extends approximately 0.25 mile southeast on the site to the collection of ranch buildings on the property. The view of the project site from Lund Ranch Road is presented in **Figure 4.2-5a**. As shown in the figure, the view from this location encompasses the site's grassland valley floor in the foreground with ranch outbuildings and oak trees in the mid-range view. The background distant view includes the site's southern ridge. This view is predominantly rural and agricultural in character and conveys a sense of open space, albeit not completely undeveloped.

The proposed project would include extensive removal of vegetation and grading for the extension of Lund Ranch Road, the construction of three cul-de-sacs and residential building pads, and the development of 48 single-family homes. Two estate lots would be established and undergo a separate design review and building approval process.

Figure 4.2-5b presents a photosimulation view of the project homes as would be expected from the Lund Ranch Road entrance to the site. The open pasture area and outbuildings would be replaced with new single-family homes, changing the character of this part of the project site from agricultural to suburban.

The proposed residential uses would extend the adjoining residential neighborhoods onto the lower elevations of the project site. The new view from Lund Ranch Road would be a substantial change from the existing view, but would be consistent with the type of views dominating neighborhoods to the west and north of the project site.

Given the limited degree of existing view exposure and view orientation into the site, and the very small number of viewers so affected, this impact is considered to be substantial, but less than significant.

Mitigation Measure 4.2-3: *None required.*

Impact 4.2-4: The project could potentially affect nearby views from viewpoints in the vicinity of Livingston Way, Middleton Place and Livingston Place. (Impacts to Views, but at Less than Significant Levels)

View of Project Site from Lund Ranch Road

Figure 4.2-5a

Source: William Kanemoto & Associates (February 2013)

View of Proposed Project from Lund Ranch Road

Figure 4.2-5b

Source: William Kanemoto & Associates (February 2013)

The project plans indicate that a cul-de-sac ("Court A") would branch off northward from the Lund Ranch Road extension near the entrance to the project site. Court A would parallel the site's northwest property line and end near the current terminus of Livingston Place on the Bonde Ranch subdivision. Past plans for the Bonde Ranch once included a connection of Livingston Place to the internal circulation system to be constructed on Lund Ranch. However, the present site plan for the Lund Ranch II PUD does not provide for such connection. As a result of the current plans for a cul-de-sac at this location, the rear yard of Lot 4 would back up to the end of Livingston Place.

Figure 4.2-6a presents the existing view from the end of Livingston Place. It should be noted that this 230-foot roadway stub receives negligible traffic and, consequently, would not be a major viewpoint location. Views to the residential lots on Court A from both Livingston Way and Livingston Place are blocked by a screen wall of mature eucalyptus trees that separate these two roadways from the Ventana Hills neighborhood. Project plans include the removal of three eucalyptus trees on the project site near the end of Livingston Place, including the two trees shown in Figure 4.2-6a.

The development of Lots 1 through 5 along the northwestern boundary of the project site would substantially alter the view from Livingston Place. **Figure 4.2-6b** presents the view from the end of Livingston Place after project development. The extended view overlooking the project site would be replaced with a close view of the residence planned for Lot 4 as well as adjoining residences. This would be considered a substantial change to the existing view from this location.

It should be noted that the development of project's Lots 4 and 5 would preclude the extension of Livingston Place onto the Lund Ranch site. Traffic using Livingston Way and Middleton Place is limited Figure 4.2-5b View of Proposed Project from Lund Ranch Road to residents and their visitors. Consequently, the Livingston Place location would be expected to have a minimal number of visitors to use this location for public viewing purposes. As a result, while the change in views at this location would be substantial, the restriction in opportunity for such views would be a less than significant effect of the project.

Mitigation Measure 4.2-4: *None required.*

REFERENCES – AESTHETICS

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View of Project Site from Livingston Way

Figure 4.2-6a

Lund Ranch II

Source: William Kanemoto & Associates (February 2013)

View of Proposed Project from Livingston Way

Figure 4.2-6b

Lund Ranch II

Source: William Kanemoto & Associates (February 2013)

4.3 BIOLOGICAL RESOURCES

This section is based on biological resources studies prepared for the project site as part of the project planning process. Biological surveys were conducted on the project site by Harding Lawson Associates in July 1990 (Harding Lawson, 1990), Zander Associates in 1998, May and June 1999 (Zander Associates, 1999), with follow-up surveys in 2001; and Live Oak Associates (LOA) in May and July 2000 (LOA, 2000), November and December 2001, January to August 2002 (LOA, 2002a and 2002b), September 2003 (LOA, 2003), and May 2007 (LOA, 2007). These surveys identified plant communities, evaluated botanical and wildlife resources, and included surveys for biotic habitats that could be suitable for special-status plants and animals. HortScience surveyed trees on the project site in 1999, August 2002, and September 2011 (HortScience, 2011). An arborist peer review was completed by Walter Levison in January 2012 (WLCA, 2012). Copies of these studies on file at the Pleasanton Planning Division of the Community Development Department at 200 Old Bernal Avenue in Pleasanton.

The biological resources studies and tree survey reports were peer reviewed by Mosaic Associates, and a reconnaissance-level site visit was conducted in February 2012. The following discussion summarizes the information presented in the biological studies, tree surveys, and the review performed by Mosaic Associates (Mosaic Associates, 2012).

4.3.1 ENVIRONMENTAL SETTING

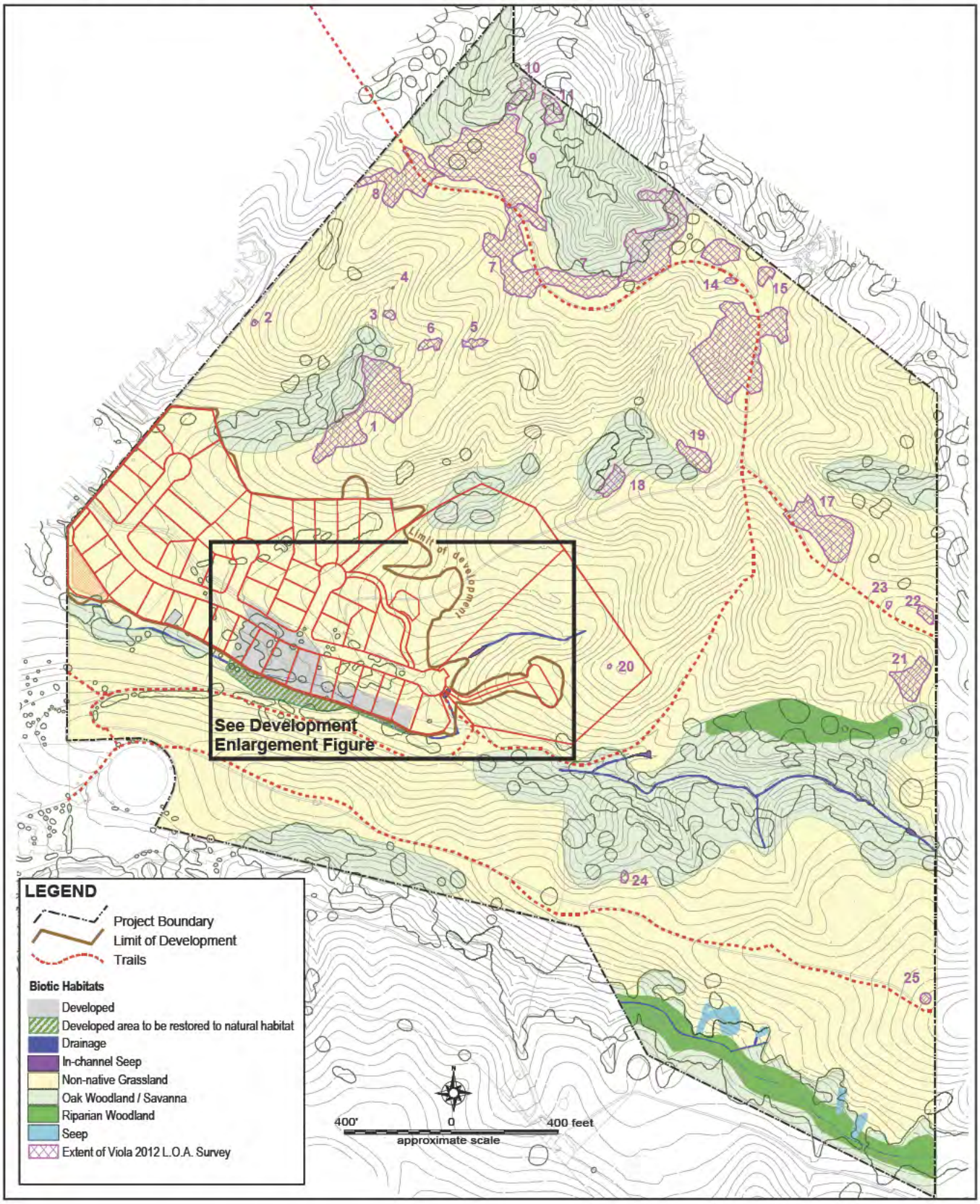
VEGETATION

Five biotic habitats were identified on the study area. These natural terrestrial communities are identified as non-native annual grassland, blue oak woodland/savanna, riparian woodland, developed and seasonal drainages/seasonal wetlands. These habitats have been mapped and are indicated in **Figures 4.3-1** and **4.3-1a**, and summary information on the acreages of each biotic habitat is presented in **Table 4.3-1**.

TABLE 4.3-1

AREA OF ON-SITE BIOTIC HABITATS

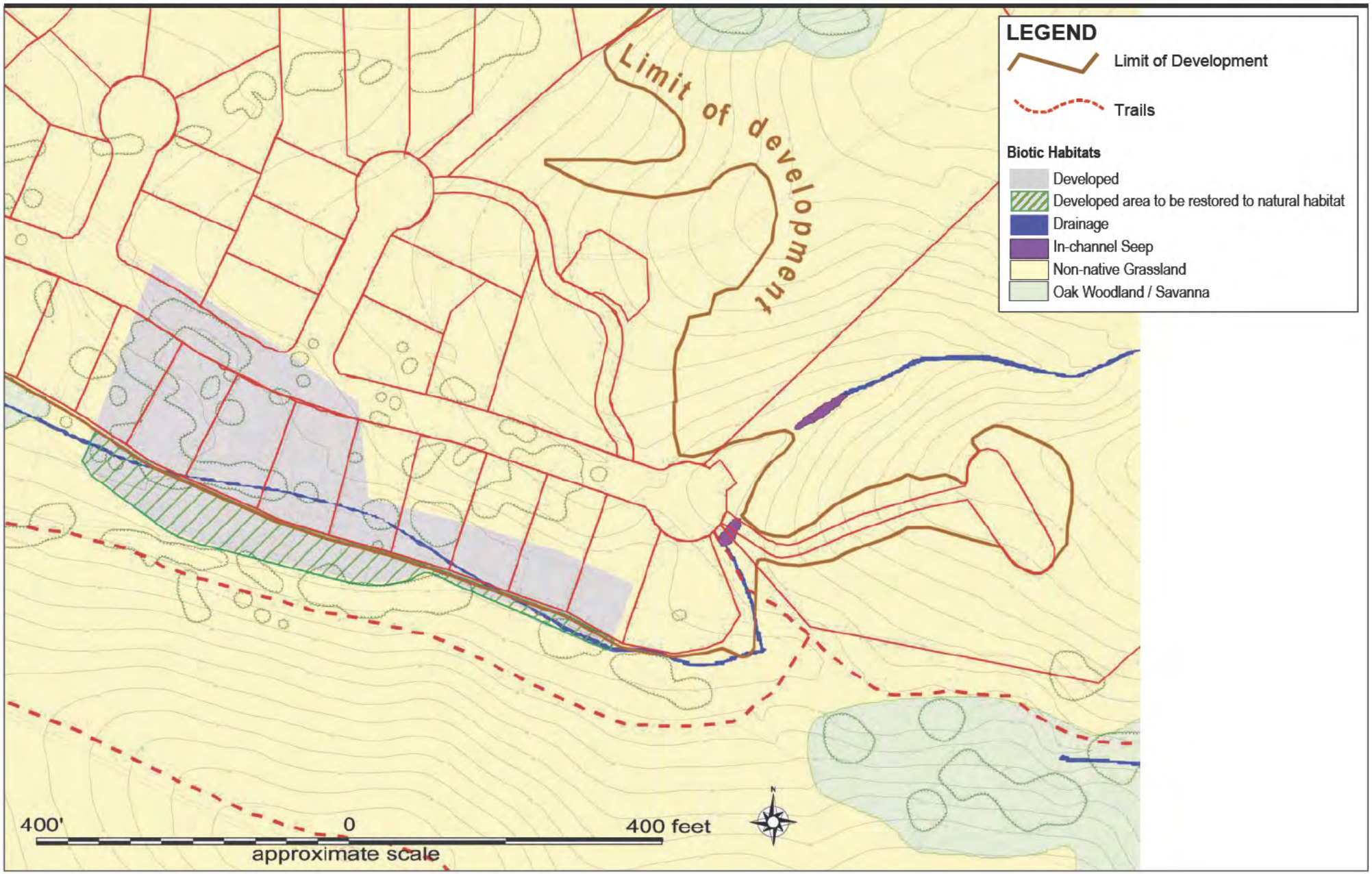
Habitat Type	Acres	Percent of Total
Non-native Grassland (rangeland)	149.75	76.9
Blue Oak Woodland/Savanna	37.18	19.1
Riparian Woodland	4.15	2.1
Developed	2.74	1.4
Seasonal Wetlands/Drainage Channels		
In-channel wetlands	0.096	
Seeps	0.361	
Drainage Channels	0.580	
Total wetlands/drainage channels	1.037	0.5
TOTAL	**194.8**	**100.0**



Source: Live Oak Associates, Inc. (February 2013)

Biotic Habitats Impacts - Development Area

Figure 4.3-1a



Source: Live Oak Associates, Inc. (February 2013)

Non-native Grassland. The most extensive biotic habitat of the study area is non-native grassland (77% of the site), mainly comprised of grasses and forbs of European origin. The grasslands are heavily grazed as evidenced by erosion on steeper slopes and resultant terracing. The dominant grasses observed here included slender wild oats (*Avena barbata*), barnyard barley (*Hordeum murinum* ssp. *leporinum*), ripgut brome (*Bromus diandrus*), and soft chess (*Bromus hordeaceous*). Common non-native forbs occurring here included yellow star thistle (*Centauria solstitialis*), vinegar weed (*Trichostema lanceolata*), clover (*Trifolium* sp.), and sheep sorrel (*Rumex acetosella*). While non-native annual grasses are the dominant component, native grasses such as purple needlegrass (*Nassella pulchra*), California brome (*Bromus carinatus*), and California melic grass (*Melica californica*) were widely dispersed within the grasslands of the study area with the greatest abundance occurring on more mesic slopes at the edges of the woodland habitats. Native perennial and annual forbs are also an important component of this habitat and include California poppy (*Eschscholzia californica*), checkerbloom (*Sidalcea malviflora*), yarrow (*Achillea millefolium*), brodiaea (*Brodiaea* spp.), soap plant (*Chlorogalum pomeridianum*), Great Valley gumplant (*Grindelia camporum*), and blue-eyed grass (*Sisyrinchium bellum*).

Blue Oak Woodland/Savanna. Woodlands dominated by blue oak (*Quercus douglasii*) occur as patches on north-facing slopes and on the slopes of the larger drainage swales of the study area. Interspersed within the woodland habitats, especially in more mesic areas, are valley oak (*Quercus lobata*), poison oak (*Toxicodendron diversilobum*), and buckeye (*Aesculus californica*). Canopy closure in the woodland can be characterized as relatively open, with average canopy densities in the range of 15 to 20 percent. A shrub layer is generally absent from these habitats and the herbaceous layer is undifferentiated from the adjoining non-native grasslands, containing the same dominant species found in those habitats.

Riparian Woodland. Riparian woodland occurs along the perennial drainage in the southwest corner of the site, and along the upper reach of a seasonal drainage near the eastern property line (Figure 4.3-1). This habitat supports large trees such as western sycamore (*Platanus racemosa*), valley oak, California bay (*Umbellularia californica*), red willow (*Salix laevigata*) and buckeye with a relatively dense, closed canopy. The dominant species in the shrub layer included poison oak, California blackberry (*Rubus ursinus*), toyon (*Heteromeles arbutifolia*), California coffeeberry (*Rhamnus californica*), mulefat (*Baccharis salicifolia*) and snowberry (*Symphoricarpos rivularis*) while species abundant in the herbaceous layer included mugwort (*Artemisia douglasiana*), bee plant (*Scrophularia californica*), stinging nettle (*Urtica dioica*), and prickle-seed buttercup (*Ranunculus muricatus*).

Seasonal Drainage/Seasonal Wetland. The seasonal drainage/wetland habitats occur within the study area in the form of in-channel wetlands, wetland seeps and seasonal drainage channels. This section of the report summarizes the wetland delineation that was verified by the United States Amy Corps of Engineers (USACE) on July 26, 2002, and again on June 4, 2007 (USACE, 2007). Drainages, seeps and in-channel wetlands subject to USACE jurisdiction are described in Table 4.3-1 and Figure 4.3-1. With the expiration of the USACE jurisdictional determination on November 26, 2012, a new determination will be needed. Since site conditions are essentially unchanged, the new determination is expected to be similar or identical to the one that expired. All other areas of the site are considered non-jurisdictional.

Two primary drainage areas exist within the study area: Drainage Area A (the center of the site) and Drainage Area B (southeastern boundary of the site). Site drainage from the remainder of the site occurs within swales (no defined bed and bank and thus, not considered jurisdictional by the Corps). None of the drainage channels or swales were flowing during the August 2002 and 2007 surveys except for Drainage Area B (a perennial stream) on the southern edge of the site. Vegetation in the seasonal drainages was generally undifferentiated from the habitats that they flowed through, with little or no hydrophytic vegetation associated with them. The exceptions to this were three in-channel seeps that were associated with tributaries of the Drainage Area A (Figure 4.3-1). Much of Drainage Area A would likely be considered ephemeral in nature (sustaining flows only during and for a short duration after a rainfall event), while Drainage Area B is considered perennial. Although the in-channel seeps in Drainage Area A were dry at the time of the August 2002 and 2007 surveys, they had been saturated for a sufficient duration to support hydrophytic plant species. These species along with their U.S. Fish and Wildlife Wetland Indicator Status included rushes (*Juncus* spp.) (FACW-OBL), nutsedge (*Cyperus eragrostis*) (FACW), rabbit's foot grass (*Polypogon monspeliensis*) (FACW) and narrowleaf cattail (*Typha angustifolia*) (OBL).

Riparian vegetation grows along Drainage Area B in the southeastern portion of the study area. This drainage has a deeply incised channel, ranging from 4 to 10 feet in depth and from 3 to 5 feet in width. At the time of the August 2002 and 2007 surveys, this drainage was gently flowing at a water depth of 1 to 2 inches with watercress (*Rorippa nasturtium-aquatica*) forming a dense mat over the surface in many areas. Four perennial seeps are associated with this drainage, occurring along its steep northern slopes. These seeps are heavily trampled by cattle, as evidenced by deep hoof prints in soils that were still saturated with water at the time of the August survey. Hydrophytic plant species observed within these seeps along with their U.S. Fish and Wildlife Wetland Indicator Status include needle-spike rush (*Eleocharis acicularis* var. *acicularis*)(OBL), iris-leaved rush (*Juncus xiphioides*)(OBL), watercress (OBL), rabbit's foot grass (FACW), Bermuda grass (*Cynodon dactylon*)(FAC), ryegrass (*Lolium multiflorum*)(FAC), Mediterranean barley (*Hordeum marinum*)(FAC), and bird's-foot trefoil (*Lotus corniculatus*)(FAC).

Developed/Cultivated. Development on the western half of the study area included an unoccupied residence and associated stock pens, barn, outbuildings and driveway. In addition, a water tank and paved road leading to it occur near the southern boundary of the property. Vegetation in proximity to these developed areas included a variety of landscape trees such as pines (*Pinus* sp.), black locust (*Robinia pseudoacacia*) and palm trees (*Washingtonia filifera* and *Phoenix canariensis*), as well as trees cultivated for their fruit such as walnut (*Juglans* sp.) and olive (*Olea europaea*). Species in the understory were generally ruderal, weedy species such as Italian thistle (*Carduus pycnocephalus*) and bindweed (*Convolvolus arvensis*), as well as the same non-native grasses and forbs that occur in the adjacent grassland habitats.

WILDLIFE

Non-native Grassland. Non-native grassland provides important habitat to many terrestrial vertebrates. As many as 25 species of reptiles and amphibians, 100 species of birds and 50 species of mammals are known to use grassland habitats of central California (Mayer et al., 1988). The grasslands of the study area provide suitable habitat for many of these species. Some of these species are grassland residents but a good many others use a variety of other habitats as well. Some of these species are migrants that use the grasslands of the study area for only a portion of each year.

Isolated rock outcroppings and debris piles within the grassland provide habitat for various reptiles such as western fence lizard (*Sceloporus occidentalis*), western rattlesnake (*Crotolus viridis*), and gopher snake (*Pituophis melanoleucus*).

Resident and migratory birds occur in this habitat. Raptors observed foraging within the grassland habitat included American kestrel (*Falco sparverius*), turkey vulture (*Cathartes aura*), and red-tailed hawk (*Buteo jamaicensis*). Other bird species observed here during the surveys include western kingbird (*Tyrannus verticalis*), western meadowlark (*Sturnella neglecta*), western bluebird (*Sialia mexicana*), lark sparrow (*Chondestes grammacus*), and mourning dove (*Zenaida macroura*). Other species known to occur in the grasslands of the study area either as residents or migrants include California horned lark (*Eremophila alpestris*), American pipits (*Anthus rubescens*), and savannah sparrow (*Passerculus sandwichensis*).

Small mammals are common to grasslands of the study area. California ground squirrels were observed in the grasslands near the developed western portion. The California vole (*Microtus californicus*), western harvest mouse (*Reithrodontomys megalotis*), Botta's pocket gopher (*Thomonys bottae*), black-tailed hare (*Lepus californicus*) and ornate shrew (*Sorex ornatus*) may use this habitat. These small mammals attract a variety of predators, including various snakes and raptors as previously discussed, but also mammals such as coyote (*Canis latrans*), red fox (*Vulpes vulpes*), bobcat (*Lynx rufus*) and cougar (*Puma concolor*).

Blue Oak Woodland/Savanna. Oak woodland habitats provide important foraging and nesting habitat for many species of birds. Bird species observed in this habitat during the surveys included acorn woodpecker *(Melanerpes formicivorus*), western scrub jay (*Aphelocoma californica*), wild turkey (*Meleagris gallopavo*), northern mockingbird (*Mimus polyglottos*), oak titmouse (*Baeolophus inornatus*), white-breasted nuthatch (*Sitta carolinensis*), yellow-rumped warbler (*Dendroica coronata*), northern flicker (*Colaptes auratus*), dark-eyed junco (*Junco hyemalis*), lesser goldfinch (*Carduelis psaltria*), and California towhee (*Pipilo crissalis*). While not observed during the surveys, other bird species which are expected to occur here either as year-round residents or as migrants include Nuttall's woodpecker (*Picoides nuttallii*) and downy woodpecker (*Picoides pubescens*).

Black-tailed deer (*Odocoileus hemionus columbianus*) were found in this habitat during the surveys. Other mammal species which were not observed during the surveys but would be expected to occur here include the Western gray squirrel (*Sciurus griseus*) and deer mouse (*Peromyscus maniculatus*).

Riparian Woodland. The combination of the streamside vegetation and a stream with a perennial flow provides habitat for several amphibian species including the Pacific treefrog (*Pseudacris regilla*), slender salamander (*Batrachoceps pacificus*), ensatina (*Ensatina exchscholtzi*) and arboreal salamander (*Aneides lugubris*). Reptiles such as western fence lizards were observed here and alligator lizards (*Elgaria multicarinata*) are known to occur in this habitat as well.

Birds observed using this habitat during the surveys included California quail (*Callipepla californica*), chestnut-backed chickadee (*Poecile rufescens*), black phoebe (*Sayornis nigricans*), Anna's hummingbird (*Calypte anna*), bushtit (*Psaltriparus minimus*), Nuttall's woodpecker, and western scrub jay. In addition to the bird species observed, riparian-associated bird species that may nest in this habitat include Pacific slope flycatcher (*Empidonax difficilis*), song sparrow (*Melospiza melodia*), downy woodpecker, California towhee, and Hutton's vireo (*Vireo huttoni*).

A diverse assemblage of small mammals including the California mouse (*Peromyscus californicus*), deer mouse, brush rabbit (*Sylvilagus bachmani*) and Botta's pocket gopher are also expected to occur in this habitat. Mammalian predators such as the raccoon (*Prycon lotor*), ringtail (*Bassariscus astutus*), gray fox (*Urocyon cinereoargenteus*), bobcat and cougar are known to hunt for prey within riparian areas.

Seasonal Drainage/Seasonal Wetland. The seasonal in-channel seeps and perennial seeps provide habitat for aquatic invertebrates and amphibians as well as an important year-round water (the perennial seeps) source for birds, mammals and reptiles. The seeps (both seasonal and perennial) of the study area may provide breeding habitat for several species of amphibian including the Pacific tree frog (observed in January 2002) and western toad (*Bufo boreas*), however, heavy cattle trampling reduces the quality of this habitat for these species.

While neither the seeps nor the two main drainage channel areas support suitable breeding habitat for the California red-legged frog (*Rana draytonii*), suitable foraging habitat for the red-legged frog is present along the drainages and upland habitats in the eastern portion of the study area. No red-legged frogs were detected during surveys conducted of the study area, the Spotorno property to the south of the study area, or on property to the south and west of the Spotorno property in 1999 and 2002 (Live Oak Associates, 2002b). Surveys were also conducted in the two ponds on the Oak Grove property to the east, and an off-site detention basin adjacent to the Oak Grove property (Mundie & Associates, 2006). One adult red-legged frog was detected at Pond 2 on the Oak Grove property in October 2004. Pond 2 is located approximately 1,900 feet east of the Lund Ranch property (**Figure 4.3-2**).

Source: Mosaic Associates (February 2013)

Breeding habitat for the California tiger salamander (*Ambystoma californiense*) is no longer present within the study area. The former stock pond immediately north of Wetland #5 (see Figure 4.3-1) supported breeding habitat for the California tiger salamander (CTS) in the past, but the dam for this feature failed around the year 2000. Mark Jennings, Ph.D. detected CTS during surveys in March 2002 in small pools of water that had formed in the bottom of the former stock pond (Live Oak Associates, 2002a and b). The water depth was too shallow in these small pools to support successful breeding resulting in fully developed juveniles. CTS breeding was also documented in 2005 in three off-site ponds on and adjacent to the Oak Grove property to the east of the study area (Mundie & Associates, 2006). While no breeding habitat for CTS currently exists on-site, some of the upland habitat adjacent to this former stock pond may continue to support aestivation habitat for remnants of the population that had bred in the former stock pond in the past. Aestivation habitat is also present in the eastern portion of the study area, where CTS from the ponds to the east may aestivate.

Developed/Cultivated. The area of developed/cultivated habitat would support common animal species including raccoon, skunk (*Mephitis mephitis*), opossum (*Didelphis virginiana*), feral cats (*Felis cattus*), and various bird species typical of low-density residential/rangeland areas.

SPECIAL-STATUS PLANT AND ANIMAL SPECIES

A number of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. State and federal laws have provided the California Department of Fish and Wildlife (CDFW, California Department of Fish and Game until renamed on January 1, 2013) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as "candidates" for such listing. Still others have been designated as "species of special concern" by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened or endangered (CNPS, 2010). Collectively, these plants and animals are referred to as "special-status species."

Special-status Plant Species. A number of special-status plants and animals occur in the vicinity of the study area. These species, and their potential to occur in the study area, are listed in Table 1 of Appendix B. Sources of information for this table included *California Natural Diversity Data Base* (CNDDB)(CDFG, 2012), an online list of endangered and threatened wildlife and plants maintained by the USFWS (USFWS, 2012), and *The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2010). A CNDDB query for records of rare plants from nine United States Geological Survey (USGS) 7.5 minute quadrangles surrounding the study area was conducted in order to determine which rare species are known to occur in proximity to the study area.

The quadrangles queried include: Livermore, La Costa Valley, Altamont, Mendenhall Springs, Diablo, Tassajara, Byron Hot Springs, Dublin and Niles.

Botanical surveys of the Lund Ranch property have been conducted on several occasions, including surveys by Zander Associates in May and June 1999 and Live Oak Associates in 2002, 2007 and 2012. While the earlier surveys may not have been sufficiently extensive in the woodland habitats outside the development zone to ascertain presence or absence of special-status plants, the area that would be impacted by the proposed project and the trails have been thoroughly surveyed in a manner consistent with CDFW protocol (CDFG, 2009). None of the 49 special-status plants that are known from the region (Table 1 of Appendix B) have been detected on-site.

Special-status Animal Species. Most of the special-status animal species listed in Table 2 of Appendix B are unlikely to occur on-site, while others may occur rarely. Three special-status species that had the potential to occur on-site required additional survey effort to conduct a more informed impact assessment. Those species include the California tiger salamander (listed as threatened under the Federal Endangered Species Act and California Endangered Species Act), California red-legged frog (federally threatened and California species of special concern) and Callippe silverspot butterfly (*Speyeria callippe callipe*, federally endangered). Extensive surveys were conducted to establish the presence or absence on the site for California tiger salamander and red-legged frog. Surveys of the butterfly's larval host plant Johnny jump-up (*Viola pedunculata*) were conducted, as well as a review of environmental documents for other projects in the region, and literature on this species. Below are detailed discussions that include an analysis of the legal status, ecology, and the suitability of the site to support these species.

California Red-Legged Frog *(Rana aurora draytoni).* Federal listing status: threatened; state listing status: none. California Department of Fish and Game Species of Special Concern.

Legal Status. On May 23, 1996 the California red-legged frog (CRF) was listed as Threatened by the U.S. Fish and Wildlife Service under the authority of the Federal Endangered Species Act (USFWS, 1996). The frog was listed because it had been extirpated from 70 percent of its historic range and remaining populations are currently threatened by a wide variety of human impacts.

In 2002 the USFWS completed a *Recovery Plan for the California Red-legged Frog (Rana draytonii)* (USFWS, 2002). This plan highlights 35 "Core" areas that are the focus of recovery efforts, nested within eight recovery units established throughout the existing range of the frog. The primary objective of the recovery plan is to improve the status of the species sufficiently to warrant delisting. The project site falls within Core Area 6 of Recovery Unit 4 identified in the Recovery Plan. Unlike designated critical habitat (see below), the Endangered Species Act does not legally mandate protection of core areas identified in a recovery plan. Instead, the recovery plan seeks voluntary implementation of actions described in the plan. In general, the strategy for recovery of the CRF involves:

1. Protecting existing populations by reducing threats;

2. Restoring and creating habitat that will be protected and managed in perpetuity;
3. Surveying and monitoring populations and conducting research on the biology of and threats to the subspecies; and
4. Reestablishing populations of the subspecies within its historic range.

Following the resolution of a legal challenge to the designation of critical habitat adopted in a final rule on March 13, 2001, the USFWS released a revised designation of critical habitat for the red-legged frog on March 17, 2010 (USFWS 2010). This Final Rule designated 1,636,609 acres as critical habitat. The project site falls outside any area designated as critical habitat.

Ecology. California red-legged frogs have been observed in a number of aquatic and terrestrial habitats throughout their historic range. Larvae, juveniles, and adult frogs have been collected from natural lagoons, dune ponds, pools in or next to streams, streams, marshlands, sag ponds, and springs, as well as human-created stockponds, secondary and tertiary sewage treatment ponds, wells, canals, golf course ponds, irrigation ponds, sand and gravel pits (containing water), and large reservoirs (Jennings 1988). The key to the presence of frogs in these habitats is the presence of perennial (or near perennial) water and the general lack of introduced aquatic predators such as largemouth bass (*Micropterus salmoides*), green sunfish (*Lepomis cyanellus*), and bluegill (*L. macrochirus*), crayfish (*Pacifastacus leniusculus* and *Procambarus clarkii*), and bullfrogs (*Rana catesbeiana*).

Radio tracking studies conducted in lagoons and the lower portions of streams along the Central Coast of California show that CRF will move within the riparian zone from well-vegetated areas to pools of water to hydrate during periods of time when many of the Central Coast streams are dry except for isolated pools (Rathbun et al. 1993). During wet periods (especially in the winter and early spring months), CRF can move long distances (e.g., 1 mile) between aquatic habitats, often over areas that are considered to be unsuitable for frogs (e.g., roads, open fields, croplands, etc.). Such activities can result in frogs ending up in isolated aquatic habitats well away from the nearest known frog populations.

Suitability of Site to Support Species. In order to determine the potential for CRF presence on the project site, surveys consistent with the then current protocol (USFWS 1997) were conducted by Drs. Mark Jennings and Sue Townsend in May and July of 2000, and again by Dr. Jennings in June 2002. While that protocol was subsequently replaced with a new protocol adopted in August 2005 (USFWS, 2005), site conditions have not changed, and given the comprehensive nature of those surveys, the results of the 2000 and 2002 surveys have been used in this analysis. A detailed discussion of the survey procedures and methods is included in the biological evaluation prepared by Live Oak Associates (October, 2002b). No CRF were found on the Lund Ranch property, ponds on the Sportorno Ranch to the south, or in ponds to the south and west of the Spotorno Ranch (Op.cit.). **Table 4.3-2** contains records of CRF and California tiger salamander (CTS) from the area surrounding the project site.

TABLE 4.3-2

CALIFORNIA RED-LEGGED FROG (CRF) AND CALIFORNIA TIGER SALAMANDER (CTS) RECORDS WITHIN 3.1 MILES OF LUND RANCH BOUNDARY

Species	CNDDB Record #	Distance to Lund Ranch	Occurrence Date
CTS	109	2.44	1994
CTS	140	2.64	1993
CTS	207	2.66	1991
CTS	455	0.62	1999
CTS	469	1.29	1996
CTS	470	1.82	1996
CTS	574	1.03	2000
CTS	581	3.07	1988
CTS	640	1.62	1992
CTS	709	2.16	2006
CTS	711	On-Site	2002
CTS	815	2.86	2003
CTS	816	2.64	2003
CTS	817	2.80	1989
CTS	862	0.50	2005
CTS	863	0.34	2005
CRF	449	2.70	1996
CRF	587	2.40	1990
CRF	770	2.20	2008

SOURCE: CDFG (2012a)

In association with the proposed Oak Grove property to the east, surveys for CRF were also conducted in the two ponds on the Oak Grove property to the east, and an off-site detention basin adjacent to the Oak Grove property (Mundie & Associates, 2006). One adult CRF was detected at Oak Grove Pond 2 in October 2004. Pond 2 is located approximately 1,900 feet east of the Lund Ranch property and the nearest trail construction proposed on the Lund Ranch property, and approximately 3,000 feet east of the nearest proposed lot (Lot 32) on the Lund Ranch property.

While Drainage B in the southeast corner of the property is perennial, pools of sufficient depth and structure to support breeding for this species is absent. Suitable aquatic habitat is also absent elsewhere on the Lund Ranch property. Foraging habitat is present, although the distance from the nearest occurrence to the east and absence of suitable aquatic habitat on-site makes it unlikely that CRF would occur on-site.

California Tiger Salamander (*Ambystoma californiense*). Federal listing status: Threatened; State listing status: Threatened.

Legal Status. The California tiger salamander (CTS) was listed as threatened throughout its range effective on September 3, 2004 by the USFWS under the authority of the Federal Endangered Species Act (USFWS, 2004). On August 19, 2005, the downlisting of the Sonoma and Santa Barbara populations from endangered to threatened was vacated. Therefore, the Sonoma and Santa Barbara populations are again listed as endangered. The primary cause of the decline of CTS populations is the loss and fragmentation of habitat from human activities and the encroachment of nonnative predators.

The CDFW listed the California tiger salamander throughout the entire range as threatened, effective on August 19, 2010. The USFWS designated 199,109 acres of critical habitat in 19 counties for the central population of this species on August 23, 2005 (USFWS, 2005). Critical habitat in Sonoma County was revised in a Final Rule published in the Federal Register on August 31, 2011 (USFWS, 2011). The project site falls outside any area designated as critical habitat. A recovery plan for the central valley population has not been prepared.

Ecology. California tiger salamander typically breed in temporarily ponded environments that contain water for a minimum of three to four months (e.g., vernal pools, ephemeral pools, or human-made ponds) surrounded by uplands that support small mammal burrows used by CTS as aestivation (hibernation) habitat. Both breeding and aestivation habitats must be present for CTS to become established, and to persist over multiple generations. California tiger salamander will utilize permanent ponds if aquatic vertebrate predators are not present. Pools and ponds provide breeding and larval habitat, while small mammal burrows, such as ground squirrel and Botta's pocket gopher burrows, in the upland habitats support juvenile and adult CTS during the dry season.

Suitability of Site to Support Species. Two adult male CTS and eggs were observed within the study area during surveys conducted by Dr. Mark Jennings in January 2002 at the site of the former stock pond (Live Oak Associates 2002a). These individuals were observed attempting to breed in small, shallow (two to three inches deep) pools that had formed in the bottom of the former stock pond just north of the corral (above Wetland #5). The dam of the pond failed around 2000 (Live Oak Associates, 2011), rendering this feature unsuitable as breeding habitat due to the lack of adequate water depth and duration to allow successful metamorphosis of juveniles. No other aquatic habitat suitable for CTS breeding is present on-site.

California tiger salamanders were also observed in three ponds on and adjacent to the Oak Grove project site to the east of Lund Ranch in December 2005 (Mundie & Associates 2006). A review of aerial photos of the area between the Lund Ranch and Oak Grove project sites indicates that there are no insurmountable barriers to dispersal between the three occupied ponds to the east and the Lund Ranch property (Figure 4.3-2). Pond 2 on the Oak Grove property is the closest of the occupied features to the Lund Ranch property. It is approximately 1,900 feet east of the Lund Ranch property

and the nearest trail construction proposed on the Lund Ranch property, and approximately 3,000 feet east of the nearest proposed lot (Lot 32) on the Lund Ranch property. Adult CTS have been observed up to 1.3 miles from the nearest breeding habitat (S. Sweet, University of California, Santa Barbara, in litt. 1998) although in an experimental study, 95 percent of California tiger salamanders resided within 2,100 feet of their breeding pond at Jepson Prairie in Solano County (Trenham and Shaffer, 2005).

There are 11 additional records of California tiger salamander within 3.1 miles of the project site (CNDDB, 2012) (Table 4). Records within 3.1 miles were identified since that is the distance established by the USFWS in the *Site Assessment for the California Tiger Salamander* protocol (USFWS, 2003).

California tiger salamander is a long-lived species (8-10 years in the wild), with aestivating adults persisting in upland habitats surrounding former breeding sites for several years (Trenham and Shaffer 2005). Given the failure of the dam around 2000, it is likely that 14 or more years have passed since successful breeding occurred on-site. Accordingly, it is highly unlikely that any individuals originating from the on-site breeding pond remain on-site. But since occupied breeding habitat within the known movement distance between breeding and upland habitat is also present on the Oak Grove property, CTS may be present on the Lund Ranch property and within areas subject to earthwork for trail and homesite construction.

Callippe Silverspot Butterfly (*Speyeria callippe callipe*). Federal listing status: Endangered; State listing status: None.

Legal Status. The Callippe silverspot butterfly was listed as endangered throughout its range by the USFWS on December 5, 1997 under the authority of the Federal Endangered Species Act (USFWS, 1997). This butterfly and its associated habitat are threatened by fire suppression and related wildfire problems associated with lack of fuel reduction, urban development, genetic isolation, and excessive livestock grazing.

Critical habitat for this species was re-proposed on March 28, 1980 (USFWS, 1980), but a final rule designating critical habitat has not been adopted. A recovery plan for this butterfly has also not been published.

This species has no status under the California Endangered Species Act.

Ecology. Habitat for the Callippe silverspot butterfly consists of its larval host plant *Viola pedunculata*, adult nectar sources such as California buckeye and a variety of native and nonnative flowering plants, and hilltops and/or ridgelines for mate selection (USFWS, 1997). The females lay their eggs on the dry remains of the larval host plant, or on the surrounding debris (Arnold, 1981). After hatching, the caterpillars move a short distance and spin a silk pad in which they pass the summer and winter. In the spring, the caterpillars immediately seek food plants. In May, after having

gone through five instars, each larva forms a pupa within a chamber of leaves drawn together with silk. Adults emerge in about two weeks and live for approximately three weeks. Depending upon environmental conditions, the flight period of this single-brooded butterfly ranges from mid-May to late July. The adults exhibit hilltopping behavior, a phenomenon in which males and virgin or multiple-mated females seek a topographic summit on which to mate (Shields, 1967).

Suitability of Site to Support Species. The Callippe silverspot butterfly is known to occur from two locations based on the federal listing of this subspecies; at San Bruno Mountain near San Francisco, and at a site near Joaquin Miller Park in Oakland (USFWS, 1997). In more recent years, some *Speyeria callippe* populations in Solano County are being considered as Callippe silverpots (LSA, 2009), however determining the distribution of this subspecies outside of its type location on San Bruno Mountain is problematic due to indistinct differences in color and size between Callippe and other similar looking subspecies of *Speyeria callippe.* In areas such as the East Bay Hills, where the distributions of *Speyeria callippe callippe* and the nonlisted *Speyeria callippe comstocki* may overlap, designating individual populations to subspecies is especially difficult.

The species *Speyeria callippe* is distributed throughout the western United States with various subspecies occurring in different regions. In the San Francisco Bay Area, there are three subspecies: Comstock's silverspot (*Speyeria callippe comstocki*) in the east and south San Francisco Bay Area, including the region surrounding the Lund Ranch Study Area; Lilian's silverspot (*Speyeria callippe liliana*) in the north bay (i.e. Marin/ Sonoma /Napa and northward) and the Callippe silverspot originally found on coastal bluffs in San Mateo County, San Francisco, and in the Oakland Hills but now is primarily restricted to San Bruno Mountain in northern San Mateo County (Howe, 1975). The Callippe silverspot's distribution is considered to be in the "fogbelt", and its morphological characteristics (i.e. darker coloration and larger size) are considered an adaptation to this microclimate. These three subspecies and their locales are based on historical observations by various lepidopterists that collected and analyzed the morphological characteristics (wing patterns, colors and size) of *Speyeria callippe* in the San Francisco Bay Area region and their collections are stored at research collection facilities such as the California Academy of Sciences in San Francisco. These collections date back to the early part of the 20th Century and were collected over the span of several decades. In some cases this information is supplemented by focused research on endangered species conducted under the supervision of the US Fish and Wildlife Service (Thomas Reid Associates, 1982).

There is a high overlap in the physical characters of *Speyeria callippe* subspecies due to the gradation of these characters between populations, which are physically connected in some locations, allowing interbreeding and genetic exchange to occur. When looking at only one or a few individual *Speyeria callippe* butterflies from each of the different regions of the San Francisco Bay Area, the color and size differences between these subspecies can be subtle, or in some cases nonexistent. It is therefore nearly impossible to ascertain and attribute particular individuals to subspecies without collecting large sample sizes of butterflies over multiple years. Therefore the distribution of these subspecies

based on larger historical data sets (such as collected by Mattoon and others) is still the most valid determination available. Until there is a genetic basis or other more definitive method to differentiate the subspecies, the distributions based on historical collections are more reliable than individual sightings of butterflies.

While Dr. Dick Arnold reported that two individual Callippe silverspots were detected during surveys for this species on the Oak Grove project site to the east of the Lund Ranch Study Area in 2005 and 2006 (Mundie & Associates 2006), definitive identification to subspecies was not made, and the finding that the two butterflies were Callippe silverspot is controversial (LOA, 2012 and 2011). Ultimately, a determination of the presence of Callippe silverspot in the region surrounding the study area would be made by the USFWS.

Surveys for Callippe silverspot butterfly were not conducted for the proposed project, but the extent of the larval host plant was mapped in 2007 and 2012 (LOA, 2012 and 2007). Based on the large extent of *Viola pedunculata* (several thousand plants) located on the upper slopes and hilltops of the Lund Ranch II site, it is likely that this site supports a population of *Speyeria callippe*. Due to the location of the site in the southeast portion of the San Francisco Bay Area, and well outside the fogbelt, the subspecies at this site would be considered *Speyeria callippe comstocki*. Construction of the project would not disturb any of the populations of the larval host plant.

4.3.2 REGULATORY FRAMEWORK

A number of biotic resources, including threatened and endangered plants and animals, or special habitats (such as wetlands) are protected by local ordinance, or state or federal statute. Protected resources, and pertinent statutes and ordinances are discussed below.

WETLANDS AND OTHER "JURISDICTIONAL WATERS"

Natural drainage channels and wetlands may be considered “Waters of the United States” (hereafter referred to as “jurisdictional waters”). The USACE regulates the filling of such waters under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by “ordinary high water” marks on opposing channel banks. Wetlands are habitats with soils that are intermittently or permanently saturated or inundated. The resulting anaerobic conditions select for plant species known as hydrophytes that show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophytic vegetation, hydric soils (soils saturated intermittently or permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 Corps of Engineers Wetlands Delineation Manual (USACE, 1987).

Section 404 of the Clean Water Act (CWA) of 1972 regulates activities that result in the discharge of dredged or fill material into waters of the U.S., including wetlands and drainage channels. The primary intent of the CWA is to authorize the U.S. Environmental Protection Agency (EPA) to regulate water quality through the restriction of pollution discharges. The USACE has the principal authority to regulate

discharges of dredged or fill material into waters of the U.S. through various federal permits. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values, and if avoidance is not practicable.

Pursuant to Section 401 of the Clean Water Act, an applicant for a federal permit to conduct any activity which may result in discharge into waters of the U.S. must provide a certification from the Regional Water Quality Control Board (RWQCB) that such discharge will comply with the state water quality standards (Cal. Code Regs. Title 23, §§3830 *et seq*.). The RWCQB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit.

Under the California Porter-Cologne Water Quality Control Act (Cal. Water Code §§13000-14920), the RWQCB is authorized to regulate the discharge of waste that could affect the quality of the State's waters. "Waste" is broadly defined by the Porter-Cologne Act to include "sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature..." (Cal. Water Code §13050).

The CDFW exercises jurisdiction over wetland and riparian resources associated with rivers, streams, and lakes under California Fish and Game Code Sections 1600 to 1607. The CDFW has the authority to regulate work that will substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed. Areas subject to CDFW's jurisdiction over rivers, streams, creeks or lakes are usually bounded by the top-of-bank or the outermost edges of riparian vegetation.

In authorizing the discharge of fill into waters of the U.S. and state, the USACE, RWQCB and CDFW typically stipulate that certain measures will be implemented to protect habitat values and to compensate for the impacts of the project on waters of the U.S. and state.

A wetland delineation was conducted by Zander Associates and verified by the USACE on May 2002. The verified delineation determined that 1.04 acres of areas (0.096 acres of in-channel wetlands, 0.361 acres of wetland seeps and 0.580 acres of tributary waters) under the jurisdiction of the USACE existed on-site (see Table 4.3-1 on page 4.3-1). The jurisdictional determination also defines the area subject to the RWQCB's 401 certification authority. The USACE verified this delineation again on June 4, 2007 (USACE, 2007). Although the jurisdictional determination expired on November 26, 2012, a new determination, which will be required, is expected to be similar or identical to the one that expired. The area between the bed and bank of Drainage Channels A and B would be included within the areas under the jurisdiction of the CDFW.

THREATENED AND ENDANGERED SPECIES

State and federal "endangered species" legislation has provided the CDFW and the USFWS with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as "species of special status". Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the "take" of a listed species. "Take" is defined by the state of California as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (California Fish and Game Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under the California Environmental Quality Act (CEQA). Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

Due to the potential for CTS to be present within the study area, the potential for project construction could result in a "take" of individuals. The City will consult with the appropriate Responsible Agencies having jurisdiction over wildlife resources and ensure that the required approvals are obtained prior to project construction. As the Lead Agency, the City will coordinate the implementation of appropriate mitigation for potential impacts to CTS, if detected.

MIGRATORY BIRDS

State and federal law also protect most bird species. The Migratory Bird Treaty Act (MBTA: 16 U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

To ensure compliance with the Migratory Bird Treaty Act, the project proponent will be required to conduct appropriately timed surveys to identify active nests of migratory birds prior to the start of site disturbance, if scheduled to commence during the nesting season (February 1 through August 31), and observe no-disturbance buffers around active nests, if present.

BIRDS OF PREY

Birds of prey are also protected in California under provisions of the State Fish and Game Code, Section 3503.5, (1992), which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or

otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

The preconstruction surveys described in Section 4.3.2.3 would also be required to ensure compliance with Fish and Game Code Section 3503.5.

TREE PRESERVATION ORDINANCE

The City of Pleasanton's Tree Preservation Ordinance, Chapter 17, aims to preserve Heritage Trees, which are any of the following:

1. Any single-trunked tree with a circumference of fifty-five inches or more measured four and one half feet above ground level.
2. Any multi-trunked tree of which the two largest trunks have a circumference of fifty-five inches or more measured four and one half feet above ground level.
3. Any tree thirty-five feet or more in height.
4. Any tree of particular historical significance specifically designated by official action.
5. A stand of trees the nature of which makes each dependent upon the other for survival or the area's natural beauty.

Pertinent provisions from the City of Pleasanton's Tree Ordinance are listed below, along with an analysis of the project's consistency with the ordinance.

Tree Preservation Ordinance Chapter	Project Analysis
17.16.003 Purpose And Intent: *The city lies largely in a valley in which substantial portions were and are covered by native and indigenous trees. The city recognizes that preservation of such trees enhances the natural scenic beauty, sustains the long-term potential increase in property values which encourages quality development, maintains the ecology, moderates the effect of extreme temperatures, prevents the erosion of topsoil, helps create an identity and quality, which enhances the attractiveness of the city to visitors and increases the oxygen output of the area which is needed to combat air pollution. For these reasons the city council finds that in order to promote the public health, safety and general welfare of the city while at the same time recognizing individual rights to develop and maintain private property in a manner which will not be prejudicial to the public interest it is necessary to enact regulations controlling the removal and preservation of heritage trees within the city. However, the city council also recognizes that under certain circumstances heritage trees may properly be removed. Those circumstances include where heritage trees are*	Based upon three tree surveys (HortScience, 2002, 2004, 2011) performed on the project site, the proposed residential project would require the removal of 146 (24 percent) of approximately 1,700 trees on the subject property. The project design would retain approximately 1,550 trees on the property. Of the approximately 1,700 trees on the property, 742 (44 percent) of these are Heritage Trees. Of the 146 trees proposed for removal, 80 (55 percent) are classified as Heritage trees. The intent of the City's Tree Ordinance is the preservation of native and indigenous trees for a range of benefits to the community. The City also recognizes that Heritage trees may be removed for the purposes of new development on undeveloped land. To the extent that the proposed project would be considered feasible under all other circumstances, the City's Tree Preservation Ordinance would permit the removal of Heritage trees. The tree surveys of the project site indicate that approximately 91 percent of the total number of trees on the site would be retained, while 71

Tree Preservation Ordinance Chapter	Project Analysis
dangerous; are dead or diseased; are so situated on undeveloped land that their preservation would preclude feasible development; are so abundant their removal would not destroy the area's natural beauty or ecology or cause erosion; or have a significant impact on the property. It is the intent of this chapter to preserve as many heritage trees as possible throughout the city through staff review and the development review process. (Ord. 1737 § 1, 1998).	percent of all Heritage trees on the property would be preserved.

4.3.3 CONFORMANCE WITH LOCAL PLANS AND POLICIES

CITY OF PLEASANTON GENERAL PLAN

Pertinent policies of the Pleasanton General Plan 2005-2025 along with a discussion of the project's consistency with these policies are listed below.

General Plan Policies	Project Analysis
Land Use Element *Policy 19: Preserve designated open space areas for the protection of public health and safety, the provision of recreational opportunities, agriculture and grazing, the production of natural resources, the preservation of wildlands, water management and recreation, and the physical separation of Pleasanton from neighboring communities.*	The proposed project preserves approximately 161 acres of public open space encompassing steeply sloping grasslands, oak woodlands, and riparian woodland while maintaining the habitat values associated with these lands. It provides new trails and access to lands presently unavailable as amenities for community use. While agricultural uses would be displaced by the proposed residential development, the overall effects of converting the project area from agricultural to residential use was evaluated as part of the General Plan EIR.
Policy 21: Preserve scenic hillside and ridge views of the Pleasanton, Main, and southeast Hills ridges (Measure QQ, Nov. 2008)	Housing units and grading in the proposed project would be located on slopes of less than 25 percent and at least 100 vertical feet from ridgeline. Accordingly, the proposed project would conform to this policy.
Conservation and Open Space Element *Goal 2: Preserve and enhance the natural resources of the Planning Area, including plant and wildlife habitats, heritage trees, scenic resources, and watercourses.* *Policy 1: Preserve and enhance natural wildlife habitat and wildlife corridors.*	The project site is designated for residential use within the General Plan Land Use Map (City of Pleasanton 2009). The project plans support the preservation and maintenance of open space areas through the dedication of approximately 161 acres of open space for public access and use. The preservation of this acreage preserves wildlife habitat and corridors, substantially conforming to the intent of the General Plan policies for the conservation of natural resources and the preservation of wildlife habitat and corridors.
Policy 2: Preserve heritage trees throughout the Planning Area.	Please see Tree Preservation Ordinance discussion above.
Policy 3: Preserve and enhance streambeds and channels in a natural state.	The proposed development of residences, access road, storm drain system and retaining wall would require

General Plan Policies	Project Analysis
	alterations to approximately 243 linear feet (less than 8%) of approximately 3,250 of streambed and channel, preserving the majority of the site's southern stream course.
Policy 6: Protect all large continuous areas of Open Space, as designated on the General Plan Map, from intrusion by urban development. *Policy 7: Preserve and expand open-space opportunities, including open-space access to the public.* *Policy 9: Promote the development of a comprehensive system of pedestrian, bicycle, equestrian, and hiking trails throughout open-space lands, including arroyos and canals, in the Planning Area.*	The proposed project preserves approximately 161 acres of open space encompassing steeply sloping grasslands, oak woodlands, and riparian woodland while maintaining the habitat values associated with these lands. It provides new trails and access to lands presently unavailable as amenities for community use in a manner consistent with this policy are planned.
Policy 11: Reserve all areas designated on the General Plan Map as Agriculture and Grazing for the protection of this resource.	Although the historic and current uses of the project site have been for agriculture and grazing, the General Plan Map indicates that the property is presently planned for residential use. The overall effects of converting the project area from agricultural to residential use were evaluated as part of the General Plan EIR. The proposed project is consistent with the land uses designated by the General Plan.
Community Character Element *Goal 7: Preserve the open space character at the edges of the city.* *Policy 19: Require the design of new residential development in hillside areas to complement the natural appearance of the open space.*	The proposed project would provide new residential development that will be subject to City design review, ensuring that the project's residential design elements conform to City requirements for hillside development.
Policy 20: Preserve scenic hillside and ridge views, and other natural features in the hills.	The proposed project retains scenic hillside and ridge views as well as other natural features in the hills by locating residences in the lower portions of the property.
Subregional Planning Element *Policy 11: Preserve and enhance natural wildlife habitats and wildlife corridors.*	See discussion above for Policy 1, Conservation and Open Space Element.
Policy 12. Encourage the continuation of agricultural uses in the Tri-Valley.	See discussion above for Policy 11, Conservation and Open Space Element.
Policy 13: Enhance community identity through the protection of community separators, scenic hillsides, and ridgelines.	The new residential development would provide a continuation of the residential uses west and north of the project site. Development as proposed would extend the City's residential uses and cumulatively reduce the project site's contribution to community separation.
Public Safety Element *Policy 8: Reduce the risk of damage from natural hazards in the Tri-Valley. Establish appropriate*	The proposed project introduces new residential development in an area of steep slopes and subject to landsliding. The new residential development would also introduce new sources of storm runoff; however,

General Plan Policies	Project Analysis
subregional approaches to reduce damage from natural hazards, such as wildfires, flooding, and earthquakes.	the potential for increased downstream storm flows and potential flooding hazards would be offset by the project's proposed detention basin.

4.3.4 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based on Appendix G of the CEQA Guidelines, an impact is considered significant if the proposed project 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 Wildlife 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 Wildlife or US 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; or
- 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.

HABITAT LOSS AND TREE REMOVAL

Impact 4.3-1: Project construction would result in a loss of oak woodland/savanna habitat and would require the removal of 146 trees, including 80 Heritage trees. (Less than Significant with Mitigation)

Table 4.3-3 and Figures 4.3-1, 4.3-1a and 4.3-3 provide a summary of the project's impacts on biotic habitats that occur on the project site. The proposed project would entail the construction of 50 single-family residences, associated streets and facilities on the west side of the Lund Ranch property. Development of proposed residential uses would require the removal of some of the natural vegetation. Grading required to accommodate the development would primarily remove non-native grassland habitat

TABLE 4.3-3

SUMMARY OF THE EXTENT OF IMPACTS TO THE HABITATS FOUND ON THE LUND RANCH SITE

Habitat Type	Existing (Acres)	Impacts (Acres)	Percent of Habitat Impacted
Non-native Grassland (rangeland)	149.75	30.89	20.6
Blue Oak Woodland/Savanna	37.18	0.85	2.3
Riparian	4.15	0.00	0.0
Developed/Cultivated	2.74	2.74[a]	100.0
Seasonal Wetlands/Drainage Channels			
In-channel wetlands	0.096	0.006	6.3
Seeps	0.361	0.000	0.0
Drainage Channels	0.580	0.016[b]	2.8
Total wetlands/drainage channels	1.037	0.022	2.1
TOTAL	194.86	34.52[c]	17.7

NOTES:
[a] 0.68 acres of the developed area occur outside the limits of development and would be restored to natural habitat.
[b] This equates to 243 linear feet of channel.
[c] After restoration of 0.68 acres of developed area, the total area of disturbance is 33.8 acres.
SOURCE: Mosaic Associates (2012)

(approximately 30.9 acres), but would also require removal of small areas of the property that are already developed (2.7 acres), and the loss of 0.85 acre of blue oak woodland/savanna, a section of seasonal drainage channel (0.016 acre) and a small area of in-channel seep wetland (0.006 acre) or a total of 0.022 acre of wetlands/drainage channels. The loss of non-native grassland would not be a significant impact, given the regional abundance of this habitat and the onsite conservation of 161 acres of open space, much of which is grassland. Potential impacts to biological resources associated with the removal of existing development (structures) is addressed in Impact 4.3-3, while the loss of seasonal channel and in-channel seep is addressed in Impact 4.3-5.

The proposed project would retain 161 acres of the 195- acre site as public open space (Figure 4.3-1). The open space area would be dedicated to the City of Pleasanton as open space in perpetuity, and the management and maintenance of the open space areas would be the responsibility of the City. In addition to the residential development, the City of Pleasanton will develop pedestrian trails in the approximate locations noted on Figure 4.3-1. The trails will primarily be constructed in the location of existing earthen ranch roads, limiting the area of disturbance. A single pedestrian bridge or culvert crossing may be needed where the proposed trail crosses the seasonal drainage east of proposed Lot 32.

Table 4.3-4 provides a summary of tree removals and preservation in and adjacent to the development area. Arboricultural consultants HortScience surveyed trees within the proposed project impact area in April 2011 (HortScience, 2011). The survey included all trees greater than six inches in diameter at four and one half feet above ground level. HortScience assessed 220 trees within and immediately

surrounding the area proposed for development (Table 4.3-4). Forty-six (46) valley oak trees were present, 22 of which meet the City of Pleasanton's criteria as Heritage trees. Of the remaining 174 trees, 106 meet the criteria as Heritage trees. HortScience recommended and the project proposes the removal of 146 trees, and the preservation of 74 trees (**Figure 4.3-3**). All trees recommended for removal are either within the development envelope or immediately adjacent to structures that would be demolished.

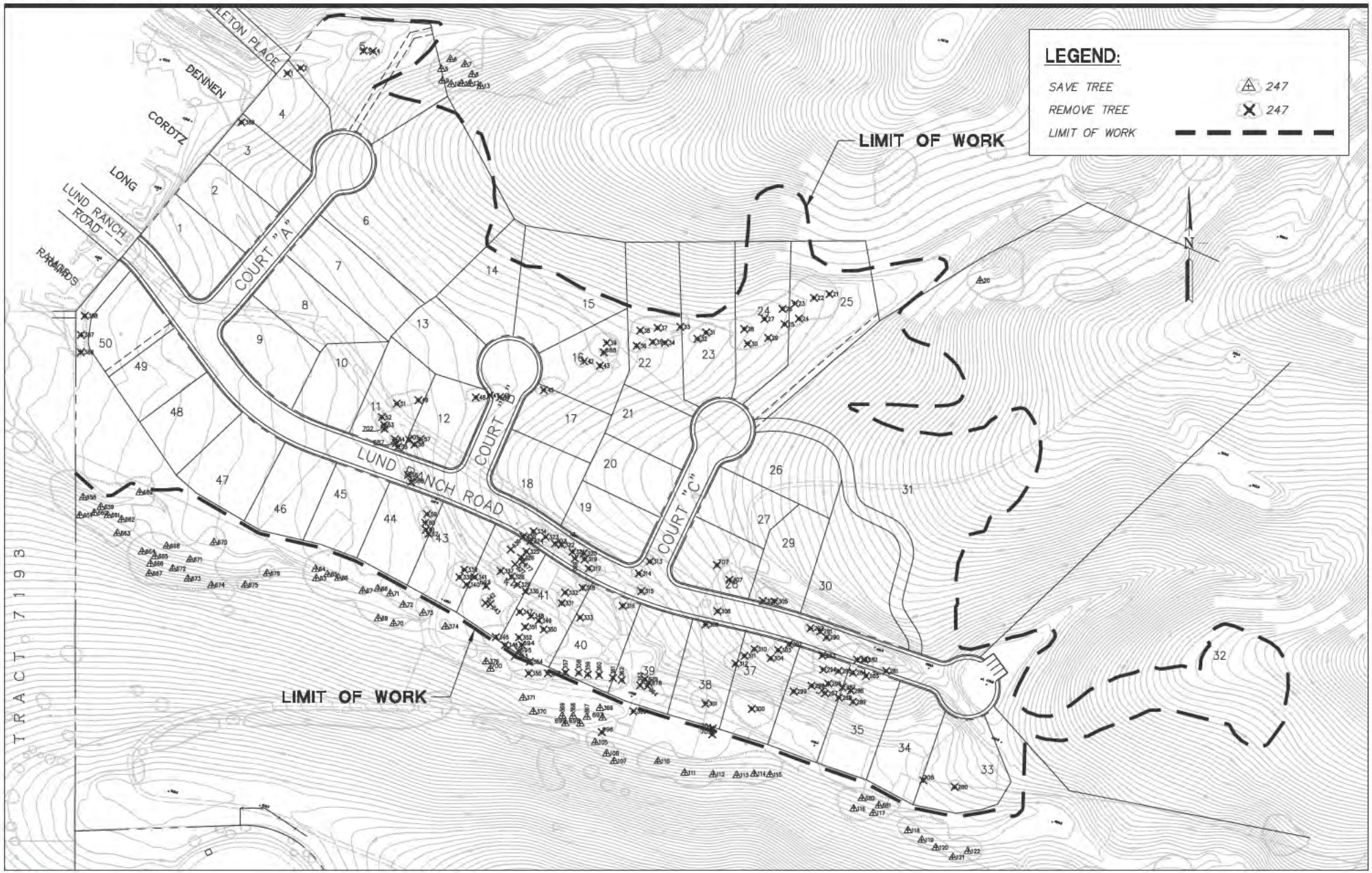
TABLE 4.3-4

TREES IN AND ADJACENT TO THE PROPOSED DEVELOPMENT AREA

		Preserve		Remove		No. of Trees	
Common Name	**Scientific Name**	**Non-Heritage**	**Heritage**	**Non-Heritage**	**Heritage**	**Heritage**	**Total**
Arizona Cypress	*Cupressus arizonica*	1	-	-	-	-	1
River Red Gum	*Eucalyptus camaldulensis*	-	-	-	1	1	1
Toyon	*Herteromeles arbutifolia*	-	-	1	-	-	1
Calif. Black Walnut	*Juglas hindsii*	7	23	15	14	37	59
English Walnut	*Juglans regia*	1	1	-	-	1	2
Myrtle	*Myrtus communis*	-	-	1	-	-	1
Olive	*Olea europaea*	1	2	1-	44	46	57
Canary Island Date Palm	*Phoenix canariensis*	-	-	-	2	2	2
Aleppo Pine	*Pinus halepensis*	-	-	1	-	-	1
Fremont Cottonwood	*Populus fremontii*	-	1	-	-	1	1
Almond	*Prunus dulcis*	5	2	-	-	2	7
Pomegranate	*Punicia granatum*	-	-	3	-	-	3
Pear	*Pyrus communis*	1	-	1	-	-	2
Valley Oak	*Quercus lobata*	6	14	18	8	22	46
Black Locust	*Robinia pseudoacacia*	-	3	16	8	11	27
Elderberry	*Sambucus mexicana*	4	2	-	-	2	6
Mexican Fan Palm	*Washingtonia filifera*	-	-	-	3	3	3
Total		**26**	**48**	**66**	**80**	**128**	**220**
		74		**146**			

SOURCE: HortScience (2011)

Of the trees recommended for removal, 26 are valley oaks, 8 of which are Heritage trees. Of the remaining 111 live trees recommended for removal, 72 are Heritage trees. The entire property contains approximately 1,700 trees in total, most of which are native to the region. Of the over 1,550 of the trees on the property (91%) would be retained under the proposed project.



Source: Ruggeri-Jensen-Azar (February 2013)

Oak woodlands are generally declining in California. The reasons for the decline are not well understood, but contributing factors include the harvesting of oaks for firewood, the clearing of oak woodland for agricultural and urban development, and range management practices that are unfavorable for the establishment of new trees. Blue oak woodland is not presently in danger of eradication from the state, but there is considerable concern that if the trend now evident is not reversed, these woodlands may, over time, disappear from some areas. The general loss of oak woodlands over the last few decades is further exacerbated by the recent discovery of a disease complex referred to as Sudden Oak Death Syndrome or SODS that is affecting thousands of acres of oak woodlands in coastal counties of California.

An area of 0.85 acre of oak woodland/savanna habitat would be removed by the proposed project. The impacted oak woodland/savanna habitat occurs in the southwest and the northwest corners of the development area (Figures 4.3-1 and 4.3-1a). The blue oak woodland occurring on the project site is both locally significant in its density and extent, and regionally significant within the context of natural resources in the Tri-Valley area. The removal of 0.85 acre constitutes a loss of 2.2 percent of the 37.14 acres of this habitat on-site. Impacts to blue oak woodland/savanna and the removal of 146 trees, including 80 Heritage trees from the site would constitute a significant impact under CEQA. However, implementation of the Mitigation Measures 4.3-1a and 4.3-1b, requiring preparation and implementation of an Oak Woodland Restoration Plan, protection of trees to be retained, and replacement of trees removed, would reduce impacts to oak woodland habitat and heritage trees to a less-than-significant level.

Mitigation Measure 4.3-1a: *An Oak Woodland Restoration and Management Plan shall be prepared by a qualified biologist and submitted to the City prior to the issuance of a Grading Permit. This Plan shall include provisions to:*

- *Maximize the diversity of plants and animals native to oak woodlands of the region;*
- *Encourage natural regeneration of native oaks (including blue oaks, valley oaks and coast live oaks) within undeveloped portions of the project site;*
- *Reduce fire hazards during the dry season; and*
- *Restrict livestock grazing.*

The oak woodland management plan would address tree replacement requirements as stipulated through City consultation with the CDFW for the project. Presently, the CDFW generally specifies a replacement ratio of 3:1 for the replacement of native oaks, regardless of the lost trees' positions relative to the riparian zone. The management plan should include restrictions on livestock grazing to ensure natural regeneration of oaks within the open space areas.

Mitigation Measure 4.3-1b: *The relevant provisions of the City of Pleasanton's Tree Ordinance, including acquisition of a tree removal permit (Section 17.16.020), reporting requirements for new property development (Section 17.16.050) and protection of existing trees (Section 17.16.070) shall be implemented. The Oak Woodland Restoration and Management Plan discussed above shall indicate the ratio, location, species, source of plant material and timing for planting. It shall also describe plans for*

maintenance and irrigation. Heritage trees should be replaced at a ratio consistent with the City's tree ordinance with small nursery stock. These ratios shall compensate for habitat values lost from the removal of mature trees. Planting time between November and January is recommended. To preserve the genetic integrity of trees of the site, acorns and seeds to be propagated should be collected on-site. A minimum maintenance and irrigation time of three years is recommended.

In order to optimize tree preservation on-site, the following measures formulated by HortScience shall be implemented to protect trees that are proposed to be retained:

Design Recommendations

1. *Verity the location and tag numbers of all trees within 25 feet of the proposed construction areas*
2. *Allow the Consulting Arborist to review all future project submittals including grading, utility, drainage, irrigation, and landscape plans.*
3. *Prepare a site work plan which identifies access and haul routes, construction trailer and storage areas, etc.*
4. *Establish a Tree Protection Zone around each tree to be preserved. For design purposes, the Tree Protection Zone shall be the edge of grading. No grading, excavation, construction or storage of materials shall occur within that Zone.*
5. *Install protection around all trees to be preserved, to be located three feet outside the limit of grading. No entry is permitted into a Tree Protection Zone without permission of the project superintendant.*
6. *Route underground services including utilities, sub-drains, water or sewer around the Tree Protection Zone. Where encroachment cannot be voided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury.*
7. *Use only herbicides safe for use around trees and labeled for that use, even below pavement.*
8. *Design irrigation systems so that no trenching shall occur within the Tree Protection Zone.*

Pre-Construction and Demolition Treatments and Recommendations

1. *The demolition contractor shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection.*
2. *Trees to be removed shall be felled so as to fall away from Tree Protection Zone and avoid pulling and breaking of roots of trees to remain. If roots are entwined, the consultant may require first severing the major woody root mass before extracting the trees, or grinding the stump below ground.*

Tree Protection During Construction

1. *Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.*
2. *Any grading, construction, demolition or other work that is expected to encounter tree roots should be monitored by the Consulting Arborist.*
3. *If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.*
4. *Fences shall be erected to protect trees to be preserved. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the project superintendent.*
5. *Construction trailers, traffic and storage areas must remain outside fenced areas at all times.*
6. *No materials, equipment, spoil, waste or wash-out water may be deposited, stored, or parked within the Tree Protection Zone (fenced areas).*
7. *Any additional tree pruning needed for clearance during construction must be performed by a qualified arborist and not by construction personnel.*
8. *All trees shall be irrigated on a schedule to be determined by the Consulting Arborist. Each irrigation shall wet the soil within the Tree Protection Zone to a depth of 30 inches.*
9. *Any roots damaged during grading or construction shall be exposed to sound tissue and cut cleanly with a saw.*

Impact Significance After Mitigation: Less than Significant.

IMPACTS TO SPECIAL-STATUS PLANTS AND ANIMALS

Based on a search of records in the CNDDB and CNPS on-line electronic inventory, 49 special-status plant species are known to occur in the nine-quad region surrounding the project site (Table 1 of Appendix B). No special-status plants were detected on-site during botanical surveys conducted in 1999, 2002, 2007 and 2012 (Zander Associates, 1999; LOA, 2012, 2007, and 2002). Since there would be no impacts to special-status plants, no mitigation would be required.

Forty-two special-status animal species occur, or once occurred, regionally (Table 2 of Appendix B). Of these, 26 species are absent or unlikely to occur on the study area due to a lack of suitable habitat, the effects of regional development, the introduction of non-native species throughout the region, or the effects of decades of grazing. These include longhorn fairy shrimp, vernal pool fairy shrimp, midvalley fairy shrimp, San Bruno elfin butterfly, Antioch efferian robberfly, Bridges' coast range shoulderband snail, curved-foot hygrotus diving beetle, California linderiella, Callippe silverspot butterfly, central California coast steelhead, western pond turtle, San Joaquin whipsnake, Alameda whipsnake, coast horned lizard, foothill yellow-legged frog, California red-legged frog, western spadefoot toad, great blue

heron, prairie falcon, American peregrine falcon, bald eagle, California black rail, Alameda song sparrow, Berkeley kangaroo rat, Yuma myotis, San Francisco dusky-footed woodrat, American badger and San Joaquin kit fox. The project is not expected to have an impact on these species.

While two individual Callippe silverspots were reported to have been detected during surveys on the Oak Grove project site to the east of the Lund Ranch Study Area in 2005 and 2006 (Mundie & Associates 2006), the butterflies were not observed "in hand", and definitive identification to subspecies could not be made. Additional analysis of morphological characteristics and the distribution of the subspecies by species experts concluded that the variation in wing coloration of the butterflies observed on the Oak Grove site were typical of wing color between neighboring subspecies (LOA, 2011 and 2012) and that by itself, could not be used to confirm identity to subspecies. Without conclusive genetic analysis and a determination by the USFWS that *Speyeria callippe* butterflies in this area are the Callippe silverspot subspecies, any *Speyeria callippe* butterflies present on-site would be considered to be Comstock's silverspot (*Speyeria callippe comstocki*), rather than Callippe silverspot (*Speyeria callippe callippe*) (Mosaic Associates, 2012). Furthermore, the project development would be located a minimum of 135 to 150 feet from any of the *Viola pedunculata* (larval host plant) populations present on-site, and would not impact these plants. Therefore, the project would not affect the Callippe silverspot butterfly.

Three other species may rarely or occasionally occur on-site as foragers. These include sharp-shinned hawk, tricolored blackbird, and ferruginous hawk. The proposed project would not affect the breeding success of any of these species, and would only result (at most) in a small reduction of foraging and/or roosting habitat available to them regionally. Therefore, the project would result in a less-than-significant impact on these species.

Seven animal species have a moderate to low potential to occur on-site. They may regularly forage or breed on-site. These include Cooper's hawk, golden eagle, burrowing owl, northern harrier, pallid bat, Townsend's bat, and hoary bat. An additional four special-status species have been observed on-site, including California tiger salamander (CTS), white-tailed kite, California horned lark, and loggerhead shrike. While direct impacts to individuals of these 11 species would be considered a significant impact, the loss or fragmentation of habitat resulting from development of the proposed project is expected to result in less-than-significant impacts to these species, which are relatively common to the region, except for CTS. Potential impacts of project construction on CTS, special-status bats, and nesting birds are addressed in Impacts 4.3-2, 4.3-3 and 4.3-4.

Impact 4.3-2: The project would result in the loss of habitat for the California tiger salamander and individual California tiger salamanders may be taken during construction of the project (Less than Significant with Mitigation)

The project would impact a portion of the former stock pond (Figure 4.3-1 and 4.3-1a) in which CTS were observed in 2002, and some of the surrounding aestivation habitat for this species. The project would also impact upland habitat that may be used by CTS that disperse from breeding ponds on the adjacent Oak Grove property. The nearest of those three ponds is Pond 2, which is approximately 3,000

feet from the closest residential development and approximately 1,900 feet from the nearest trail development. While no breeding habitat currently exists on-site, aestivation habitat remain around this former stock pond and in upland habitat on the site. While unlikely, there is also a small chance that individuals from the population that bred in the former stock pond may remain on-site. The loss of CTS individuals and associated aestivation habitat would constitute a significant impact. The focus of the Mitigation Measures 4.3-2a and 4.3-2b is to preserve suitable upland aestivation habitat, and salvage and relocate any individual CTS that may be present on-site. With implementation of the following mitigation measures, the project's impacts on CTS and its habitat would be reduced to a less-than-significant level.

Mitigation Measure 4.3-2a: *To mitigate for the loss of aestivation habitat and potential impacts to any aestivating California Tiger Salamander (CTS) on-site, the project applicant shall permanently preserve and manage potential CTS upland aestivation habitat located on the project site between the proposed development area and Pond 2, located on the adjacent Oak Grove property. The amount of such preserved and managed habitat shall be not less than the amount of land developed as a result of project construction (i.e., 1:1 acreage ratio). The applicant shall preserve such habitat through the recording of a deed restriction, conservation easement, or other equivalent instrument which precludes future development or the construction of physical barriers to the movement of CTS across the preserved habitat. The applicant shall also develop, and arrange for the implementation of a habitat management plan for the preserved habitat. Prior to the issuance of a grading permit, the applicant shall provide a copy of the recorded instrument (which will identify the precise size and location of the permanently preserved habitat), the habitat management plan and the federal and state take authorizations to the City. The applicant shall also provide copies of the incidental take authorizations secured for the project from the USFWS and CDFW to the City.*

Mitigation Measure 4.3-2b: *To avoid and minimize the loss of individual California Tiger Salamander (CTS), the applicant shall be responsible for implementing the following measures prior to and during construction:*

- *Prior to ground disturbance, an employee training program for operators/contractors shall be conducted by a qualified biologist to explain the endangered species concerns at the project site;*
- *Site grading shall be conducted outside of the rainy season months during which CTS would be breeding or migrating;*
- *A qualified biologist shall conduct a preconstruction survey prior to the onset of site grading. All suitable habitat features that may be used by aestivating CTS shall be identified, marked and mapped during the preconstruction survey. The removal or destruction of suitable habitat features shall be conducted under the direct supervision of the qualified biologist prior to the onset of site grading. Any observed CTS shall be turned over to the USFWS or CDFW personnel for relocation, or shall be relocated by a biologist possessing an Endangered Species Act 10(a)(1)(A) permit as directed by the USFWS and CDFW;*

- *Best Management Practices shall also be implemented to minimize the potential mortality, injury or other impacts to CTS. Any installed erosion control materials shall not include small-mesh plastic netting. All trash items shall be removed from the project site to reduce the potential for attracting predators of CTS, such as crows and ravens.*

Impact Significance After Mitigation: Less than Significant.

SPECIAL-STATUS BAT SPECIES

Impact 4.3-3: Project construction could disturb a maternity colony of bats and roosting special-status bats on the project site, resulting in the loss of individual bats or the abandonment of an active maternity colony. (Less than Significant with Mitigation)

The open grassland, oak woodland/savanna and abandoned structures on-site have the potential to support several common and rare bat species that forage within grassland and woodland habitats and roost within trees and structures. The grasslands, woodlands, and structures (abandoned barns, house and outbuildings) on the site provide potentially suitable roosting and foraging habitat for the rare pallid bat and Townsend's big-eared bat. Demolition of these structures has the potential to impact individuals and/or a maternity site. Both of these species are California Species of Special Concern, and are considered by the Western Bat Working Group as 'High Priority' species for protection. Both species are known from the Pleasanton, Sunol and/or Livermore areas. Impacts to a maternity colony of any species of bats or roosting special-status status bats would be a significant impact. Implementation of Mitigation Measure 4.3-3, which prohibits disturbance of any bat maternity colonies or roosts, would reduce this potential impact to a less-than-significant level.

Mitigation Measure 4.3-3: *The implementation of the following measures would ensure that maternity colonies of bats and roosting pallid bats and Townsend's big-eared bats would not be disturbed.*

a. *A qualified biologist, knowledgeable about local bat species and experienced with bat survey methods, shall inspect all structures and trees that could support bats in the project area prior to the start of site disturbance (e.g. demolition, vegetation removal and earthwork). Surveys should be conducted during appropriate weather to detect bats (not in high winds or during heavy rain events). One daytime and up to two nighttime surveys (starting at least 1 hour prior to dusk) should be conducted to determine if bats are present. If bats are detected, additional surveys utilizing acoustic monitoring or other methods may be necessary depending on the recommendations of the bat biologist.*

b. *Preconstruction surveys for bats should be conducted within two weeks prior to the removal of any trees or structures that are deemed to have potential bat roosting habitat. If bats are detected on-site and would be impacted by the project, then appropriate measures would be developed through City consultation with the CDFW. Mitigation measures would include one or more of the following methods: using one-way doors to exclude non-breeding bats, opening up roof areas of*

structures to allow airflow that would deter bats from roosting, and taking individual trees down in sections to encourage bats to relocate to another roost site. Typically this work is conducted in the evening when bats are more active, and this work should be conducted under the guidance of an experienced bat biologist.

c. *Mitigation for impacts to a maternity bat roost, if detected, would be determined through consultation with CDFW and may include construction of structures that provide suitable bat roosting habitat (i.e. bat houses, bat condos) for the particular specie(s) impacted.*

Impact Significance After Mitigation: Less than Significant.

RAPTORS AND MIGRATORY BIRDS

Impact 4.3-4: Project construction could adversely affect raptor and/or other migratory bird nesting activity on the project site, result in the loss of individual birds, eggs or nestlings, or the abandonment of active nests. Project construction could also result in the loss of occupied burrowing owl habitat if burrowing owls or signs of owls are observed within the project development area. (Less than Significant with Mitigation)

While numerous trees suitable for nesting raptors exist on the site no obvious stick nests were observed during any of the surveys. Nonetheless, future construction activities could adversely affect future nesting activity, or result in mortality of individual birds. This would be a violation of state and federal law. Additionally, while burrowing owls were not detected on the site, they are a volant (e.g., flying) species that could potentially colonize the site sometime in the future. Raptors are afforded protection from take by the Migratory Bird Treaty Act (MBTA: 16 U.S.C, scc 703, Supp. I, 1989), and California Fish and Game Code (Section 3503.5, 1992).

The grasslands and trees on the site also provide nesting habitat for other special-status and non-special-status birds which are afforded protection from take by the Migratory Bird Treaty Act and Fish and Game Code (Op. cit.). The project would not substantially affect nesting habitat for raptors or other migratory birds as 82 percent of site would not be disturbed and would be preserved as open space. However, if a raptor (e.g., red-tailed hawk, burrowing owl, etc.) or other migratory birds were to nest on the site prior to construction, the project could result in a potentially significant impact to active nests due to construction disturbance. Additionally, construction activities that would harm or kill a burrowing owl (a ground nesting raptor) during the non-breeding season would also constitute a significant impact. While a similar legal prohibition exists for tree nesting raptors, these birds would not be subject to unintended harm or injury during the non-breeding season, as they roost in trees and would simply leave the roost in response to construction-related disturbance. Implementation of Mitigation Measure 4.3-4, pre-construction surveys for nesting raptors and burrowing owls, would reduce this potential impact to a less-than-significant level.

Mitigation Measure 4.3-4: *The implementation of the following measures would ensure that raptors (hawks and owls) and other migratory birds are not disturbed during the breeding season and that burrowing owls and occupied habitat are not taken at any time of year:*

a. A qualified ornithologist shall conduct a pre-construction survey for nesting raptors (including both tree and ground nesting raptors) and other migratory birds on-site within two weeks of the onset of site disturbance (e.g. demolition, vegetation removal and earthwork), if ground disturbance is to occur during the breeding season (February 1 to August 31). These surveys shall be based on the accepted protocols for the target species. These surveys shall explicitly consider the burrowing owl as a potential target species and pre-construction efforts shall be conducted according to the most recent protocol. If a nesting raptor or active nest of another migratory bird were to be detected, an appropriate no disturbance buffer would be established in consultation with CDFW. In general, no-disturbance buffers around active nests of raptors are 250-300 feet, while the buffers around the nests of passerines (perching) are 50 feet. The actual size of buffer would depend on species, topography, and type of construction activity that would occur in the vicinity of the nest. The location of no-disturbance buffers would be marked in the field and communicated to the construction team during the preconstruction environmental training meeting described above in Mitigation Measure 4.3-2b.

b. A qualified ornithologist shall conduct pre-construction surveys for burrowing owls during the non-breeding season. Pre-construction surveys during the non-breeding season are not necessary for tree nesting raptors, as they are expected to abandon their roosts during construction. If pre-construction surveys (conducted either during the breeding or non-breeding season) determine that burrowing owls occupy the site, mitigation consistent with the Staff Report on Burrowing Owl Mitigation (CDFG, 2012) would be implemented. Mitigation measures may include take avoidance, site surveillance, minimizing impacts through the use of no disturbance buffers, burrow exclusion and closure (blocking burrows with one-way doors) and compensation for the loss of occupied habitat. These measures may be necessary to ensure that owls are not harmed or injured during construction, and that the loss of occupied habitat is mitigated. Mitigation for the loss of occupied habitat could be accomplished on or off the property through City consultation with CDFW and the acquisition of the required permit.

Impact Significance After Mitigation: Less than Significant.

WETLANDS, RIPARIAN HABITAT, AND WATERS OF THE UNITED STATES

Impact 4.3-5: Project construction would require the filling of seasonal drainage channels and in-channel wetlands. (Less than Significant with Mitigation)

Construction of a cul-de-sac in the eastern corner of the development and retaining walls and earthwork to create the designed elevation of homesites in the southern portion of the development would require the fill of an in-channel wetland and a portion of Drainage A. A total of 243 linear feet of Drainage A (0.016

acres) and 0.006 acres of in-channel wetland would be directly affected by the project. This impact would be considered significant. These impacts will be regulated by the USACE, CDFW and RWQCB and all relevant permits would need to be obtained prior to construction. With implementation of Mitigation Measure 4.3-5, which requires compensation for the loss of drainage channel, this impact would be reduced to a less than significant.

The in-channel wetland and drainage channel that would be impacted by the project qualify as waters of the United States, which are protected under Section 404 of the Clean Water Act. Material placed in these areas would be considered fill in waters of the United States, and would require Clean Water Act Section 404 authorization from the USACE, as well as Clean Water Act Section 401 water quality certification from the RWQCB. State and federal agencies require avoidance, minimization and compensatory mitigation for the loss of wetland habitat.

The federal government supports a policy of minimizing "the destruction, loss, or degradation of wetlands" (Executive Order 11990, May 24, 1977). Wetland habitats are considered sensitive locally, regionally and statewide because of their habitat values and because they are in decline across the state. Substantial statewide decline of wetland communities in recent years has increased concerns about dependent plant and wildlife species, leading state and federal agencies to adopt policies to prevent further loss.

CDFG has adopted a "no-net-loss" policy for wetlands.[1] Because wetlands and the seasonal Drainage A are sensitive natural communities, the loss of wetlands, and impacts on creek habitat due to the proposed project would be a significant impact. With implementation of Mitigation Measure 4.3-5, which requires compensation for the loss of wetlands, this impact would be reduced to a less than significant.

None of the proposed land use changes would either directly or indirectly (e.g., encroach) affect riparian habitats of the region. The riparian habitats associated with Drainages A and B would not be indirectly or directly affected by the project. Proposed development would be located more than 500 feet from the edge of riparian habitat.

Mitigation Measure 4.3-5: *The proposed project would impact 0.022 acre of Waters of the United States (0.016 acre and 243 lineal feet of drainage channel waters, and 0.006 acre of in-channel wetlands). While compensation for impacts to Waters of the United States shall occur at a minimum of a 1:1 replacement ratio, the CDFW and RWQCB generally require a replacement ratio of 2:1 or better. To the degree possible, the applicant shall replace lost wetland resources in kind. Thus, the project would create at least 243 feet (0.016 acre) of channel (1:1 ratio) and 0.006 acres of seasonal wetland on the Lund Ranch property. Creation of new channels can be logistically difficult as there are finite areas within a site to accomplish this type of mitigation. Therefore, some mitigation for the seasonal channel*

[1] California Fish and Game Commission. 1987. *Wetlands Resource Policy*. Sacramento, CA.

may have to be out-of-kind. This could be accomplished by creating additional seasonal wetlands. The creation of not less than 0.022 acre of wetland and/or seasonal channel would be required.

The site supports sufficient opportunities to accommodate creation of wetland habitat. Even if the project could not create 243 feet of channel, there are a number of areas along Drainage Areas A and B and within the non-jurisdictional drainage swales on the site that could easily accommodate this type of constructed wetland mitigation.

The goal of this mitigation should be to create new wetlands and enhance existing wetlands in a way that replaces the functions and values of the wetlands that are proposed to be filled. A qualified biologist should develop a restoration plan that identifies the full extent of the impact, location of suitable sites to create or enhance wetlands of the necessary acreage, and develop success criteria specific to the actual wetland creation design. The mitigation site should be monitored for at least five years. A detailed wetland restoration plan should be developed for this mitigation area during the regulatory permitting phase of the project. The plan will be subject to review by the City of Pleasanton and acquisition of the required permits through City consultation with the USACE, RWQCB, CDFW. This plan should incorporate additional studies and details, including the following:

- *Type and acreage of wetland to be impacted and goals for wetland creation*
- *Detailed assessment of soil suitability for wetland creation*
- *Description of site hydrology, including depth and duration of inundation, potential for scour or deposit of sediments, etc.*
- *Site preparation measures, including grading methods, to relieve compaction and/or ensure low potential for scouring of soils*
- *Revegetation and erosion control on slopes surrounding the mitigation site*
- *Description of buffer areas around the mitigation*
- *Maintenance program*
- *Long term monitoring program, including performance and success criteria.*
- *Measures to assure protection from human disturbance and to protect the area from development in perpetuity.*

Impact Significance After Mitigation: Less than Significant.

SEASONAL DRAINAGES, STOCK PONDS, AND DOWNSTREAM WATERS

Impact 4.3-6: Development of the project could result in the degradation of water quality in seasonal drainages, and downstream waters and affect associated habitat quality. (Less than Significant)

Site development would require the construction of roads, driveways, building pads and associated facilities. Construction would require grading that leaves the soil of construction zones barren of vegetation and, therefore, vulnerable to sheet, or gully erosion. Eroded soil is generally carried as sediment in surface runoff to be deposited in natural creek beds, canals, and adjacent wetlands. Furthermore, urban runoff is often polluted with grease, oil, residues of pesticides and herbicides, heavy metals, etc. These pollutants may eventually be carried to sensitive wetland habitats used by a diversity of native wildlife species. The deposition of pollutants and sediments in sensitive wetland habitats would be considered a potentially significant adverse environmental impact. However, with required compliance with provisions of the City's grading permit and the State Water Quality Control Board's General Stormwater Permit (see Section 4.5, Hydrology and Water Quality for more discussion), the project's potential impacts on water quality will be reduced to less than significant. The project will be required to demonstrate that best management practices (BMPs) have been implemented and post-construction BMPs, including the construction of a detention basin in the southwest corner of the development area, have been incorporated into the project design.

Mitigation Measure 4.3-6: *None required.*

LOSS OF HABITAT FOR NATIVE WILDLIFE

Impact 4.3-7: Project development would convert 12 percent of the site to urban uses. (Less than Significant)

Development of the site would convert 22.7 acres or approximately 12 percent of the site to developed uses. Thus, 88 percent of the site would be preserved as open space. The proposed development would preserve approximately 79 percent of the grasslands, 98 percent of the oak/savanna, all of the riparian woodland, and 98 percent of the wetland resources and drainage channels. The project would preserve 161 acres in public open space and an additional 11.1 acres in private open space. The loss of non-native grasslands, oak woodland/savanna and seasonal drainages/wetlands is not expected to adversely affect the persistence or presence of local wildlife. Thus, the proposed project impacts on wildlife habitat would be less than significant.

Mitigation Measure 4.3-7: *None required.*

INTERFERENCE WITH THE MOVEMENT OF NATIVE WILDLIFE

Impact 4.3-8: Project development would convert 12 percent of the site to urban uses. (Less than Significant)

The area proposed for development on the site consists primarily of two habitat types: non-native grassland and developed. Small areas of and oak woodland/savanna (0.85 acre) and wetland and drainage channel (0.022 acre, 243 linear feet of channel) would also be developed. A diverse assemblage of

wildlife species uses these habitats. The movements of these various species on- and off- site vary depending on the species in question.

Assessing the importance of an area as a "movement corridor" depends on differentiating between animals' consistent use patterns. Animal movements generally can be divided into three major behavioral categories:

- Movements within a home range or territory.
- Movements during migration.
- Movements during dispersal.

While no detailed study of animal movements has been conducted for the project site, knowledge of the site, its habitats, and the ecology of the species within the study area permits sufficient predictions about the types of movements occurring in the region and whether proposed development would constitute a significant impact to animal movements. No identified or known "animal corridor" presently exists on the site, thus development is not expected to have a significant impact on corridor-type movements within the region.

Some species may disperse through the site, but most wildlife presently using the site does so as part of its normal movements for foraging, mating, and caring for young. In other words, the site falls within the wildlife's home range or territory. Individuals of the various amphibian, reptile, and small mammal species that presently occupy the site would be displaced or lost from the development areas. Therefore, project buildout would represent a loss of some habitat for the wildlife species that presently use the site, and these impacts are discussed above. The loss of these habitats for wildlife generally would be less than significant because the relatively common wildlife species that would primarily be affected would continue to be abundant in the region after the project implementation and because the project would retain a significant amount of undeveloped area that could be managed for these grassland species.

Project implementation would not fragment the site's woodland or wetland habitats due to the very small area of impact. Wildlife movements would not be interrupted by the loss of these small areas of habitat, and the development would not act as a "substantial" barrier for the wildlife species that presently use these habitats. Therefore, the lowered wildlife value of various on-site habitats would not be a substantial change to wildlife habitat nor would the project substantially alter wildlife movement in the region. This project's impact on the movement of native wildlife would be less than significant.

Mitigation Measure 4.3-7: *None required.*

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4.4 GEOLOGY AND SOILS

ENGEO Incorporated conducted a geotechnical exploration of the Lund Ranch II site in 2011 to characterize subsurface conditions in the area of the planned lots and develop conclusions and recommendations regarding the geotechnical aspects of the project (ENGEO Incorporated, 2011). The exploration incorporates the results of previous investigations by Kleinfelder, Inc. in 1998 and 2000, as well as the previous 2007 investigation conducted by ENGEO. It also addresses a substantially smaller project footprint in response to project changes since 2007. The revised project footprint avoids most of the existing landslides in the vicinity of the project area and the planned grading includes reduced fill depths and graded slope heights. The geotechnical exploration concluded that development of the site is feasible from a geotechnical standpoint, provided that the recommendations in the geotechnical exploration report are implemented. Cotton, Shires & Associates, Inc. conducted peer reviews of the geotechnical reports in 2004 and 2007, and the geotechnical issues identified in those reviews have been reduced and simplified by the reduction in the project area and revised grading plan. The recommendations and remedial measures previously agreed to through the peer review process are incorporated in to the geotechnical assessment for the project. Copies of the geotechnical exploration report, peer review letters and correspondence, and previous geotechnical reports are on file at the Pleasanton Planning Division of the Community Development Department at 200 Old Bernal Avenue in Pleasanton. The following discussion summarizes the information presented in the geotechnical report as supplemented by additional sources of information.

4.4.1 SETTING

TOPOGRAPHY

The approximately 200-acre proposed project site is located in the southern margin of Amador Valley in an area of rounded hills with deep valleys in Pleasanton, California. The site includes three primary drainages, and elevations vary from 420 feet above mean sea level (MSL) at the low and flat area at the west end of the site where the drainages converge to approximately 750 feet MSL on a hilltop in the northeast portion of the project site. Slope angles vary from mostly level (less than 3 degrees) at the west, to very steep (more than 25 degrees) in the hills to the north and east (RJA, 2011).

SITE GEOLOGY

The proposed project site is within the Coast Ranges geomorphic province that is characterized by northwest-southeast trending, sub-parallel ridges and valleys that are bounded by major geologic faults. The geology in this area is dominated by a complex system of strike-slip faults associated with transform motion between the Pacific and North American crustal plates. The San Andreas Fault is the most important among the strike-slip faults.

The site is underlain by bedrock of the Pliocene and Pleistocene age Livermore Gravels consisting of non-marine sedimentary rocks that regionally include sandstone and conglomerate units with occasional

claystone interbeds. At the project site this unit typically consists of sandy cobble conglomerate with interbedded gray conglameratic sandstone, and minor claystone and siltstone. The rock encountered is generally poorly consolidated, friable to moderately strong, and varies from thinly to thickly bedded. The bedrock structures are relatively intact, and the geotechnical investigations did not identify any slickenslides or other indicators of shearing. The average plasticity index of the bedrock is 17.

The Irvington Gravels in the site vicinity have been folded such that the bedrock layers (bedding) have been tilted. Kleinfelder has mapped a west-northwest trending anticline passing through the center of the property and syncline passing along the flow line of the main site canyon and these features have been confirmed with site trenches. The bedding in these areas dips to the northeast and southeast at an inclination of 17 to 55 degrees.

A relatively thin mantle of surficial soil derived from weathering of the underlying materials, typically 2 to 5 feet in thickness, flanks the crests of the ridges and upper slopes. This soil generally consists of silty clay and sandy silt. With a plasticity index of 25, these residual soils are considered moderately expansive.

Deposits of alluvium/colluvium derived from the downslope transport of surficial soils have accumulated in drainages and at the base of slopes. These deposits consist of dark brown silty clay with lesser amounts of sand and gravel. Within the project site, the thickness of these deposits ranges from about 3 to 15 feet. Two samples of alluvium/colluvium yielded plasticity indices of 18 and 22, indicating that these materials are moderately expansive.

Landslide deposits observed on the property include debris flows, earthflows, slump-flow, earth flow complexes and rotational-translational slides. Shallow landslide deposits appear to consist of shallow slump-type failures or earth flow failures that predominantly involve clayey soil with some weathered bedrock material. The depth of movement is typically about 4 to 8 feet below ground surface. The rotational-translational slides are deeper (up to 55 to 70 feet thick) and involve blocks of bedrock that moved downslope. The updated project site avoids all landslides except Landslide 17 and a small portion of Landslide 16.

A small earthen dam (15 to 18-feet deep) and gravel access roads at the site include artificial fill materials. In general, the fill appears to have been derived from local cuts in the bedrock. No records of fill placement have been found, and therefore the fills are considered to be non-engineered.

GROUNDWATER CONDITIONS

Groundwater was encountered only in two test pits conducted for the geotechnical exploration. In one pit, a seep was observed near the base of a landslide, and in the other, groundwater was observed just below the well-developed slide plane of a large landslide. A small spring was also observed in the area of the main drainage, just above where the drainages converge. Previous investigations by Kleinfelder also reported seeps and springs.

SEISMICITY

Regional Active Faults. The San Francisco Bay Area is a region of high seismic activity because of faulting within the San Andreas system. The principal faults of this system include San Gregorio, San Andreas, Hayward-Rodgers Creek, Calaveras, Concord-Green Valley, and Greenville Faults plus the Mt. Diablo Thrust (USGS, 2003). The U.S. Geological Survey (USGS) estimates that there is a 62 percent probability of at least one magnitude 6.7 or greater earthquake occurring within the San Francisco Bay Area before 2031. While a magnitude 6.7 or greater earthquake would most likely occur on one of the seven principal faults, it could also occur on a different known fault or a previously unidentified fault.

No active faults are known to pass through the proposed project site. The known active faults closest to the site that are considered to have the greatest potential to cause strong ground shaking in the vicinity of the project site include the Calaveras Fault located approximately 1.5 miles to the southwest, Hayward Fault located 9 miles to the southwest, the Greenville fault located approximately 11 miles to the northeast, and the Mount Diablo blind thrust fault thought to exist at depth approximately 12 miles to the north. **Table 4.4-1** lists the type of fault, distance from the project site, the maximum moment magnitude, slip rate, and classification for these faults.

TABLE 4.4-1

EARTHQUAKE FAULT ZONE DATA

Fault	Nearest Location (miles)	Fault Type	Maximum Moment Magnitude[1]	Slip Rate[2]	Classification[3]
Calaveras	1.5	Strike slip	6.8	6.0±2.0	B
Hayward	9	Strike slip	6.4	9.0±2.0	A
Greenville	11	Strike slip	6.9	2.0±1.0	B
Mount Diablo	12	Blind thrust	6.2-6.75	2.0±1.0	B

NOTE:
1 The maximum moment magnitude earthquake (M) is the strongest earthquake that is likely to be generated along a fault zone based on empirical relationships among M, surface rupture length, down-dip rupture width, and rupture area. Values provided in Engeo, Incorporated, 2011 and Cao, Tianqing, et. al., 2003.
2 The slip rate is the amount of surface displacement in millimeters provided in Cao, Tianqing, et. al., 2003.
3 A Class A fault has ≥5 centimeters of slip per year and has a maximum moment magnitude ≥7.0. A Class C fault has a slip rate ≤ 2 millimeters/year and a maximum moment magnitude ≤6.5. A Class B fault is one that fits the criteria of neither a Class A or C fault.

SOURCES: ENGEO Incorporated, 2011; Cao, Tianqing, et. al., 2003.

The Verona Fault is located approximately 1,500 feet to the southwest of the site and has been zoned for special studies by the State of California for the Alquist-Priolo Earthquake Fault Zone Act (CDMG 1982). The Verona Fault is mapped as an arcuate, northwest-trending thrust fault that lies nearly parallel to the anticline at the project site. The folding of the Livermore Gravels in the southern Pleasanton area may be related to movement along the Positas/Verona fault system. This thrust fault dips approximately 45 degrees to the northeast, and the fault plane lies approximately 2,000 to 3,000 feet beneath the site.

Historical seismic events with estimated magnitudes of 3.0 to 4.0 have recently been relocated along the Verona Fault. The maximum moment magnitude of the Verona Fault is estimated as 6.1.

California Building Code (CBC). The California Building Code (CBC) contains engineering and design code requirements that address seismic safety for new construction. The CBC design provisions prescribe minimum lateral forces to withstand groundshaking. Seismic design provisions of building code generally prescribe minimum lateral forces applied statically to the structure, combined with the gravity forces of dead and live loads. The prescribed lateral forces are generally considered to be substantially smaller than the actual peak forces that would be associated with a major earthquake. Consequently structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse, but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake. However, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake. Requirements for evaluating expansive soil and specifying foundation design and construction standards to protect against damage from expansive soil are also contained in the CBC.

4.4.2 REGULATORY FRAMEWORK

Alquist-Priolo Earthquake Fault Zoning Act. Surface rupture[1] is the most easily avoided seismic hazard. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with this act, the State Geologist established regulatory zones called “earthquake fault zones” around the surface traces of active faults and published maps showing these zones. Within these zones, buildings for human occupancy cannot be constructed across the surface trace of active faults. Each earthquake fault zone extends approximately 200 to 500 feet on either side of the mapped fault trace, because many active faults are complex and consist of more than one branch. The proposed project would not be subject to the requirements of this act because no earthquake fault zones are located within the proposed project site.

Seismic Hazard Mapping Act. The Seismic Hazard Mapping Act was passed in 1990 following the Loma Prieta earthquake to reduce threats to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards. Under this act, the California Geologic Survey has produced Seismic Hazard Zone Maps delineating areas of potential liquefaction and earthquake-induced landslides in much of the Bay Area, and has plans to produce additional maps for those areas not currently mapped. Cities, counties, and state agencies are directed to use the Seismic Hazard Zone Maps in their land-use planning and permitting processes. The areas of potential liquefaction and earthquake-

[1] Surface rupture occurs when the movement of a fault deep within the earth breaks through to the surface. The rupture almost always follows preexisting faults that are zones of weakness. When the rupture occurs suddenly during an earthquake, structures located along the fault trace can be extensively damaged.

induced landslides are mapped on a broad scale based on regional information and the Seismic Hazards Mapping Act requires that site-specific geotechnical investigations be performed prior to permitting most urban development projects within the hazard zones. Evaluation and mitigation of seismic hazards identified must be conducted in accordance with guidelines established by the California State Mining and Geology Board and Southern California Earthquake Center (CGS, 2008b; SCEC 2002). The project site is located within a zone of potential earthquake-induced landslides (Department of Conservation 2008a) and therefore the requirements of this act would apply to the proposed project.

4.4.3 CONFORMANCE WITH LOCAL PLANS AND POLICIES

Pertinent policies of the Pleasanton General Plan 2005-2025 along with a discussion of the project's consistency with these policies are listed below.

PLEASANTON GENERAL PLAN

General Plan Policies	Project Analysis
Safety Element *Goal 1: Minimize the risks to lives and property, and minimize the potential liability to the City due to seismic activity within the Planning Area.* *Policy 1: Restrict development in areas prone to seismic safety hazards.* *Program 1.1: Comply with the Alquist-Priolo Act and other seismic safety criteria established by the City of Pleasanton.*	The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, no known faults cross the project site, and no fault exposures have been observed on the project site during previous geologic investigations. Therefore, the potential for earthquake-induced surface rupture is considered low and impacts related to fault rupture would be less than significant. (See Impact 4.4-1 for more discussion.)
Policy 5: Investigate the potential for geologic hazards as part of the development review process, and maintain this information for the public record. *Program 5.1: Require site-specific soils studies for all new development prior to the issuance of building permits and prior to the approval of final improvement plans. Where there is risk of geologic hazards, the soil study should address seismic shaking, lateral spreading, differential settlement, lurch cracking, liquefaction, erosion, and expansive soils.* *Program 5.2: Require site-specific geologic and/or geotechnical engineering studies prior to development approval where there is risk of the following geologic hazards: surface fault rupture, bank failures, rock falls, landslides, and for areas with slopes equal to or greater than 20 percent.* *Program 5.3: Require measures to mitigate potential geologic safety hazards during adverse conditions such as saturated soils and groundshaking, and during grading of the site for roads, installation of infrastructure, and creation of building pads. Mitigation measures identified by the site engineering*	In accordance with the CBC, building permit applicants are required to determine the appropriate seismic design criteria for the proposed structures on the basis of soil type, the magnitude of the controlling seismic event, slip rate of the nearest fault, and distance to the nearest active fault. As part of its review, the City of Pleasanton Building and Safety Services Division will review the planned design to confirm compliance with the CBC. Because compliance with the CBC should ensure that the homes constructed under the proposed project do not collapse or cause loss of life in a major earthquake, impacts related to groundshaking would be less than significant. (See Impact 4.4-1 for more discussion.) Site-specific geotechnical investigations of the project site and proposed development plans have been conducted in 1998, 2000, and 2011. In 2004 and 2007, Cotton, Shires & Associates, Inc. conducted peer reviews of the project's geotechnical reports, and the geotechnical issues identified in those reviews have been reduced and simplified by the reduction in the project area and revised grading plan. Design recommendations made in the 2012 ENGEO

General Plan Policies	Project Analysis
studies shall be incorporated into the project design. *Program 5.4: Require technical review and analysis of geotechnical studies by a qualified consulting geotechnical engineer reporting to the City. Incorporate the recommendations of the City's consulting engineer into the project design.* *Program 5.5: Discourage development in areas with a high risk of geologic hazards as identified by a California-licensed engineering geologist representing the City. Allow development only when geologic and soils investigations demonstrate that hazards can be mitigated by accepted engineering and construction techniques. Mitigation measures identified by the investigations shall be incorporated into the project design and subject to approval by the City's reviewing geologist/engineer.*	report have been incorporated into the mitigation measures included in this section and are listed below.
Policy 6: Restrict new development of sites with structures intended for human occupancy in any *landslide prone or unstable area.* *Program 6.1: Prohibit new development of sites with structures intended for human occupancy in any landslide-prone areas unless the landslide risk can be eliminated. Permit development in landslide prone areas only when sites can be shown to be stable during adverse conditions such as saturated soils, groundshaking, and during grading of the site for roads, installation of infrastructure, and creation of building pads. Engineering studies shall demonstrate that structures in landslide prone areas would sustain no more damage due to slope instabilities than damage sustained by a similar building in the Pleasanton Planning Area constructed to current CBC standards and located on soils with a low susceptibility to failure when exposed to moderate groundshaking.* *Program 6.2: Require developers to include drainage, erosion, and landslide mitigation measures to reduce landslide potential.* *Program 6.3: Design irrigation systems to minimize the potential for soil saturation, excessive run-off, and other factors deemed to contribute to slope instability.* *Program 6.4: Design grading plans to minimize earth moving activity and site grading in areas of potential land instability and in areas identified as having "Mostly landslides," as shown on Figure* *5-1.* *Program 6.5: Establish Geologic Hazard Abatement Districts (GHADs) in areas of new development where landslide risks or other geologic hazards are known to exist, to assure that ongoing monitoring and maintenance of slopes and drainage facilities occurs.*	Based on the geotechnical investigations, existing unstable slope deposits exist on much of the slopes in the project area. If dislodged, these materials could move downslope, damaging residences and structures, particularly at Lots 14, 15, and 22 through 25 which would be adjacent to a natural slope and Lots 2 and 25 which would be located downstream of the termination of natural drainage courses Therefore, impacts related to unstable soil deposits are significant. This impact would be reduced to less than significant with implementation of Mitigation Measures 4.4-3a and 4.4-3b which require construction of debris catchment measures at Lots 5, 14, 15, and 22 through 25. (See Impact 4.4-3 for more discussion.) The proposed project would include construction of slopes, which if not properly designed could become unstable, resulting in on- and off-site damage, a significant impact. With implementation of Mitigation Measures 4.4-3c through 4.4-3g, impacts related to slope instability would be reduced to less than significant. These measures require: observation of grading operations by a Geotechnical Engineer and implementation of actions for specific adverse conditions; construction of keyways to retain fill materials; installation of subsurface drainage systems; and provide specifications for retaining walls. In addition, implementation of supplemental slope stabilization measures on constructed slopes (Mitigation Measure 4.4-3h) and compliance with CBC setback requirements would reduce this impact to a less-than-significant level. Proposed development would not occur on slopes over 25 percent.

General Plan Policies	Project Analysis
GHADs should be considered for hillside development such as west of Foothill Road and other areas prone to seismic, landslide, and other geologic hazards.	
Program 6.6: In unstable areas, prohibit major grading where existing slopes are 25 percent or greater.	

CITY OF PLEASANTON MEASURES PP AND QQ

In addition to the City's existing growth management program, the community has determined that future urban development and expansion on the hillsides and ridges of the city should be restricted in order to conserve the remaining open space areas in the community. In November 2008, Pleasanton voters passed *Measure PP*, which adopts, and *Measure QQ*, which reaffirms, specific policies in the General Plan regarding hillside development restrictions. *Measure PP* prohibits placing housing units or structures on slopes of 25 percent or greater or within 100 vertical feet of a ridgeline, does not allow grading to construct residential or commercial structures in those same areas, and also bans subdividing a legal parcel for more than 10 housing units, but exempts development of 10 or fewer housing units from these restrictions. *Measure QQ's* substantive hillside policies involve the re-adoption and reaffirmation of existing policies and a program for the 1996 General Plan to generally: (1) preserve hillside and ridge views of the Pleasanton, Main, and Southeast Hills; (2) study the feasibility of preserving large open-space areas in the Southeast Hills; and (3) protect all large, contiguous areas of Open Space.

4.4.4 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

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

- Expose people or property to potential substantial adverse effects, including risk of loss, injury, or death involving rupture of a known fault; strong seismic shaking; seismic-related ground failure, including liquefaction; or landslides;
- Cause substantial soil erosion or loss of top soil;
- 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 off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, creating substantial risks to life or property; or
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

METHODOLOGY

The geotechnical exploration conducted for the proposed project states that the primary geotechnical considerations for the proposed project include the presence of landslides and unstable colluvial materials on slopes, stability of the proposed cut and fill slopes, and the presence of moderately to highly expansive soils and bedrock, as well as the seismic ground motion considerations that are common to the San Francisco Bay Area as a whole. The impact assessment uses the geotechnical exploration results as the primary basis for evaluating potential geologic and soils effects of the project and presents mitigation measures to reduce these potential impacts to a less than significant level.

SEISMIC HAZARDS

Impact 4.4-1: As is true for the entire region, the project would likely be subject to one or more severe earthquakes and associated seismic hazards during the life of the project. (Less than Significant with Mitigation)

The primary hazards associated with earthquakes include surface rupture and ground shaking. Ground motion induced by earthquakes or aftershocks may also cause secondary ground failures such as liquefaction, ground lurching, lateral spreading, and landslides, typically the result of soil losing its structural integrity. Such effects could result in significant economic loss to the property owners and/or endanger the health and welfare of the homeowners and other persons.

Earthquake Fault Rupture. Fault displacement can cause surface rupture along the surface trace of a fault, causing severe damage to structures or other development located on the fault trace. The chance of an earthquake occurring is considered highest on an active fault, although earthquakes can also happen on faults considered to be inactive or on previously unidentified faults. The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, no known faults cross the project site, and no fault exposures have been observed on the project site during previous geologic investigations. Therefore, the potential for earthquake-induced surface rupture is considered low and impacts related to fault rupture would be less than significant.

Ground Shaking. Ground shaking is the cause of most damage during earthquakes. The degree of shaking that would be expected at a particular site is dependent on the distance from the earthquake source, the magnitude of the earthquake, and the type, thickness, and condition of the geologic materials (bedrock, sediment, soil, fill). In accordance with the CBC, building permit applicants are required to determine the appropriate seismic design criteria for the proposed structures on the basis of soil type, the magnitude of the controlling seismic event, slip rate of the nearest fault, and distance to the nearest active fault. As part of its review, the City of Pleasanton Building and Safety Services Division will review the planned design to confirm compliance with the CBC. Because compliance with the CBC should ensure that the homes constructed under the proposed project do not collapse or cause loss of life in a major earthquake, impacts related to groundshaking would be less than significant.

Seismic-Related Ground Failures. Seismic-related ground failures include liquefaction, ground lurching, and lateral spreading. Liquefaction occurs when a loose saturated cohesionless soil, such as sand, is subjected to a shock and experiences an increase in pore water pressure. The soil loses a substantial amount of strength and may collapse. Potential consequences of liquefaction include the loss of bearing capacity and differential settlement and lateral spreading, and these can cause serious building foundation failures. As presented in the geotechnical exploration, subsurface investigations by Kleinfelder did not encounter loose sands, and subsequent investigations by ENGEO found only dense, cohesive materials in the subsurface. Therefore, the risk of liquefaction is low.

Ground lurching is the rolling motion of the ground surface caused by the energy released during an earthquake and can result in ground cracks. These cracks most commonly occur at the contact between deep alluvium and bedrock. Although the alluvium contacts bedrock at the project site, the geotechnical exploration concludes that the thickness of alluvium is not sufficient to result in ground cracking.

Lateral spreading is a failure within a nearly horizontal soil zone, commonly associated with liquefaction. During lateral spreading, the overlying soil mass moves toward a free face such as a stream bank, or down a gentle slope. As discussed above, the potential for liquefaction of the site soils is low. Therefore, the geotechnical exploration concludes that the risk of lateral spreading is low.

Based on the above discussion, impacts associated with seismic-related ground failures are less than significant.

Landslides. Groundshaking resulting from an earthquake can cause seismically induced landslides on slopes with existing weak soil conditions. Most of the existing landslides within the project area would be avoided except in Lots 34, 35, and 36 which include a small portion of Landslide 16 and Lots 24 and 25 that include portions of Landslide 17. Because the landslide deposits on these lots could become unstable as a result of a seismic event, impacts related to seismically-induced landslides are significant. This impact would be reduced to less than significant with implementation of Mitigation Measures 4.4-1a and 4.4-1b that requires corrective grading to remove landslide debris in accordance with the recommendations of the geotechnical exploration and implement landslide repairs behind Lots 24 and 25.

Mitigation Measure 4.4-1a: *In general, landslide debris shall be removed where present and replaced with engineered fill in accordance with the approved corrective grading plan. More detailed information regarding the location, extent, and depth of the required landslide mitigation shall be depicted on the final project corrective grading plan to be submitted with the final grading plan, subject to review and approval by the City of Pleasanton Building and Safety Services Division.*

Mitigation Measure 4.4-1b: *Landslide repairs shall be conducted on the natural slope behind Lots 24 and 25 (Landslide 17) and the proposed cut and fill slope adjacent to the driveway south of Lots 24 and 25 shall also be regarded. The finished slopes should be graded to approximately re-create the existing slope contours and to conform as much as possible with the adjacent natural slopes.*

Impact Significance After Mitigation: Less than Significant.

EROSION HAZARDS

Impact 4.4-2: Construction of the project on steep slopes could result in soil erosion or the loss of topsoil. (Less than Significant with Mitigation)

Construction of the proposed project would require removal of vegetation during construction and grading on steep slopes in some locations that could increase soil erosion. To reduce erosion hazards, the City will require (as a condition of approval) preparation and implementation of a complete erosion control plan (including interim and permanent erosion control measures, including drainage controls such as energy dissipators). Measures to control post-construction erosion will also be specified in the required Stormwater Pollution and Prevention Plan for the project (see Impact 4.5-2, Hydrology and Water Quality). However, impacts related to soil erosion would remain significant because of the steep slopes in the project area which can be highly susceptible to erosion. To address hillside erosion, the specific erosion control measures specified in Mitigation Measures 4.4-2a through 4.4-2c shall be included in these plans. Impacts related to soil erosion would be less than significant with implementation of these measures which require maintenance of positive slopes during the rainy season, placement of top soil on graded slopes, and revegetation of exposed slopes.

There is a 3 to 6-inch thick topsoil horizon on the existing slopes that will be excavated and loss of this top soil during construction would be significant. This impact would be reduced to less than significant with implementation of Mitigation Measure 4.4-2b requiring identification and preservation of top soil for reuse on graded slopes.

Mitigation Measure 4.4-2a: *In the event of a work stoppage due to rain during construction, the contractor shall construct positive slopes to carry water surface runoff away from steep slopes to storm drainage structures or other areas where erosion can be controlled. In no event shall a completed slope be left standing through the winter season without erosion control features being provided.*

Mitigation Measure 4.4-2b: *The on-site geotechnical engineer shall determine the depth of topsoil in the field during grading. Identified top soil shall be reserved and placed on graded slopes Excess top soil that is not suitable for use as engineered fill may be used in approved open space of landscape areas, if approved by the landscape architect.*

Mitigation Measure 4.4-2c: *All landscaped slopes shall be maintained in a vegetated state after project completion using drought-tolerant vegetation requiring infrequent drip irrigation. No pressurized irrigations shall be placed at or near the tops of graded slopes.*

Impact Significance After Mitigation: Less than Significant.

SLOPE INSTABILITY HAZARDS

Impact 4.4-3: Some residences would be constructed near slopes with colluvial materials. These slopes, and slopes constructed as part of the project, could become unstable and potentially result in on- or off-site damage. (Less than Significant with Mitigation)

Unstable Soil Deposits. Based on the geotechnical investigations, existing unstable slope deposits exist on much of the slopes in the project area. If dislodged, these materials could move downslope, damaging residences and structures, particularly at Lots 14, 15, and 22 through 25 which would be adjacent to a natural slope and Lots 2 and 25 which would be located downstream of the termination of natural drainage courses. If saturated and dislodged, these materials could move downslope as mudflows. Therefore, impacts related to unstable soil deposits are significant. This impact would be reduced to less than significant with implementation of Mitigation Measures 4.4-3a and 4.4-3b which require construction of debris catchment measures at Lots 5, 14, 15, and 22 through 25.

Constructed Slopes. The proposed project would include construction of slopes which if not properly designed could become unstable, resulting in on- and off-site damage, a significant impact. **Figure 4.4-1** presents the proposed project's Preliminary Corrective Grading Plan to address existing slope instability conditions on the site.

Factors that contribute to slope instability include the height of the slope, degree of slope, degree of saturation, and compaction of the materials used for construction of the slopes. In accordance with the geotechnical framework report, the maximum slope height would be dictated by the slope gradient in accordance with **Table 4.4-2**. For slopes within these parameters, impacts related to slope instability would be less than significant with implementation of Mitigation Measures 4.4-3c through 4.4-3g which require observation of grading operations by a Geotechnical Engineer and implementation of actions for specific adverse conditions; construction of keyways to retain fill materials; installation of subsurface drainage systems; and provide specifications for retaining walls. Where steeper slopes are desired, implementation of Mitigation Measure 4.4-3h requiring implementation of supplemental slope stabilization measures and compliance with CBC setback requirements would be necessary to reduce this impact to a less-than-significant level.

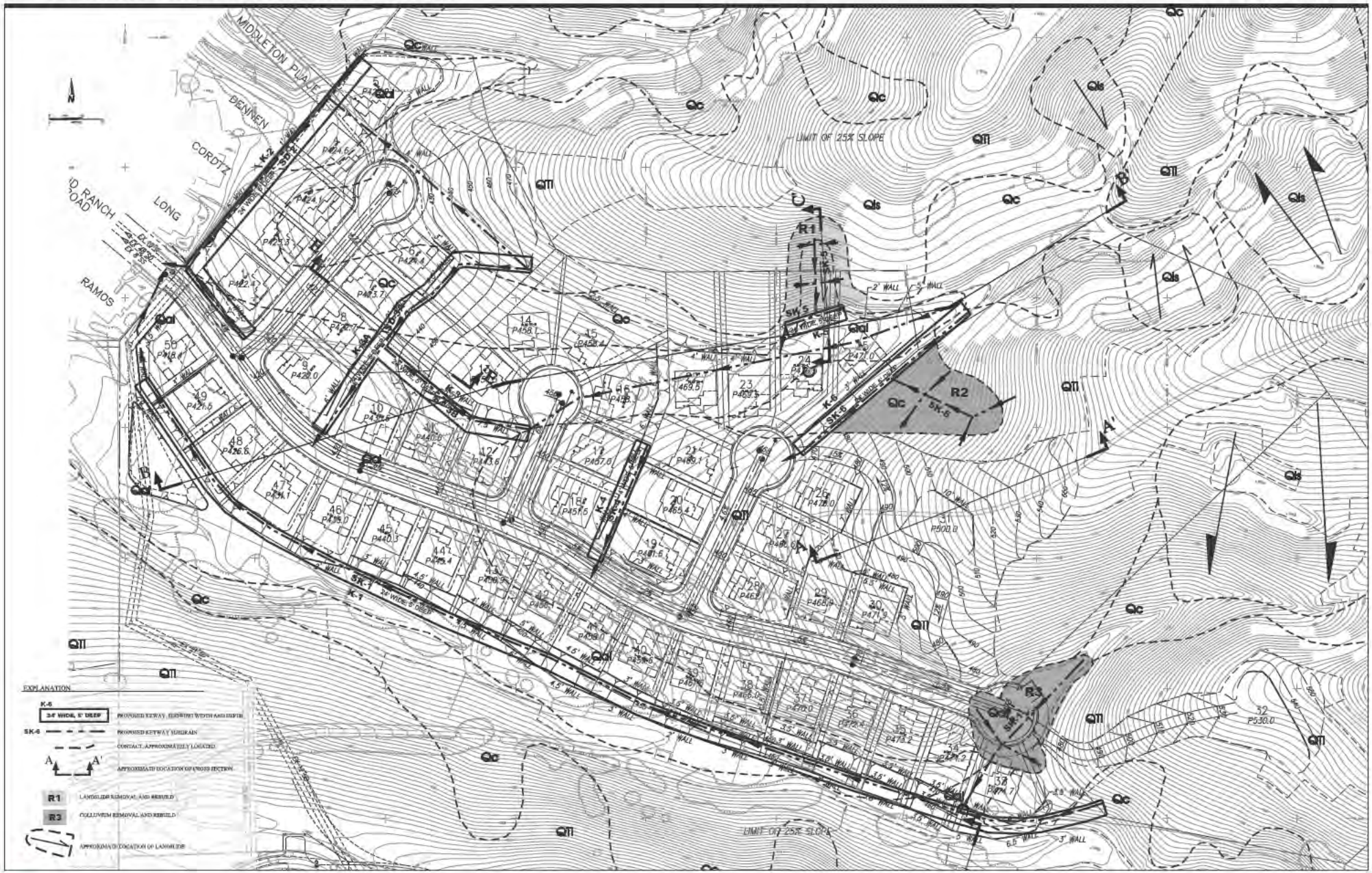
TABLE 4.4-2

MAXIMUM SLOPE HEIGHTS

Recommended Slope Height (horizontal:vertical)	Maximum Slope Height (feet)
2:1	<8
2.5:1	8-30
3:1	>30

Preliminary Corrective Grading Plan

Figure 4.4-1



Lund Ranch II

Source: ENGEO (February 2013)

Mitigation Measure 4.4-3a: *Debris catchment walls shall be constructed along the rear sides of the building pads on Lots 14, 15, and 22 through 25 where they border adjacent slopes. The walls shall be a minimum of 5 feet high and designed in accordance with the recommendations of the geotechnical exploration in regards to retaining walls. Walls may not be required if pad grading provides sufficient space via rear yard slopes or retaining walls. The final design of the walls or catchment area shall be reviewed by ENGEO when the detailed project plans are prepared. Proper access to the catchment areas shall be provided and all debris catchment walls or designated catchment areas shall be periodically maintained by removing and disposing of accumulated slope detritus.*

Mitigation Measure 4.4-3b: *Debris catchment measures shall be constructed along Lots 5 and 25 which are located at the mouths of existing drainage courses. The catchment measures shall include a minimum* 5-foot berm placed across the mouth of the drainage with clog-resistant surface drainage inlets provided. The final dimensions, placement, and design shall be determined in the detailed project plans.

Mitigation Measure 4.4-3c: *The final corrective grading plans shall show detailed locations of keyways, subdrains, debris benches, and subexcavation areas. The sequence of grading issues, such as placement of various cut materials in specific locations, should also be evaluated during review of the final 40-scale grading plans.*

Mitigation Measure 4.4-3d: *The Geotechnical Engineer or qualified representative should be present during all phases of grading operations to observe demolition, site preparation, grading operations, and subdrain placement. After grading operations commence, geologic observations of cut areas should be made at frequent intervals so that revised geologic recommendations can be incorporated into updated grading plans as grading proceeds. During slope grading, all cut slopes should be viewed by the Engineering Geologist for adverse bedding, seepage, or bedrock conditions that may affect slope stability. In the event that adverse conditions are identified, overexcavation and reconstruction of the slopes may be required. Track rolling to compact slope faces is not sufficient. All fill slopes should be overbuilt at least two feet and cut back to design grades.*

Mitigation Measure 4.4-3e: *Keyways equipped with a subsurface drainage system shall be constructed. Each keyway shall be keyed into firm natural materials unaffected by shrinkage cracks. The keyway shall be filled with materials derived from the Livermore Gravels compacted to 95 percent relative compaction for non-expansive materials and 90 percent relative compaction for expansive materials. The required depth of the keyways shall be determined in the field by the geotechnical engineer during grading. Fill above the keyways shall be benched into firm, competent soil or bedrock and drained as appropriate. Unless otherwise recommended by the Geotechnical Engineer, benches shall be constructed at vertical intervals of not less than five feet.*

Mitigation Measure 4.4-3f: *Subsurface drainage systems should be installed in all key ways, swales or natural drainage areas, and landslide removal areas in accordance with the recommendations of the*

geotechnical exploration. Depending on the actual conditions encountered during grading, similar subsurface drainage facilities may be recommended within existing stock ponds, springs, low-lying areas, or at lots where wet conditions are encountered during excavation. In addition, new sources of seepage may be created by a combination of modified topography, future irrigation practices, and potential utility leakage. If discovered, these conditions should be brought to the attention of the Geotechnical Engineer so that remedial actions may be initiated, if necessary.

Mitigation Measure 4.4-3g: *Structural retaining walls shall be constructed in accordance with the recommendations of the geotechnical exploration and provided with drainage facilities to prevent the buildup of hydrostatic pressures behind the walls.*

Mitigation Measure 4.4-3h: *Where steeper slopes greater than 3:1 are desired, supplemental slope stabilization measures such as geogrid enforcement and/or the use of select fill shall be employed. Drainage benches shall also be provided at a 30-foot minimum intervals, and construction shall follow the structural setbacks of the CBC. Accordingly, structures shall be: (1) set back from the top of the slope by a minimum of one-third of the slope height or a maximum of 40 feet; and (2) set back from the bottom of the slope by a minimum of one-half of the slope height or a maximum of 15 feet. Alternative setbacks may be addressed on a per lot and foundation design basis.*

Impact Significance After Mitigation: Less than Significant.

SOIL CONSTRAINTS

Impact 4.4-4: Expansive soils and bedrock materials are present within project boundaries and construction on expansive soil could cause foundation and other structural failures, particularly at lots traversed by a cut/fill transition. (Less than Significant with Mitigation)

Expansive soils shrink and swell as a result of seasonal fluctuations in moisture content. The can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Building damage due to volume changes associated with expansive soils can be reduced through proper foundation design.

As discussed in the Setting, the soils and colluvium/alluvium on the site locally have moderate to high plasticities and expansion potentials with the plasticity index of soil samples analyzed for the geotechnical investigations ranging from 8 to 25, therefore impacts related to expansive soil are significant. This impact would be reduced to less than significant with implementation of Mitigation Measure 4.4-4 requiring a uniform thickness of 3 feet of engineered fill within the entire foundation area.

Mitigation Measure 4.4-4: *Cut lots shall be overexcavated 2 feet, scarified 12 inches, and recompacted so as to provide a zone of at least 3 feet of reworked and compacted soil. Additionally, cut/fill transition lots should be overexcavated so as to provide a minimum of 3 feet of a uniform thickness of engineered*

fill within the entire foundation area. In addition, exposed soils shall be kept moist by watering for several days before placement of concrete.

Impact Significance After Mitigation: Less than Significant.

Impact 4.4-5: Compressible soils and non-engineered fills are present within project boundaries and construction on these soils could cause foundation and other structural failures. (Less than Significant with Mitigation)

Locally compressible deposits of colluvium occur in existing ravines, creeks, stock ponds, swales and other areas. In addition, there are local deposits of undocumented fills that are not evenly compacted and soil used to backfill test pits excavated for the geotechnical investigations has not been compacted. Placement of fill and construction on these soils could cause foundation and other structural failures because of compression and differential settlement, a significant impact. This impact would be reduced to less than significant with implementation of Mitigation Measure 4.4-5 requiring removal of existing non-engineered fill, vegetation, and soft or compressible materials in areas to be graded.

Mitigation Measure 4.4-5: *All existing non-engineered fill, vegetation, and soft or compressible soils and colluvium in existing canyons, creeks, stock ponds, drainages, and other areas to be graded shall be removed as necessary for project requirements. The depth of removal shall be determined by the geotechnical engineer in the field at the time of grading. Evaluation of unsuitable deposits shall be performed during grading by sampling and laboratory analysis.*

Impact Significance After Mitigation: Less than Significant.

Impact 4.4-6: Fill placed during construction could settle following construction and cause structural damage. (Less than Significant with Mitigation)

The proposed project includes fills of up to 25 feet, and the final depth of fill could reach 30 feet where additional excavation is required for removal of colluvium and construction of keyways. Settlement of this fill could cause damage to structures, particularly at lots with a differential fill thickness of greater than 20 feet, a significant impact. However, implementation of Mitigation Measures 4.4-6a through 4.4-6d would reduce this impact to less than significant by placing restrictions on the differential fill thickness across the building site, requiring conditioning of the areas to receive fill, placing restrictions on the organic content of the fill materials, and appropriate compaction of the fill. With implementation of these measures, post-construction fill settlement would be expected to be less than 1 inch, well within the tolerances of the proposed improvements.

Mitigation Measure 4.4-6a: *The differential fill thickness across a lot should be less than 15 feet. Lots requiring local subexcavation of soil and replacement with engineered fill to achieve this limit should be identified on the final corrective action grading plan.*

Mitigation Measure 4.4-6b: *Following clearing and stripping, all areas to receive fill, slabs-on-grade, or pavement should be scarified to a depth of at least 12 inches, moisture conditioned, and compacted to the requirements for engineered fill.*

Mitigation Measure 4.4-6c: *Site soils and bedrock used for engineered fill shall have organic content of less than 3 percent. Rocks greater than 6-inches in size shall not be placed at depths greater than 10 feet from finished grade. Rocks greater than 18 inches in size should be broken down such that their maximum dimension is less than 12 to 18-inches, or placed in non-structural fills below slopes or under one of the proposed detention basins. Alternatively, these rocks could be used in landscaping and/or creek restoration projects.*

Mitigation Measure 4.4-6d: *Engineered fills shall be compacted to the specifications stated in the geotechnical framework. Over compaction of expansive materials (with a plasticity index of greater than 12) should be avoided within the upper five feet of building areas. All fills shall be placed in lifts not exceeding 12 inches, or the depth of penetration of the compaction equipment used, whichever is less.*

Impact Significance After Mitigation: Less than Significant.

REFERENCES – GEOLOGY, SOILS, AND SEISMICITY

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4.5 HYDROLOGY AND WATER QUALITY

4.5.1 ENVIRONMENTAL SETTING

CLIMATE

According to the Climatic Atlas of the United States published by the U.S. Department of Congress, the Pleasanton area has a climate characterized by wet winters and dry summers (ENGEO, 2011). The average annual rainfall in the area is approximately 16 inches, and the majority of this rainfall generally occurs during the months of September through April with very little rainfall during the remaining months of the year.

SURFACE WATER AND DRAINAGE

The approximately 200-acre project site is located in south Pleasanton, and is part of the Livermore-Amador Valley hydrologic region. The site includes three primary drainages, and elevations vary from 420 feet above mean sea level (MSL) at the low and flat area at the west end of the site where the drainages converge to approximately 750 feet MSL on a hilltop in the northeast portion of the project site (RJA, 2011). Slope angles vary from mostly level (less than 3 degrees) at the west, to very steep (more than 25 degrees) in the hills to the north and east. Surface water currently drains as concentrated flow within the natural drainage courses, and the creek system within the project area is ephemeral, meaning that the creeks flow only briefly after precipitation events (ENGEO, 2011). Stormwater runoff from the site enters the three existing drainages that carry flow off-site.

FLOOD HAZARDS

The project site is not located within a 100-year flood zone mapped by the Federal Emergency Management Agency (ABAG, 2012) or within a dam failure inundation area (ABAG, 1995; City of Pleasanton, 2009). With a minimum elevation of 420 feet MSL and located more than 15 miles inland from San Francisco Bay, the project site would not be subject to potential inundation by coastal hazards, such as tsunamis, extreme high tides, or sea level rise.

GROUNDWATER

The project site is located in the Livermore-Amador Valley Groundwater Basin, identified by the Department of Water Resources as Basin No. 2-10 (Jones & Stokes, 2005). The Alameda County Zone 7 Water Agency manages groundwater resources in the basin and provides for the control and conservation of waters for beneficial future uses, the conjunctive use of groundwater and surface water, the importation of additional surface water, and the use of the groundwater basin to provide water storage for imported surface water used during drought periods. The groundwater basin is divided into two major parts based on importance. The Main Basin includes an Upper Aquifer Zone and a Lower Aquifer Zone. This basin covers 17,000 acres that contain the highest yielding aquifers and best water quality within the Livermore-Amador Valley Groundwater Basin. The less important area is called the fringe basin. The

project site is located in the Bernal sub-basin, outside of the main groundwater basin in the fringe basin. The majority of the connectivity between the fringe and Main Basins is through the Upper Aquifer Zone. Subsurface inflow from the Lower Aquifer Zone is considered negligible. Although the City of Pleasanton, Alameda County, San Francisco Water Department, California Water Supply Company, and Zone 7 Water Agency all operate water supply wells in the Livermore-Amador Valley Groundwater Basin, all of the wells are located in the main groundwater basin, and not in the fringe basin (City of Pleasanton, 2009).

Groundwater was generally encountered at depths between 10 and 15 feet below ground surface during previous geotechnical investigations at the project site (ENGEO, 2011). At one location, groundwater was encountered as shallow as 3 feet. Groundwater levels can fluctuate seasonally and from year to year because of variations in precipitation, temperature, irrigation, and other factors.

4.5.2 REGULATORY FRAMEWORK

MUNICIPAL REGIONAL STORMWATER NPDES PERMIT

Stormwater in Alameda County is managed in accordance with the Municipal Regional Stormwater NPDES permit from the San Francisco Bay RWQCB (Permit No. R2-2009-0074 adopted on October 14, 2009 and revised on November 28, 2011). This permit regulates discharges from all municipal separate storm sewer systems in Alameda and Contra Costa Counties, including those in the city of Pleasanton.

Provision C.3.b.ii (2) to the municipal stormwater permit, requires new development and redevelopment projects that create or replace 5,000 square feet or more of impervious surfaces to incorporate treatment measures, source control measures, and site design features to reduce the pollutant load in stormwater discharges and to manage run-off flows. Provision C.3.g of the permit requires that certain new development projects manage increases in stormwater runoff flow and volume so that the post-project runoff does not exceed the estimated pre-project runoff rates and durations.

Provision C.6 of the municipal stormwater permit requires municipalities subject to the permit to adopt a construction site inspection and control program at all construction sites. Municipalities must review construction-site erosion control plans for consistency with local requirements, including the appropriateness and adequacy of proposed BMPs. They also must verify that site operators/developers have complied with the Construction General Stormwater Permit before issuing the grading permit for a project. The municipalities also are required to conduct inspections to determine compliance with local grading and stormwater requirements.

The Alameda Countywide Clean Water Program is the local entity within Alameda County responsible for implementing compliance with the Municipal Regional Stormwater NPDES permit. It comprises Alameda County, 13 incorporated cities (including Pleasanton), the Alameda County Flood Control and Water Conservation District, and the Zone 7 Water Agency.

CONSTRUCTION GENERAL STORMWATER PERMIT (SWRCB ORDER NO. 2009-09-DWQ)

For stormwater discharges associated with construction activity in the state of California, the SWRCB has adopted the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ (Construction General Stormwater Permit) in order to avoid and minimize water quality impacts attributable to such activities. The Construction General Stormwater Permit became effective on July 1, 2010 and expires on September 2, 2014; it applies to all projects where construction activity disturbs one or more acres of soil. Construction activities subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation. The Construction General Stormwater Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which includes and specifies best management practices (BMPs) designed to prevent pollutants from contacting stormwater and keep all products of erosion and stormwater pollutants from moving offsite into receiving waters. The permit includes a risk-based permitting approach, dependent upon the level of sediment risk imparted by a project and the sensitivity of the receiving water.

4.5.3 CONFORMANCE WITH LOCAL PLANS AND POLICIES

CITY OF PLEASANTON GENERAL PLAN

General Plan Policies	Project Analysis
Public Facilities and Community Programs Element	
Policy 8: Ensure an adequate storm drainage system to serve existing and future development. *Program 8.1: Require new development to pay its fair share of the storm drainage system improvement costs.*	As a condition of project approval, the project sponsor will be required to pay its air share of storm drainage system improvement costs and flood control improvement costs (per the Zone 7 Master Plan).
Policy 9: Ensure a sufficient flood control system to serve existing and future development. *Program 9.1: Require new development to pay its fair share of the flood control improvement costs included in Zone 7's Master Plan.* *Program 9.2: Design flood water detention basins and arroyos to allow for public amenities, recreation, natural habitat, and agriculture, where feasible.*	As indicated in Impact 4.5-4, stormwater runoff from the developed portion of the project site would be collected and routed to an extended detention basin with biofiltration soil where it would be treated before being discharged to the existing storm drain system to the west. With this design, project development would have a less than significant impact on the capacity of the existing storm drain system. In addition, project plans provide for the location of the detention basin adjoining public open space, with access to natural areas along the creek and to trails that would serve the site's extensive open space to be made available to the public.
Public Safety Element	
Policy 15: Prohibit all development within the 100-year flood zone unless mitigation measures that meet Federal Insurance Administration criteria are provided.	The project site is not located within a 100-year flood zone mapped by the Federal Emergency Management Agency.

4.5.4 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based on Appendix G of the CEQA Guidelines, an impact is considered significant if the proposed project would result in:

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

Based on project characteristics and the water resources in the area, no impacts are anticipated with respect to the following topics:

- *Placement of Housing or Other Structures Within a 100-Year Flood Hazard Area.* The project does include construction of housing, but the project site is not located within a 100-year flood hazard area, therefore there would be no impact related to placement of housing or other structures within a 100-year flood hazard zone.
- *Flooding as a Result of Dam or Levee Failure.* The only major dam or levee in the vicinity of the proposed project is the Del Valle Dam located approximately 8 miles to the southeast. As discussed in the Setting, the project site is not located within the inundation area for this dam

(ABAG, 1995; City of Pleasanton, 2009). Therefore there is no impact related to loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

- *Inundation by Seiche, Tsunami, or Mudflow*. The project site is located inland and, therefore, there would be no risk associated with tsunamis which are large sea waves. Seiches are waves caused by large-scale, short-duration phenomena that result from the oscillation of confined bodies of water (such as reservoirs and lakes) that may damage low-lying adjacent areas. The project site would not be subject to the a seiche because the nearest large water body is Lake Boris located approximately two miles to the northeast, and separated from the project site by hilly terrain. In summary, there would be no impact that would expose people or structures at the Planning Area to a significant risk of loss, injury, or death involving seiche, or tsunami. Risks associated with landslide-induced mudflows are discussed in Section 4.4, Geology and Soils, Impact 4.4-3.

GROUNDWATER

Impact 4.5-1: The proposed project could incrementally increase impervious surfaces and redirect surface water runoff that would otherwise recharge the underlying groundwater system, but would not lead to substantial groundwater depletion. (Less than Significant)

The project would increase impervious surfaces through the development of 50 single-family lots arranged along roads that follow the main drainage (with lot sizes varying from cluster lots to custom lots over an acre in size) and interior subdivision roadways. Approximately 80 percent of the site would be retained as open space, preserving the majority of the natural creek system crossing the site and much of the groundwater infiltration that would occur under existing conditions. However, run-on from the open space to the developed area of the project site would be directed towards an existing storm drain system at the west end of the project site or to an existing creek drainage via concrete v-ditches and/or storm drains.

An increase in impervious surfaces and redirection of stormwater flows could reduce infiltration to the underlying groundwater, thereby reducing recharge to the aquifer and potentially contributing to groundwater depletion. However, as discussed in the Setting, the project site is located in the fringe basin of the Livermore-Amador Valley Groundwater Basin, which is not an important groundwater producing basin. Further, as discussed in Impact 4.5-3, 73 percent of the stormwater from the developed area would be infiltrated to the groundwater through the bottom of the extended detention basin with biofiltration soil that is planned as part of the project. Therefore, impacts related to groundwater depletion would be less than significant.

Mitigation Measure 4.5-1: *None required.*

SURFACE WATER AND DRAINAGE

Impact 4.5-2: The proposed project would involve grading that could cause erosion and associated sedimentation of surface water features, and a release of hazardous materials could occur during construction, potentially resulting in water quality degradation. (Less than Significant with Mitigation)

The proposed project includes construction activities for the development of 50 single-family lots and associated drainage improvements and infrastructure. Excavation and stockpiling of soil would be required as well as placement of imported fills. Construction activities would also require the use of hazardous materials. Without proper controls, these activities could induce erosion, and related sedimentation to the existing drainages at the site. A release of hazardous materials could also affect water quality in the drainages. Because more than one acre of land would be disturbed and therefore the project would be required to comply with the Construction General Stormwater Permit. In accordance with this permit, the project sponsor would submit the required notices, develop a SWPPP, and implement site-specific BMPs in accordance with the approved SWPPP to control and reduce discharges of sediments and pollutants associated with construction stormwater runoff into any receiving waters. However, impacts related to soil erosion would remain significant because of the steep slopes in the project area, which can be highly susceptible to erosion. To address hillside erosion, the specific erosion control measures specified in Mitigation Measures 4.4-2a through 4.4-2c shall be included in these plans. Impacts related to soil erosion would be less than significant with implementation of these measures which require maintenance of positive slopes during the rainy season, placement of top soil on graded slopes, and revegetation of exposed slopes.

Mitigation Measure 4.5-2: *See Mitigation Measures 4.4-2a through 4.4-2c in Section 4.4, Geology and Soils.*

Impact Significance After Mitigation: Less than Significant.

Impact 4.5-3: The proposed project would involve grading and construction of new impervious surfaces, but would not alter the existing drainage patterns in a manner that would increase erosion or flooding on or off-site. (Less than Significant)

Construction of new impervious surfaces within the developed portion of the project site and redirection of stormwater flows from the undeveloped areas, discussed above in Impact 4.5-1, could increase the rate, duration, and quantity of stormwater runoff, potentially causing erosion and related water quality effects or flooding in the receiving water. To address these effects, Provision C.3.g of the Municipal Regional Stormwater NPDES Permit (Order R2-2009-0074) requires that certain new development projects manage increases in stormwater runoff flow and volume so that the post-project runoff does not exceed the estimated pre-project runoff rates and durations.

The proposed project site is located within a zone of special consideration for San Lorenzo and Alameda Creeks (Clean Water Program, 2011), and therefore the hydromodification requirements of Provision C.3.g would apply. Specifically, stormwater runoff must be controlled such that post-project stormwater discharge rates and durations match pre-project discharge rates and durations from 10 percent of the pre-project 2-year peak flow up to the pre-project 10-year peak flow. Alameda County has adopted the Bay Area Hydrology Model (BAHM) for modeling runoff from development sites, sizing flow duration control structures, and determining overall compliance of such structures and other hydromodification control structures in controlling runoff from the project sites.

To meet C.3.g requirements related to stormwater runoff rates and duration, stormwater runoff from the developed portion of the project site would be collected and routed to an extended detention basin with biofiltration soil where it would be treated before being discharged to the existing storm drain system to the west (ENGEO, 2011). Modeling using the BAHM indicates that the stormwater runoff rates and durations from the developed area would meet the limitations imposed by Provision C.3.g of the Municipal Stormwater Permit. The modeling also indicates that roughly 73 percent of the stormwater would be infiltrated through the basin bottom and the remaining 27 percent would exit via the water quality orifices of the basin, or through the top of the riser pipe. Stormwater from the surrounding open areas would be conveyed in storm drain piping that discharges to the existing storm drain system at the same location or to a stream channel. All flows from the open areas would bypass the basin. Modeling using the BAHM indicates that the stormwater runoff rates and durations from the developed area would meet the limitations imposed by Provision C.3.g.

Because post-project runoff would not exceed the estimated pre-project runoff rates and durations in accordance with the C.3.g requirements of the Municipal Regional Stormwater NPDES Permit, runoff from the new impervious surfaces and any graded areas would not result in substantial off-site erosion or flooding. Therefore, impacts related to the alteration of drainage patterns would be less than significant.

Mitigation Measure 4.5-3: *None required.*

Impact Significance After Mitigation: Less than Significant.

Impact 4.5-4: The proposed project would incrementally increase surface runoff from additional impervious surfaces and provide and additional source of polluted runoff, but would not exceed the capacity of the storm drain system. (Less than Significant with Mitigation)

As discussed in Impact 4.5-2, stormwater runoff from the developed portion of the project site would be collected and routed to an extended detention basin with biofiltration soil where it would be treated before being discharged to the existing storm drain system to the west (ENGEO, 2011). Modeling using the BAHM indicates that roughly 73 percent of the stormwater would be infiltrated through the basin bottom and the remaining 27 percent would exit via the water quality orifices of the basin, or through the top of the riser pipe. Stormwater flows from the detention basin would be discharged to the existing 49-inch diameter storm drain at Lund Ranch Road. Stormwater from the surrounding open areas would be conveyed in storm drain piping that would discharge to the existing storm drain system at the same location or to a stream channel. All flows from the open areas would bypass the basin.

The storm drain system at Lund Ranch Road has a capacity of 85 cubic feet per second at the proposed point of connection and 123 cfs downstream of the confluence with the existing creek discharge. Using the proposed post-construction stormwater management features, the project would discharge 49 cfs to the storm drain system at the proposed point of connection. But downstream discharges would be reduced from 87 cfs to 39 cfs because some open areas that currently drain to the storm drain system would be rerouted to the connection at Lund Ranch Road. Thus, the combined project-related discharges at the

point of connection and downstream of the creek confluence would be 88 cfs which is consistent with existing conditions and within the capacity of the storm drain system. Therefore, impacts associated with exceeding the capacity of the storm drain system are less than significant.

In addition to reducing post-construction stormwater runoff rates and durations, the extended detention basin would be lined with a sand filter with a planted media system to remove common urban pollutants. Two vegetated swales would also be constructed at the outfall location to provide pollutant removal for the immediately adjacent areas that would not drain to the detention basin. The City of Pleasanton would also be required to implement source control measures such as street sweeping and trash removal in to remove certain stormwater pollutants before they reach the basin. However, residential land uses can present additional sources of stormwater pollutants such as hazardous materials commonly used in household applications; spilled oil, fuel, and other fluids such as antifreeze from vehicles; construction debris; landscape chemicals such as pesticides, herbicides, and copper-based algaecides; used packing materials; paint products; trash and litter; excess irrigation; and car washing. Because the proposed extended detention basin and vegetated swales would not remove these pollutants, impacts related to providing an additional source of stormwater pollutants are significant. This impact would be reduced to a less-than-significant level with implementation of Mitigation Measure 4.5-4 requiring the project sponsor to educate buyers about the potential water quality effects of stormwater pollution and effective measures to prevent the generation of stormwater pollutants.

Mitigation Measure 4.5-4: *The project sponsor, working with the Alameda Countywide Clean Water Program, shall implement a program to educate buyers about the potential water quality effects of stormwater pollution and effective measures to prevent the generation of stormwater pollutants from residential land uses. At a minimum, the program shall address stormwater pollutants such as hazardous materials commonly used in household applications; spilled oil, fuel, and other fluids such as antifreeze from vehicles; construction debris; landscape chemicals such as pesticides, herbicides, and copper-based algaecides; used packing materials; paint products; trash and litter; excess irrigation; and car washing. Educational materials developed under this program shall identify alternative products that are more environmentally friendly as well as methods to control stormwater pollutants at their source. The materials shall also be consistent with materials available from the Alameda Countywide Clean Water Program and shall be provided to the buyer at the time of purchase.*

Impact Significance After Mitigation: Less than Significant.

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4.6 TRAFFIC AND CIRCULATION

This chapter summarizes the findings of traffic studies that were completed for the proposed project by Dowling Associates, Inc., TJKM Transportation Consultants, and Fehr & Peers. The first traffic analysis was prepared by Dowling Associates, Inc. in August 2006. Subsequent to completion of this report, the Pleasanton General Plan was updated (City of Pleasanton, 2009), the cumulative development scenario changed, and the proposed project was reduced in size. To reflect these new conditions, TJKM completed a new traffic analysis in September 2011. This report was peer reviewed by Fehr & Peers in February 2012, and then Fehr & Peers updated the TJKM report with an expanded impact analysis in June 2012. The June 2012 report addressed some access alternatives, but Fehr & Peers then further expanded their alternatives analysis in August 2012. The earlier 2006 Dowling, 2011 TJKM, and February 2012 Fehr & Peers reports are on file at the Pleasanton Planning Division of the Community Development Department at 200 Old Bernal Avenue in Pleasanton. The June and August 2012 Fehr & Peers reports are included in **Appendix C**. This section summarizes the results of the Fehr & Peers analyses related to the proposed project's sole access connection on Lund Ranch Road (Fehr & Peers, 2012a). The results of Fehr & Peers' analysis of alternative access options are included in Chapter 5, Alternatives.

4.6.1 ENVIRONMENTAL SETTING

ROADWAY NETWORK

Figure 4.6-1 presents a map of the roadway system in the vicinity of the site. Regional access to the project site is provided by the Interstate 680 freeway (I-680), Sunol Boulevard, and Bernal Avenue. Local access to the site is provided by Independence Drive, Junipero Street, and Lund Ranch Road. A discussion of these roadway facilities is provided below:

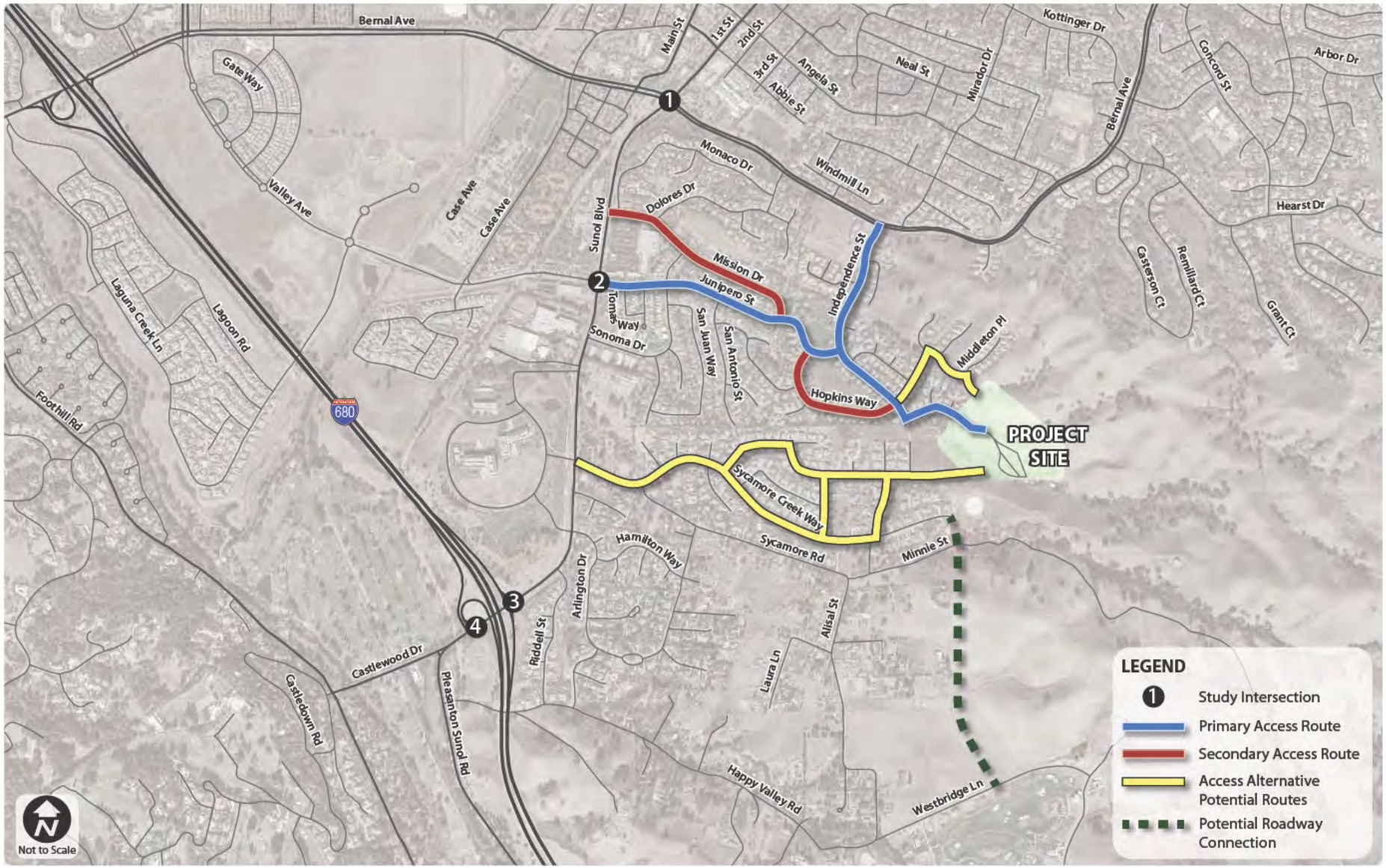
Sunol Boulevard is a three-lane arterial south of the Sycamore Road. It is a two-lane roadway with raised median and a speed limit of 35-40 mph between Sycamore Road and Bernal Avenue. North of Bernal Avenue it is a three-lane roadway with a two-way turn lane and a speed limit of 25 mph.

Bernal Avenue is a two-lane arterial with raised median and a speed limit of 35 mph south of Independence Avenue. There is no median north of Independence Avenue.

Junipero Street is a two-lane local collector street that provides access from the project site to Sunol Boulevard. The speed limit on this road is 25 mph.

Independence Drive is a north-south roadway located northwest of the project site. It is a three-lane roadway with a two-way left-turn lane and a speed limit of 30 mph north of Independence Court. South of Independence Court, it is a two-lane roadway with a speed limit of 25 mph. This roadway provides access from the project site to Bernal Avenue.

Lund Ranch Road is a two-lane residential street with a speed limit of 25 mph, and it is the only road that is proposed to provide project residents with access to Junipero Street and Independence Drive.



Source: Fehr & Peers (February 2013)

EXISTING TRANSIT SERVICE

Transit service in the project vicinity is provided by Wheels, which is operated by the Livermore Amador Valley Transit Authority (LAVTA). Along Sunol Boulevard and Bernal Avenue, there is one fixed route (Route 8) that provides access to BART and downtown Pleasanton and one additional route serving school trips (Route 601). Weekday and weekend service headways on Route 8 are approximately 60 minutes throughout the day with 30-minute headways during weekday peak periods. Route 601 provides bus access to and from Pleasanton Middle School. Route 602 provides bus access to and from Village High School. The closest bus stops to the project site are located at the Sunol Boulevard/Mission Drive intersection for Routes 8 and 602 (approximately 1 mile northwest of the site) and Bernal Avenue/Independence Drive intersection (approximately 2/3 mile north of the site) for Route 601.

EXISTING PEDESTRIAN AND BICYCLE FACILITIES

Pedestrian facilities comprise sidewalks, crosswalks, and pedestrian signals. Sidewalks are provided on most streets in the vicinity of the project site. There are no sidewalks on Sycamore Road. There is an unpaved path located along Sycamore Creek Way (across Sycamore Creek). Crosswalks and pedestrian signals are provided at all study intersections.

Bicycle facilities comprise bike paths, bike lanes, and bike routes. Bike paths are paved trails that are separated from the roadways. Bike lanes are lanes on roadways designated for use by bicycles by striping, pavement legends, and signs. Bike routes are roadways that are designated for bicycle use with signs. Bike lanes are provided on Bernal Road, Sunol Boulevard, Sycamore Road (continuing on Sycamore Creek Way), and Independence Drive (north of Independence court).

EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Daily roadway segments conditions in the project vicinity were evaluated and existing daily roadway segments volumes are presented in **Table 4.6-1** and volume locations are indicated in **Figure 4.6-2**. As indicated in this table, there are several existing neighborhood streets in the project vicinity that could be subject to project-related traffic increases. Primary access streets are Independence Drive, Junipero Street, and Lund Ranch Road, while Mission Drive and Hopkins Way provide secondary access.

EXISTING LEVEL OF SERVICE OPERATION

Level of Service Definitions. The operations of roadway facilities are described with the term “level of service” (LOS). LOS is a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels of service are defined ranging from LOS A (i.e., best operating conditions) to LOS F (worst operating conditions). LOS E corresponds to operations “at capacity.” When volumes exceed capacity, stop-and-go conditions result and operations are designated as LOS F. The City of Pleasanton strives to maintain LOS D or better for peak hour intersection operations.

TABLE 4.6-1

ROAD SEGMENT VOLUMES AND ANALYSIS RESULTS SUMMARY

Roadway	Segment	Designation	Existing Daily Traffic	Daily Traffic Added by Project
Independence Drive	South of Bernal Ave.	Residential Collector	1,760	180
Independence Drive	North of Hopkins Way	Residential Collector	630	490
Independence Drive	Hopkins Way to End	Local	340	550
Dalton Creek Way	North of Sycamore Creek Way	Local	180	0
Lund Ranch Road	Independence Dr. to Project Site	Local	210	550
Junipero Street	East of Sunol Blvd.	Residential Collector	2,880	260
Junipero Street	Sonoma Dr. to San Antonio St.	Residential Collector	2,240	260
Junipero Street	West of Mission Dr.	Residential Collector	1,500	320
Mission Drive	East of Sonoma Dr.	Local	1,010	110
Hopkins Way	West of Independence	Local	200	60
Hopkins Way	East of Independence	Local	290	0
Livingston Way/ Middleton Place	East of Hopkins Way	Local	<200	0
Sunset Creek Lane	East of Hanifen Way	Local	100	0
Hanifen Way	North of Sycamore Creek Way	Local	130	0
Sycamore Creek Way	Sycamore Road to east of Sycamore Terrace	Residential Collector	1,900	0
Summit Creek Lane	Summit Creek Lane	Local	580	0
Sycamore Road	East of Sunol Boulevard	Residential Collector	3,440	0

SOURCE: Fehr & Peers, 2012a.

Source: Fehr & Peers (February 2013)

Signalized Intersections. Traffic conditions at signalized intersections were evaluated by Fehr & Peers (2012a) using the method from Chapter 16 of the Transportation Research Board's 2000 *Highway Capacity Manual*. This operations analysis method uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the average control delay experienced by motorists traveling through an intersection. Control delay incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. **Table 4.6-2** summarizes the relationship between average delay per vehicle and LOS for signalized intersections.

TABLE 4.6-2

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	< 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and/or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0
E	Operations with long delays indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55.0 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	> 80.0

SOURCE: Transportation Research Board (2000)

Unsignalized Intersections. Traffic conditions at unsignalized intersections were evaluated using the method from Chapter 17 of the 2000 Highway Capacity Manual. With this method, operations are defined by the average control delay per vehicle (measured in seconds) for each movement that must yield the right-of-way. At two-way or side street-controlled intersections, the control delay (and LOS) is calculated for each controlled movement, the left-turn movement from the major street, and the entire intersection. For controlled approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. The delays for the entire intersection and for the movement or approach with the highest delay are reported. **Table 4.6-3** summarizes the relationship between delay and LOS for unsignalized intersections.

TABLE 4.6-3

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

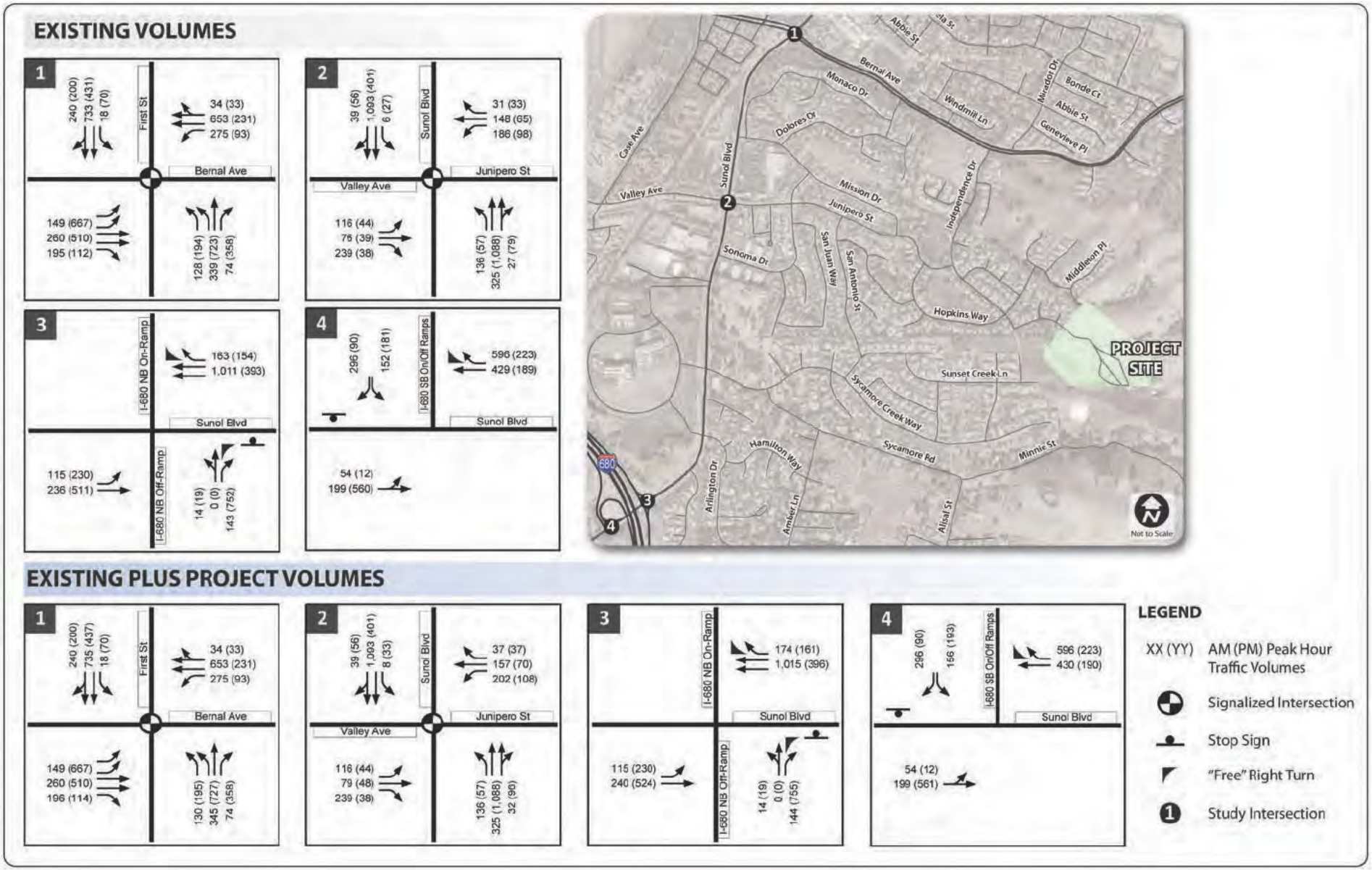
Level of Service	Description	Average Stopped Delay Per Vehicle (Seconds)
A	Little or no delays	< 10.0
B	Short traffic delays	> 10.0 to 15.0
C	Average traffic delays	> 15.0 to 25.0
D	Long traffic delays	> 25.0 to 35.0
E	Very long traffic delays	> 35.0 to 50.0
F	Extreme traffic delays with intersection capacity	> 50.0

SOURCE: Transportation Research Board (2000)

Existing Intersection Levels of Service. Study intersections were analyzed under weekday AM and PM peak-hour traffic conditions. Existing turning movement volumes at these intersections are presented in **Figure 4.6-3**, while their level of service (LOS) operation are presented in **Table 4.6-4.** These intersections are included in this analysis because they are projected to operate at Level of Service (LOS) E or F during at least one peak hour and the project is expected to add more than 10 trips to these locations.

Near-Term Traffic Conditions. Traffic volumes for the Near-Term Condition were obtained from City staff and adjusted to reflect the recently approved Housing Element land uses, representing existing traffic plus traffic from approved developments in the City, as presented on **Figure 4.6-4**. These forecasts were developed using a computerized traffic model and represent likely traffic conditions in the area over the next five to ten years. No roadway improvements were assumed for the Near-Term analysis at any of the study intersections. Signal timings were optimized at signalized intersections, as the City regularly monitors traffic signal timing to ensure optimal traffic flow through critical corridors. Results of the intersection analysis are presented in Table 4.6-4 for the Near-Term Condition. The analysis results show that two intersections are projected to operate at deficient service levels in the Near-Term Condition (i.e., LOS E or F):

- Sunol Boulevard/I-680 Northbound Ramps
- Sunol Boulevard/I-680 Southbound Ramps



Source: Fehr & Peers (February 2013)

TABLE 4.6-4

INTERSECTION LEVEL OF SERVICE SUMMARY

Intersection	Traffic Control[a]	Peak Hour	Existing		Existing Plus Project		Near Term (Existing Plus Approved Projects)				Cumulative (General Plan Buildout)			
							Without Project		With Project		Without Project		With Project	
			Delay (seconds)[b]	LOS[c]	Delay (sec.)[b]	LOS[c]	Delay (sec.)[b]	LOS[c]	Delay (sec.)[b]	LOS[c]	Delay (sec.)[b]	LOS[c]	Delay (sec.)[b]	LOS[c]
Bernal Street/ First Street	Signal	AM	34	C	34	C	D	D	42	D	**58**	**E**	**58**	**E**
		PM	45	D	45	D	46	D	46	D	49	D	49	D
Valley Street/ Sunol Boulevard	Signal	AM	29	C	31	C	36	D	39	D	51	D	52	D
		PM	21	C	22	C	25	C	26	C	25	C	28	C
Sunol Boulevard/ I-680 NB Ramps	SSSC/ Signal	AM	1 (24)	A (C)	1 (24)	A (C)	4 (**>80**)	A (**F**)	4 (**>80**)	A (**F**)	8	A	8	A
		PM	2 (29)	A (D)	2 (30)	A (D)	4 (**75**)	A (**F**)	4 (77)	A (**F**)	10	A	10	A
Sunol Boulevard/ I-680 SB Ramps	SSSC/ Signal	AM	9 (21)	A (C)	9 (22)	A (C)	**>80 (>80)**	**F (F)**	**>80 (>80)**	**F (F)**	47	D	48	D
		PM	5 (21)	A (C)	6 (22)	A (C)	11 (39)	B (**E**)	**13 (46)**	B (**E**)	44	D	45	D

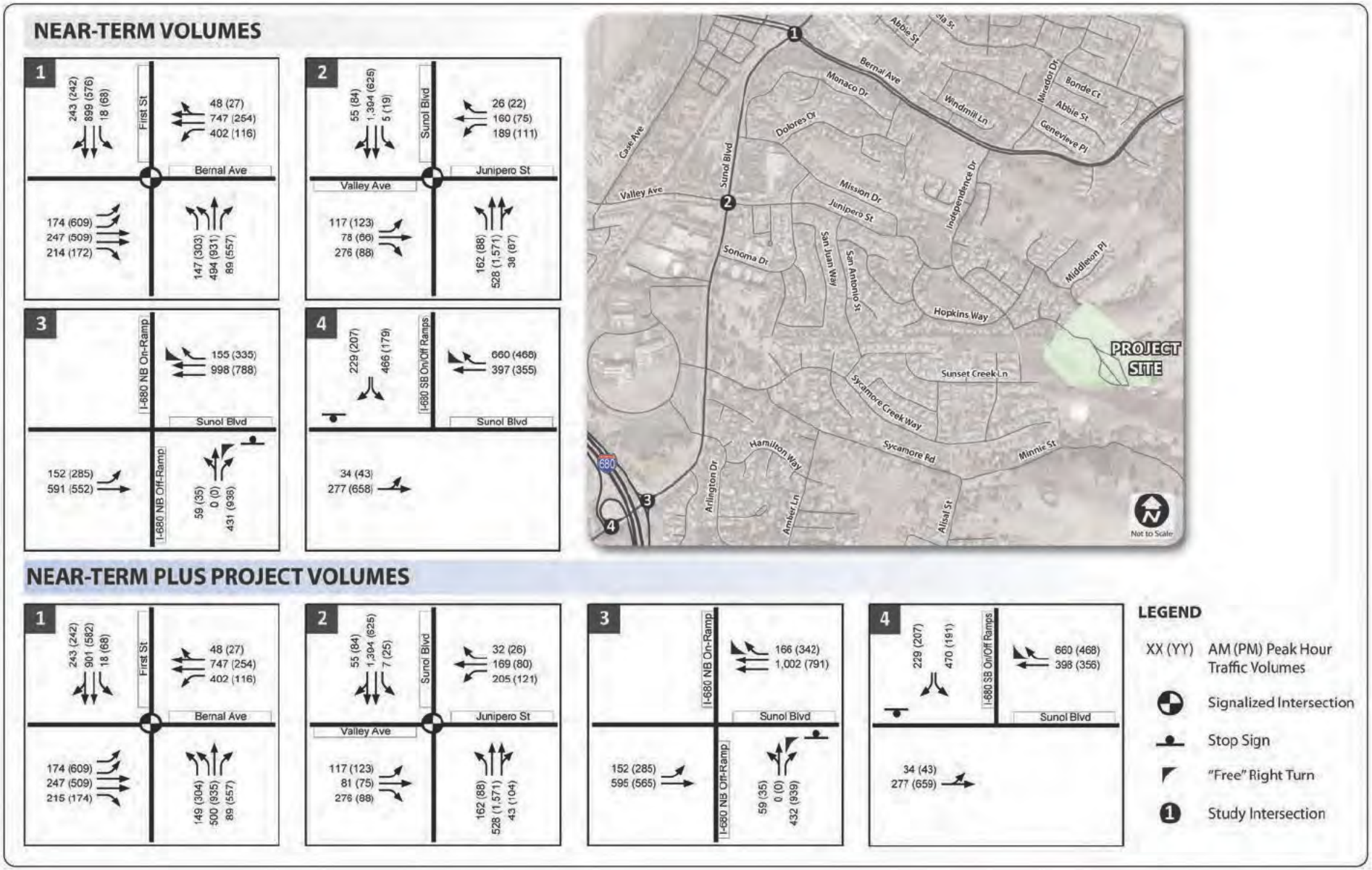
NOTES: Bold shaded text indicates potentially unacceptable intersection operations.

[a] Signal = Signalized Intersection; SSSC = Side-street stop-controlled intersections

[b] Delay presented in seconds per vehicle; for side-street stop-controlled intersections, delay presented in Intersection average (worst approach)

[c] LOS = Level of Service.

SOURCE: Fehr & Peers (2012a)



Source: Fehr & Peers (February 2013)

4.6.2 CONFORMANCE WITH LOCAL PLANS AND POLICIES

PLEASANTON GENERAL PLAN

The Circulation Element of the Pleasanton General Plan 2005-2025 identifies Sunol Boulevard and Bernal Avenue as "arterial" streets. Such streets are designed to facilitate two or more lanes of moving traffic in each direction and may be divided by a median island that controls left turns and provides lanes for left-turn movements. In the project vicinity, Junipero Street, Independence Drive, Sycamore Creek Way, and Sycamore Road are designated as "residential collector" streets, while all remaining existing streets in the project vicinity are designated as "local" street.

Figure 3-13 of the Circulation Element in the Pleasanton General Plan identifies a planned unpaved trail/path that is designated across the east end of the project site. This trail will connect the Sycamore Creek Way neighborhood located south of the site with the Bonde Ranch neighborhood to the north of the site. Project plans propose development of a Class C trail across the project site, as conceptually indicated in the Pleasanton Community Trails Master Plan (1993). The proposed trail would provide planned connections from the end of Lund Ranch Road to neighborhoods to the north and south of the project site.

The General Plan Circulation Element contains additional policies related to traffic and circulation, and project consistency with these policies is discussed below.

General Plan Policies	Project Analysis
Circulation Element *Goal 1: Develop a safe, convenient and uncongested circulation system.* *Goal 2: Develop and manage a local and regional street and highway system which accommodates future growth while maintaining acceptable levels of service.* *Policy 2: Phase development and roadway improvements so that levels of service at adjacent major intersections do not exceed LOS D at major intersections outside Downtown and gateway intersections, except as noted below.* *Policy 3: Facilitate the free flow of vehicular traffic on major arterials.* *Policy 5: At gateway intersections, facilitate the flow of traffic and access into and out of the City, consistent with maintaining visual character, landscaping, and pedestrian convenience.*	Project implementation would not cause study intersections to degrade from LOS D (or better) to LOS E or F, a less-than-significant impact. However, under the Near-Term (Existing Plus Approved Projects) Condition, the project would contribute to degradation of service level operation at the Sunol Boulevard/I-680 Northbound Ramps and Sunol Boulevard/I-680 Southbound Ramps intersections, a significant impact. Payment of traffic mitigation fees (Mitigation Measure 4.6-2) would reduce this impact to less than significant. See Impact 4.6-2 for more discussion.
Policy 6: Design and regulate city streets to minimize traffic-related impacts on adjacent land uses. *Program 7.5: Consider issues such as level of traffic, safety, vehicular noise, visual quality, and related environmental issues when reviewing new development adjacent to arterials.* *Program 7.6: Design new streets and alterations of existing streets to preserve the character and safety of existing residential neighborhoods.*	Project-related traffic increases on local streets in the neighborhood would be less than significant since daily volumes on local collector streets would remain below the significance threshold of 3,000 vehicles per day under Existing Plus Near-Term Plus Project Conditions. See Impact 4.6-3 for more discussion.

General Plan Policies	Project Analysis
Policy 8: Maximize traffic safety for automobile, transit, bicycle users, and pedestrians.	
Policy 7: Adhere to City design standards for streets in new developments. *Program 7.1: Incorporate City design standards for arterials, collectors, neighborhood collectors, and local public and private streets as part of the City's review of new developments.* *Policy 10: Require adequate on- and off-street parking.*	The project is proposed to be a Planned Unit Development, where the Planning Commission and City Council determine appropriate standards for parking, landscaping, setbacks, open space, etc. Pleasanton Municipal Code Section 19.36.040(a), Streets and Thoroughfares – Width and Geometrics, specifies a right-of-way width of 56 feet (Type A) and 46 feet (Type B) for minor residential streets and 52 feet (Type A) and 42 feet (Type B) for cul-de-sacs less than 300 feet long. Project plans indicate a 50-foot right-of-way width for all project streets, which would not meet Type A standards but exceed Type B standards. Narrower widths may be allowed if it can be demonstrated that they are justified due to topography or the small number of lots served and the probable future traffic requirements.
Program 7.2: Provide more than one access road for emergency vehicle routes to new developments, whenever feasible. *Program 7.3: Design complete streets serving pedestrians, bicyclists, motorists, and transit riders of all ages and abilities, except where infeasible. Complete streets may include: alternative intersection control where appropriate; requiring bicycle and pedestrian connections from cul-de-sacs to adjacent streets, trails, bicycle paths, and neighborhoods; and incorporating appropriate traffic calming measures.* *Program 7.4: Discourage new gated communities.*	No emergency vehicle access connections are proposed as part of the project. See Impact 4.6-5 for more discussion. The project would include sidewalks on all project streets and these streets would connect to existing streets with sidewalks. The project would extend unpaved trails across the project site and these trails would connect the project neighborhood with the Sycamore Creek Way neighborhood to the south and the Bonde Ranch neighborhood to the north. The trail would be accessible from the end of Lund Ranch Road. The project would not be a gated community.
Goal 3: Protect residential neighborhood quality-of-life and community character from cut-through traffic, speeding, and nonresidential parking. *Policy 11: Manage arterial and collector traffic to minimize adverse impacts on neighborhoods.*	An evaluation of cut-through traffic on Independence Drive and Junipero Street was completed by TJKM in November 2011. Based on traffic counts, travel distance, and travel times, this cut-through route was found to have similar travel times to using Sunol Boulevard and Bernal Avenue. Cut-through traffic could be reduced by either: (1) reducing travel time on arterials with signal timing improvements at the Sunol/Bernal intersection; or (2) increasing travel time on Independence Drive and Junipero Street with traffic calming measures along Junipero Street or adjusting signal timing at the Bernal/Independence intersection. See evaluation of cut-through traffic in Chapter 5, Alternatives.

General Plan Policies	Project Analysis
Goal 4: Provide a multi-modal transportation system which creates alternatives to the single-occupancy automobile. *Policy 22: Create and maintain a safe, convenient, and effective bicycle system which encourages increased bicycle use.* *Policy 23: Create and maintain a safe and convenient pedestrian system which encourages walking as an alternative to driving.*	The closest bus stops to the project site are located approximately 1 mile away, which would limit project residents' access to alternative transportation modes without first driving and parking at a closer location. With completion of the project's proposed trail connections, pedestrian access for the project and the adjacent neighborhoods would be enhanced, a beneficial impact.

The proposed project would be consistent with the above goals, policies, and programs assuming recommended mitigation measures are implemented.

4.6.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based on Appendix G of the CEQA Guidelines, an impact is considered significant if the proposed project would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

To determine the significance of an impact on local streets (first criteria listed above), the following thresholds are applied:

- For residential streets, daily volumes of 2,000 to 3,000 vehicles per day (vpd) are considered by various local jurisdictions in the project region to be the upper limit of traffic volumes for

designated "collector" residential streets, while 1,500 vpd is considered to be the upper limit for designated "local" residential streets. These thresholds are relatively conservative when compared with the General Plan's parameters for traffic volumes as shown in Table 3-2 (Desirable Traffic Volumes Per Roadway Type) of its Circulation Element. The Circulation Element identifies average daily traffic of 500 to 3,000 trips for local streets and 4,000 to 10,000 trips for two-lane collector streets.

With respect to the second criteria listed above, the following thresholds were used to identify significant impacts on study intersections affected by the proposed project:

- Deterioration of an intersection from LOS D (or better) to LOS E or LOS F
- The project adds 10 or more trips to an intersection projected to operate at LOS E or F prior to the addition of project traffic

However, these criteria are not applied to intersections within the Downtown Area. The *Downtown Specific Plan* contains policies which emphasize the need to maintain a traditional pedestrian-friendly atmosphere in the Downtown, with buildings constructed to the sidewalk, shade trees, outdoor dining, wide sidewalks, and street furniture. This overriding goal limits the extent intersections may be widened and improved. For this reason the Downtown intersections are exempt from the LOS D standard unless the City determines that improvements necessary to maintain LOS D are consistent with the goals of the *Downtown Specific Plan*. The Bernal Avenue/First Street intersection is located within the Downtown Area.

Additionally, the Sunol Boulevard ramp terminal intersections with I-680 have been designated as "gateway" intersections in the General Plan (Table 3-4 of the Circulation Element), and could be exempt from the LOS D standard.

Based on the project location, no impacts are anticipated with respect to the above criteria:

- *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks:* This criterion would not apply to the proposed project since the project site would not cause any change in air traffic patterns, substantially increase air traffic levels, or result in any related safety risks.

TRIP GENERATION AND DISTRIBUTION

Project trip generation refers to the process for estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Project trip generation estimates were developed by Fehr & Peers (2012a) using rates contained in the Institute of Transportation Engineers (ITE) *Trip Generation* (8th Edition). Estimates of the total amount of traffic entering and exiting the project are calculated for an average weekday, as well as a weekend day. For a typical weekday, separate estimates are created for the peak one-hour periods during the morning and evening commute periods when traffic volumes on the surrounding streets are highest. The resulting estimates are presented in **Table 4.6-5**. As presented in this table, the project is expected to generate between 480 and 550 daily trips on a typical weekday, with

TABLE 4.6-5

PROJECT TRIP GENERATION ESTIMATE

Data Source	Size	Saturday Daily	Sunday Daily	Weekday Daily	AM Peak Hour	PM Peak Hour
ITE Trip Generation Rates[a]	50 DUs	500	440	480	38	51
ITE Regression Equations[b]	50 DUs	550	430	550	45	56

NOTES: DUs: dwelling units

[a] Daily, AM, and PM trip generation based on the following rates for Single-Family Detached Housing (Land Use 210) by ITE (2008):
Saturday Daily Rate: (T) =10.08 (X); inbound = 50%, outbound =50%
Sunday Daily Rate: (T)=8.77 (X); inbound = 50%, outbound =50%
Weekday Daily Rate: (T) = 9.57 (X); inbound = 50%, outbound =50%
AM Rate: (T) = 0.75 (X); inbound = 25%, outbound = 75%
PM Rate: (T) = 1.01 (X); inbound = 63%, outbound = 37%
Where: T = trip ends and X = number of dwelling units

[b] Trip generation based on the following regression equations for Single-Family Detached Housing (Land Use 210) by ITE (2008):
Saturday Daily Equation: Ln(T) = 0.95Ln (X)=2.59; inbound = 50%, outbound =50%
Sunday Daily Equation: (T) = 8.84 (X) – 13.31; inbound = 50%, outbound =50%
Weekday Daily Equation: Ln(T) = 0.92Ln (X) + 2.71; inbound = 50%, outbound =50%
AM Equation: (T) = 0.70 (X) + 9.74; inbound = 25%, outbound = 75%
PM Equation: Ln(T) = 0.90Ln (X) + 0.51; inbound = 63%, outbound = 37%
Where: T = trip ends and X = number of dwelling units

SOURCE: Fehr & Peers (2012a)

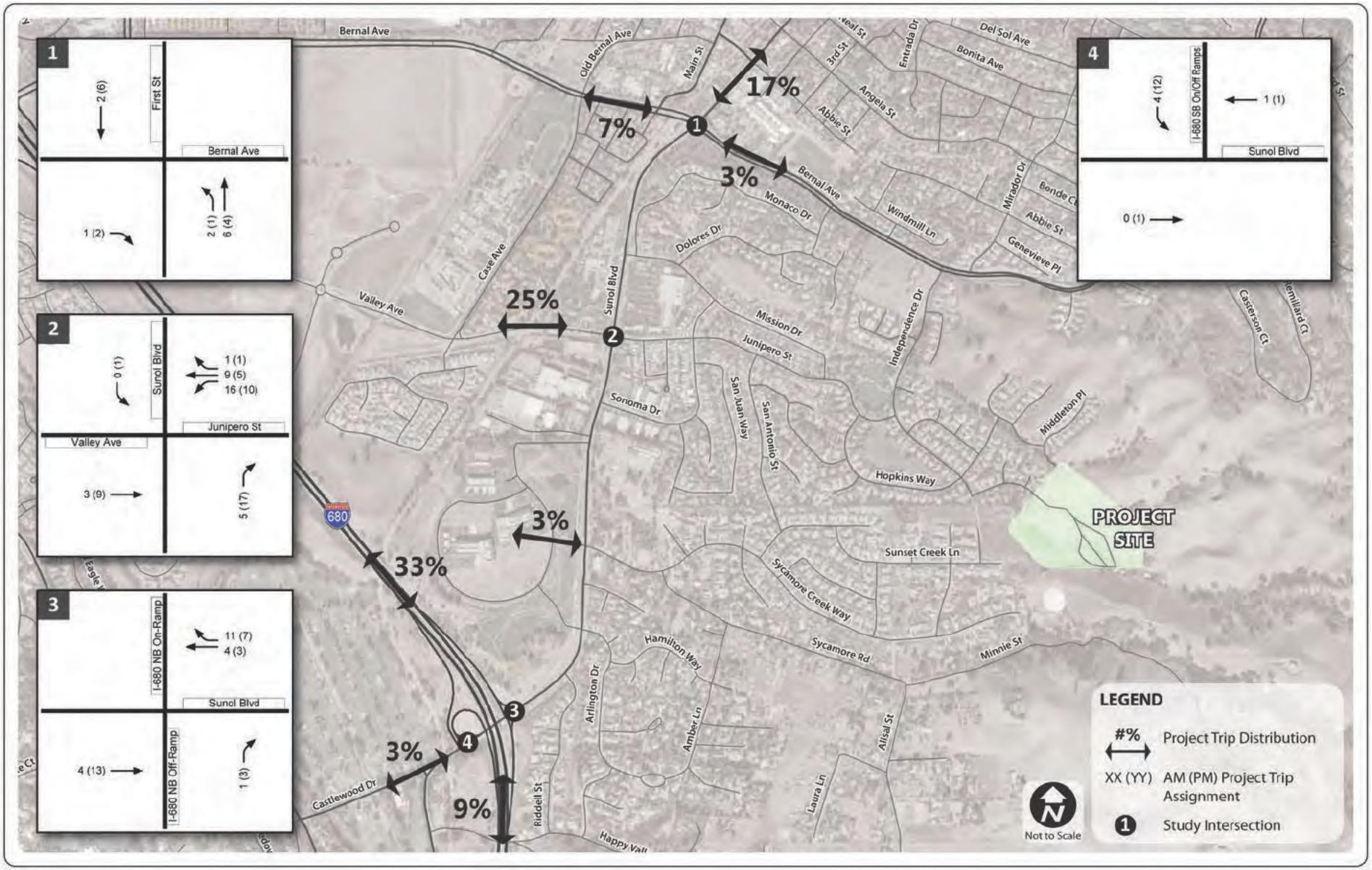
approximately 45 AM peak hour trips and 60 PM peak hour trips. For the purposes of this impact analysis, the trip generation estimates based on the regression equations were selected for use in the analysis since they are slightly higher than those prepared using the average rates.

The primary travel routes to the site, as presented on Figure 4.6-1, show that primary access would occur from Independence Drive, which connects to Bernal Avenue, and from Junipero Street, which connects to Sunol Boulevard. Depending on future resident's individual driving habits, travel could also occur to the site from other roadways including Mission Drive and Hopkins Way, although use of these streets is expected to be limited given that those roadways do not provide direct site access. Vehicle trip distribution was determined through a review of existing vehicle turning movement volumes and the City of Pleasanton Travel Demand Model select zone analysis, and the resulting trip distribution percentages are presented on **Figure 4.6-5.** Project trips were assigned through the study intersections based on these percentages; peak hour project trip assignment is also shown on this figure.

LOCAL CIRCULATION SYSTEM

Impact 4.6-1: During project construction, the project would result in temporary increases in traffic on local streets during non-peak periods. (Less than Significant)

Based on traffic generation characteristics during construction of other residential developments in Pleasanton, construction of the proposed project is estimated to generate the following traffic (TJKM, 2011):



Source: Fehr & Peers (February 2013)

- Site Grading/Preparation: 40 worker trips per day would travel to the site. Construction equipment would remain on-site during the entire grading period and would not generate traffic on a daily basis.
- Road and Utility Construction: 80 worker trips per day and 12 truck trips per day.
- Landscaping: 40 worker trips per day and 2 truck trips per day.
- Home Construction (about 15 homes under construction at any one time): 300 worker and delivery trips per day.

These four activities would be consecutive, not concurrent. Total daily construction-related traffic would be less than is estimated to occur on the same streets after the project is completed and fully occupied. When these project-related construction traffic volumes are added to existing volumes listed in Table 4.6-1, none of the local and collector streets providing access to the site would the significance thresholds for "local" and "collector" streets. Therefore, the project's short-term, construction-related traffic increases would be less than significant.

Construction workers and trucks are expected to use the same streets as project residents to access the project site: Lund Ranch Road, Independence Street, and Junipero Street. The majority of construction-related trips would occur between 6:00 and 7:00 a.m. and 3:00 to 4:00 p.m., outside the normal morning and afternoon peak hours and this would reduce potential adverse impacts on intersection operations during peak periods (TJKM, 2011). In addition, the City's Municipal Code will require project-related construction trucks (over three tons) to use Sunol Boulevard for access to the freeway. Trucks are not allowed to travel on any other city street unless that street is a direct route between Sunol Boulevard and the truck's destination.

Mitigation Measure 4.6-1: *None required.*

Impact 4.6-2: The project would result in long-term traffic increases at local intersections and incrementally degrade level of service operation at these intersections. (Less than Significant with Mitigation)

The project's principal potential traffic impacts on the circulation system would be to degrade service level operation at study intersections in the project vicinity. The project would contribute incrementally to cumulative impacts on area roadways and freeways, and this is discussed under Impact 4.6-7, Cumulative Impacts, which considers long-term impacts under General Plan Buildout Conditions.

To estimate the project's impact on study intersections, project-related peak hour turning movement estimates (see Figure 4.6-5) were added to existing volumes to develop Existing Plus Project Conditions shown on Figure 4.6-3. No intersection improvements were included in the analysis of Existing Plus Project Conditions. Results of the intersection analysis are presented in Table 4.6-4. The analysis results

show that the proposed project would not degrade service level operation at study intersections from LOS D (or better) to LOS E or F, a less-than-significant impact.

As indicated in Table 4.6-4, when approved projects are considered (Near-Term Condition), the Sunol Boulevard/I-680 Northbound Ramps and Sunol Boulevard/I-680 Southbound Ramps intersections would both operate at deficient service levels (i.e., LOS E or F). Project volumes (Figure 4.6-5) were then added to the volumes for the Near-Term Condition to develop Near-Term With Project Condition, also presented on Figure 4.6-4. The proposed project would add more than 10 vehicles through the Sunol Boulevard/I-680 Northbound Ramps and Sunol Boulevard/I-680 Southbound Ramps intersections, which would be a potentially significant impact because both intersections are projected to operate at deficient service levels (i.e., LOS E or F) under Near-Term Conditions.

The Sunol Boulevard/I-680 Northbound Ramps intersection would operate at an overall LOS A during both the AM and PM peak hours, but significant delay (LOS F) would be experienced by the side-street movements. The Sunol Boulevard/I-680 Southbound Ramps intersection would operate at an overall LOS F during the AM peak hour, with significant delay experienced by the side-street movements. Peak hour signal warrants would also be satisfied at both intersections. Although these intersections are designated as “gateway” intersections and could potentially be exempt from the LOS D standard, the projected conditions could cause excessive delay for vehicles exiting the freeway and could create an undesirable condition. The project’s incremental impact on this delay for side-street movements would be small, but would aggravate identified projected delays at these intersections under the Near-Term Conditions. Therefore, the project’s incremental contribution is considered to be significant.

Mitigation Measure 4.6-2: *The project’s impact on study intersections would be mitigated by the payment of traffic impact fees, which is proposed by the project applicant. The need to signalize the Sunol Boulevard/I-680 Northbound Ramp and Sunol Boulevard/I-680 Southbound Ramp intersections have been identified in the City’s General Plan as future planned improvements to which the project would contribute through the payment of traffic impact fees. With signalization, these intersections would operate at acceptable service levels, reducing this impact to a less-than-significant level.*

Impact Significance After Mitigation: Less than significant.

Impact 4.6-3: The project would result in long-term traffic increases on local neighborhood streets providing site access. (Less than Significant)

A neighborhood roadway analysis was conducted to determine potential impacts of project-related traffic traveling on neighborhood streets to access the project site. The analysis was conducted by comparing daily traffic volumes without and with project traffic at numerous locations along the travel routes. This analysis evaluated the proposed access via Lund Ranch Road. Alternative accesses that could be developed as part of the project were also evaluated by Fehr & Peers and results of the alternative access analysis are presented in Chapter 5, Alternatives.

Based on the project's expected daily trip generation (Table 4.6-5) and the general trip distribution percentages shown on Figure 4.6-5, the project's incremental traffic increases on local roadway segments is estimated and listed in Table 4.6-1. On a peak hour basis, the added trips are equivalent to approximately 10 percent of the daily traffic. For example, the added traffic on Lund Ranch Road just west of the project site is approximately 55 vehicles during the peak one hour of the day, or slightly fewer than one additional vehicle per minute. On a daily basis, the addition of project traffic to Lund Ranch Road could result in the traffic volumes of 3,140 vpd on the segment of Junipero Street from Sunol Boulevard to Tomas Way, which would slightly exceed the 3,000 vpd threshold. Although significant when compared to this threshold, no significant traffic impacts are expected since there are no houses fronting onto this segment of Junipero Street. East of Sonoma Drive, future (with project) traffic volumes on Junipero Street would not exceed the 3,000 vpd threshold. When project-related trips listed in Table 4.6-1 are added to local neighborhood streets, future combined volumes would not exceed the 3,000 vpd threshold for residential "collector" streets or the 1,500 vpd threshold for residential "local" streets.

As discussed above, these thresholds are relatively conservative, with the General Plan Circulation Element identifying average daily traffic of 500 to 3,000 trips for local streets and 4,000 to 10,000 trips for two-lane collector streets. The generation of project traffic volumes in compliance with these lower trip thresholds ensures conformity to street design standards and provides for the preservation of the character and safety of local streets.

Therefore, the impact of project-related traffic increases on streets in the neighborhood would be less than significant under Existing Plus Near-Term Plus Project Conditions.

Mitigation Measure 4.6-3: *None required.*

SAFETY

Impact 4.6-4: Project development would not significantly increase traffic safety in the project vicinity. (Less than Significant)

Local and collector streets in neighborhoods in the project vicinity would be subject to project-related traffic increases. However, most of the increased traffic volumes would be minimal to moderate. The resulting traffic volumes on local and collector streets are comparable to those on existing streets throughout Pleasanton that operate safely for both pedestrians and vehicles. Virtually all streets in the existing and proposed neighborhoods are equipped with sidewalks, providing a safe and convenient walking area for pedestrians. There are designated bike lanes on Sycamore Creek Way, Independence Drive (between Independence Court and Bernal Avenue), Sunol Boulevard, and Bernal Avenue. In addition, minor street intersections are equipped with stop signs, further serving pedestrians walking along collector roadways. The City has an active program to investigate and take appropriate action on any reported traffic safety issues (TJKM, 2011).

At this preliminary stage of project design, no significant traffic issues are posed by the project's proposed circulation system. A more detailed review of traffic safety will be completed by the City and the Livermore-Pleasanton Fire Department during the design review process. At that time, proposed roadways, cul-de-sacs, and access drives will be reviewed for consistency with City design standards (i.e. road and right-of-way widths, turning radii of intersections and cul-de-sacs, sight distance, grades, etc.) to minimize the potential for traffic safety problems.

Mitigation Measure 4.6-4: *None required.*

EMERGENCY ACCESS

Impact 4.6-5: The project would extend the existing Lund Ranch Road cul-de-sac by an additional 1,600 feet, and could adversely affect emergency access to the site or site vicinity. (Less than Significant with Mitigation)

The project would extend the existing Lund Ranch Road, currently approximately 670-foot long cul-de-sac) by an additional 1,600 feet from its current terminus. When completed, Lund Ranch Road would be a 0.42-mile long cul-de-sac. Pleasanton Municipal Code Section 19.36.040(b), Streets and Thoroughfares – Width and Geometrics, specifies that a cul-de-sac shall not exceed 500 feet in length. While the project's proposed extension of Lund Ranch Road would exceed the maximum 500-foot length standard, this could be allowed by the City because it is a PUD. There are two existing cul-de-sacs that are accessed from Lund Ranch Road, and the project would add three additional cul-de-sacs whose sole access would be from the proposed Lund Ranch Road extension.

Policy 13, Program 13.4 of the Public Safety Element calls for provision of adequate fire-equipment access to all structures. The proposed design would be consistent with this policy since all structures would be accessible from the project's public streets, and therefore, access-related impacts would be less –than-significant. However, Policy 7, Program 7.2 of the Circulation Element calls for provision of more than one access road for emergency vehicle routes to new developments whenever feasible.

ALTERNATIVE TRANSPORTATION MODES

Impact 4.6-6: The project would not substantially affect regional transit facilities, or local pedestrian and bicycle facilities, and proposed trail connections would improve pedestrian access. (Less than Significant; Beneficial)

Given the project's small size, the project would have minimal impact on the performance of other aspects of the existing circulation system such as regional transit facilities (BART, ACE trains, and BART express bus service which includes The County Connection between the Walnut Creek and Pleasanton/Dublin BART stations), local transit facilities (Wheels), and alternative modes of transportation (pedestrian or bicycle facilities).

The closest bus stops to the project site are located approximately 1 mile away, which would limit the potential for using these facilities without first driving and parking at a closer location. With completion of the project's proposed trail connections, pedestrian access for the project and the adjacent neighborhoods would be enhanced, a beneficial impact.

Mitigation Measure 4.6-6: *None required.*

CUMULATIVE IMPACTS

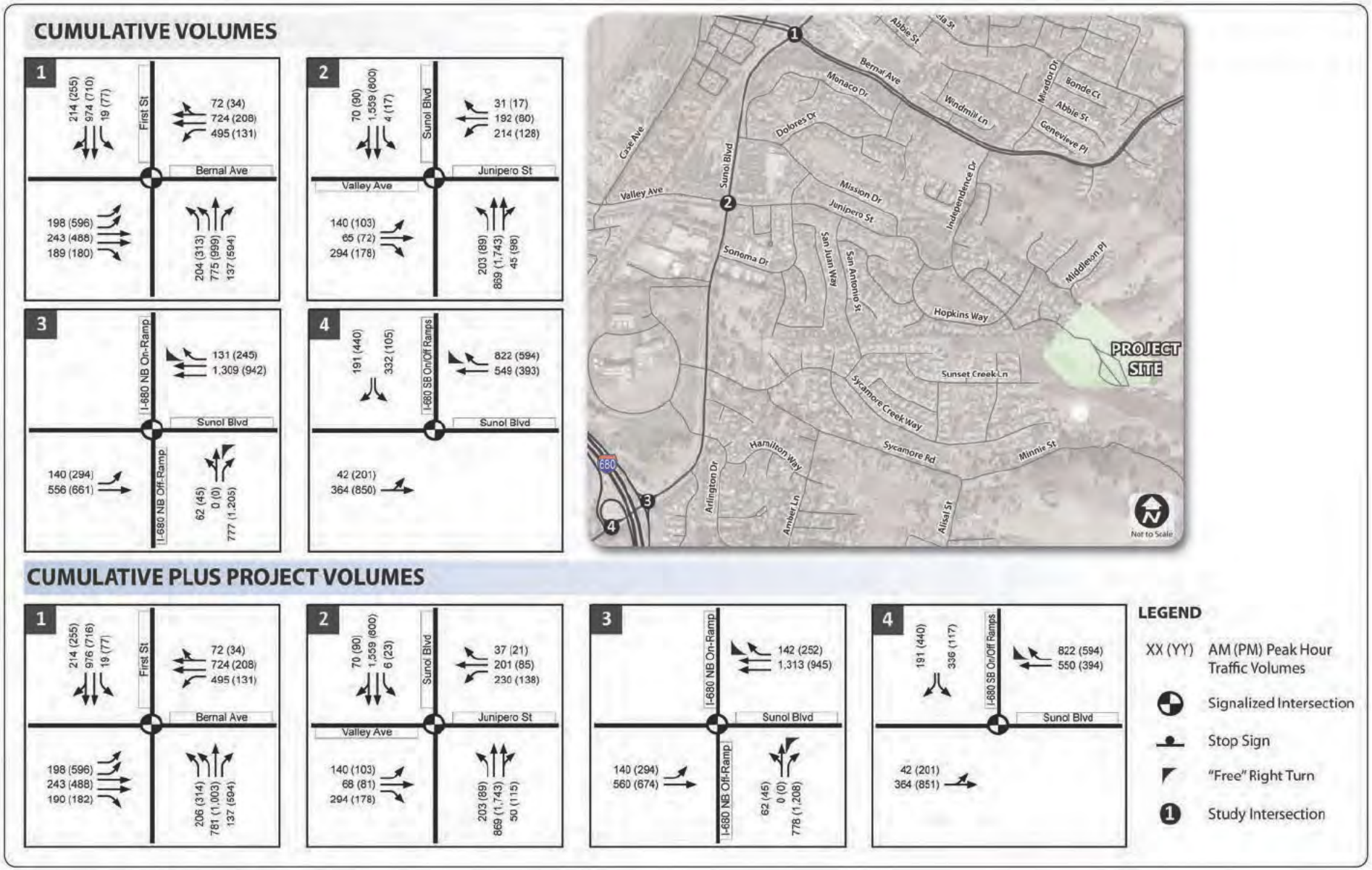
Impact 4.6-7: The project would contribute to cumulative degradation of service level operation on local streets and at study intersections, but the project's contribution would be less than cumulatively considerable. (Less than Significant)

Preliminary traffic forecasts for the Cumulative Condition were obtained from City staff, representing the Existing and Near-Term Conditions as well as buildout of the current General Plan. These forecasts were developed using a computerized traffic model and represent likely traffic conditions in the area over the next 20 years. Adjustments were made to the forecasts to include project refinements as additional information became available since the development of the traffic model (i.e., land use changes proposed as part of the recently approved Housing Element). In the base traffic modeling, development of 150 single-family homes was assumed for the project site. Since only 50 homes are now proposed, traffic generated by the assumed 150-unit development for the project site was removed to develop the Cumulative (General Plan Buildout) Without Project Condition intersection turning movement volumes, as shown on **Figure 4.6-6**.

Project volumes (Figure 4.6-5) were then added to Cumulative Without Project traffic volumes to estimate the Cumulative With Project Condition.

The City of Pleasanton plans to construct a number of roadway improvements that would result in better service levels at a number of existing intersections in the Cumulative or General Plan Buildout Condition. Some of the planned improvements include the El Charro Road extension and the Stoneridge Drive extension. Regionally-funded improvements that have the expectation of being constructed within the horizon of the General Plan update – such as the construction of an eastbound and westbound HOV lane on I-580 – were also assumed in the analysis of the Cumulative Condition. The baseline planned roadway improvements have been incorporated into the traffic forecast model and the intersection operations analysis.

At study intersections, signal timings were assumed to be optimized at signalized intersections since the City regularly monitors traffic signal timing to ensure optimal traffic flow through critical corridors. Additionally, signalization of the northbound and southbound ramp intersections of Sunol Boulevard with I-680 was accounted for in the cumulative analysis. The General Plan Buildout lane configurations and traffic controls assumed under the Cumulative Condition are also shown on Figure 4.6-6.



Source: Fehr & Peers (February 2013)

Results of the intersection analysis for the Cumulative Condition are presented in Table 4.6-4. Under the Cumulative (General Plan Buildout) Condition, the proposed project would contribute to cumulative impacts on the Bernal Street/First Street intersection, which is projected to operate LOS E during the AM peak hour with or without the Project. The project would add more than 10 vehicles through this intersection during the AM peak hour in the cumulative condition, resulting in a potentially significant impact. However, this intersection is located in the Downtown Area and is exempt from the City's LOS D standard if intersection improvements to achieve acceptable vehicle service levels conflict with other goals for the Downtown Area. Vehicular improvements have not been identified at this intersection that would not conflict with the goals of the Downtown Specific Plan. In addition, since the project's traffic contributions would not cause the operation of this intersection to degrade from LOS D (or better) to LOS E or F, the project's contribution to this cumulative impact is not considered to be cumulatively considerable, a less-than-significant cumulative impact.

Mitigation Measure 4.6-7: *None required.*

REFERENCES - TRAFFIC

City of Pleasanton, 2009. *Pleasanton General Plan 2005 - 2025, Circulation Element.* Adopted July 21, 2009. Available online at: http://www.ci.pleasanton.ca.us/business/planning/genplan-090721-final.html. Accessed on March 19, 2014.

City of Pleasanton, 1993. *Community Trails Master Plan, City of Pleasanton, California.* July 1993. Available online at: http://www.ci.pleasanton.ca.us/pdf/trails-masterplan-1993.pdf. Accessed on March 19, 2014.

Fehr & Peers, 2012a. Memorandum dated August 3, 2012 to Fritz Geier, Geier & Geier Consulting, Inc. from Kathrin Tellez and Tamara Lima, Fehr & Peers regarding Lund Ranch II Transportation Assessment. (Included in Appendix C of this EIR)

Fehr & Peers, 2012b. Memorandum dated February 24, 2012 to Fritz Geier, Geier & Geier Consulting, Inc. from Kathrin Tellez and Tamara Lima, Fehr & Peers regarding Lund Ranch II Peer Review. (On file at the Pleasanton Planning Division of the Community Development Department)

TJKM Transportation Consultants, 2011. *Lund Ranch II Alternative E Traffic Analyses.* September 15. (On file at the Pleasanton Planning Division of the Community Development Department)

TJKM Transportation Consultants, 2011. *Summary of Recent Lund Ranch II Traffic Studies.* November 23. (On file at the Pleasanton Planning Division of the Community Development Department)

4.7 NOISE

4.7.1 ENVIRONMENTAL SETTING

EXISTING NOISE ENVIRONMENT

The existing noise environment at the project site is typical of suburban residential neighborhoods with no major sources of noise. The closest major roadways are the I-680 freeway (approximately 1.1 miles to the southwest), Sunol Boulevard (approximately 0.9 mile to the west), and Bernal Avenue (about 0.25 mile to the northwest). However, the intervening distance combined with site ridgelines along the northern and southern project boundaries and hills to the west of the site help to block traffic noise from the site.

In order to characterize the existing noise environment in the site vicinity, noise levels were measured over a 24-hour period at two locations (**Figure 4.7-1**): (1) Lund Ranch Road at the western site boundary, and (2) Junipero Street west of Independence Drive. Results of the noise measurements are presented in **Table 4.7-1**. As shown in this table, noise levels in the existing neighborhood west of the site range from approximately 52 dBA (Ldn) at the eastern terminus of Lund Ranch Road to 54 dBA (Ldn) on Junipero Street by Mission Hills Park.[1] These measurements are generally consistent with noise measurements taken in 2006, which indicated noise levels of 53 dBA at the eastern terminus of Sunset Creek Lane to 56 dBA (Ldn) along Sycamore Creek Way approximately 1,100 feet west of its eastern terminus. It should be noted that the noise levels at the end of Lund Ranch Road (like Sunset Creek Lane) are indicative of the noise environment along other neighborhood streets that carry very low traffic levels since there is currently no through traffic on this street. These noise measurements indicate that noise levels in the existing neighborhood west of the site are highest closer to Sunol Boulevard and lowest at the eastern boundary.

SENSITIVE RECEPTORS

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication, physiological and psychological stress, and hearing loss. Given these effects, some land uses are considered more sensitive to ambient noise levels than others. In general, residences, schools, hospitals, and nursing homes are considered to be the most sensitive to noise. Existing residential uses are located adjacent to the project's western boundary, along Lund Ranch Road and Middleton Place. Existing homes on Lund Ranch Road are located within approximately 30 feet from the western site boundary, while homes on Middleton Place are about 75 to 100 from the project boundary. There are also residences on Sunset Creek Lane to the southwest of proposed residences, but they are separated from proposed residences by a intervening topography. The closest residential uses to the north are on Casterson Court and they are located about 1/3

[1] Ldn is a 24-hour, time-weighted noise level that adds a 10-dB penalty during the night hours (10 p m. to 7 a.m.) to account for increased sensitivity to nighttime noise in most communities.

Source: Geier & Geier Consulting (February 2013)

TABLE 4.7-1

EXISTING NOISE LEVELS

Recording Hour	Location #1 at East Terminus of Lund Ranch Road AM	Location #1 at East Terminus of Lund Ranch Road PM	Location #2 Junipero Street (100 Feet from Centerline) AM	Location #2 Junipero Street (100 Feet from Centerline) PM
12:00-1:00	42.8	51.5	42.3	50.8
1:00-2:00	42.8	47.7	40.4	59.4
2:00-3:00	44.3	46.7	44.3	45.9
3:00-4:00	44.3	48.4	42.6	50.5
4:00-5:00	44.2	46.6	44.8	48.7
5:00-6:00	44.5	50.4	47.6	50.0
6:00-7:00	46.3	44.3	49.3	46.2
7:00-8:00	48.6	45.0	52.8	53.7
8:00-9:00	50.7	44.4	53.7	46.4
9:00-10:00	50.8	46.8	48.8	47.3
10:00-11:00	47.1	45.9	48.4	48.0
11:00-12:00	50.0	43.8	51.5	44.3
Day Leq (7 a m. to 7 p m.)	49		52	
Evening Leq (7 p.m. to 10 p.m.	46		51	
Night Leq (10 p.m. to 7 a m.	45		46	
Ldn	52		54	

NOTES: All measurements were taken on Friday, February 3, 2012 (midnight to midnight). Noise measurements were taken using Metrosonics db-308 and Quest Sound Pro DL noise meters. Measurement locations are indicated in Figure 4.7-1.

SOURCE: Geier & Geier Consulting, Inc. (2012)

mile from the closest project residences. The closest school, Vintage Hills Elementary School, is located to the north on Concord Street and it is located as close as about 3/4 mile from project residences.

4.7.2 CONFORMANCE WITH LOCAL PLANS AND POLICIES

PLEASANTON GENERAL PLAN

The Noise Element of the Pleasanton General Plan 2005-2025 includes noise measurements, future (2025) noise contours, future (2025) traffic noise levels along major roadways, noise contours for the Livermore Municipal Airport, noise sensitive receptors, noise and land use compatibility guidelines as well as goals, policies, and programs.

Existing and Future Noise Contours. Future (2025) noise contours for Pleasanton reflect the results of the noise modeling using on estimated future (2025) traffic volumes on local roadways. The project site and its vicinity are located outside the existing and future 60 dBA (Ldn) noise contours, indicating that the site is and will continue to be subject to noise levels below 60 dBA (Ldn). The noise measurements taken at and near the site (Table 4.7-1, Location #1) also indicate that existing noise levels in the project vicinity are less than 60 dBA (Ldn), consistent with General Plan noise contours. Noise contours indicate that project site is not affected by aircraft or railroad noise.

Goals, Policies, and Programs. The following goals, policies, and programs would pertain to the proposed project and project consistency is discussed below:

General Plan Policies	Project Analysis
Noise Element	
Policy 1: Require new projects to meet acceptable exterior noise levels standards. *Program 1.1: Use the normally acceptable designation and text description contained in Table 11-5 "Noise and Land-Use Compatibility Guidelines," to determine the acceptability of new development and to determine when noise studies are required. For new single-family residential development, maintain a maximum day/ night average noise level standard of 60 dBA Ldn for exterior noise in private or shared outdoor use areas excluding front yards…* *Program 1.3: Use noise guidelines and contours to determine the need for noise studies and require new developments to construct or pay for noise attenuation features as a condition of approving new projects. An exterior increase of more than 4 decibels is considered significant.* *Program 1.6: Require a vibration study, prepared by a qualified vibration consultant, with a site-specific engineering assessment for any proposed construction project that would require pile-driving or similar vibration-causing impacts. The assessment would minimize potential vibration impacts through such measures as pre-drilling pile hoses, driving piles hydraulically or enclosing sheet piles with rubber aprons. The City Engineer would review and approve all vibration studies.*	Noise measurements taken at the site's western boundary (at the terminus of Lund Ranch Road) indicated that project residents would be subject to noise levels of 52 dBA (Ldn) or less. When compared to Table 11-5 of the Noise Element, such noise levels are defined as, "Normally Acceptable" for residential uses. Figure 11-2 of the Noise Element indicates that future (2025) noise levels at the site and its vicinity will also be less than 60 dBA (Ldn), which are defined as, "Normally Acceptable" for residential uses. Since noise guidelines indicate that existing and future noise levels at the site are acceptable for residential uses, no additional noise studies or noise attenuation features are required. No pile driving would be required for project construction. Therefore, no construction-related vibration study is required.

Policy 3: Ensure that noise does not exceed interior noise levels of 45 dBA Ldn for residential uses and those levels specified in noise studies for other uses. *Program 3.1: Require new developments to pay their fair share of mitigation measures necessary to reduce interior noise levels within adjacent or impacted land uses.* *Program 3.2: Require noise attenuation measures when necessary to ensure that interior noise levels for new single- and multi-family residences do not exceed 45 dBA Ldn. Interior noise levels shall not exceed 45 dBA Ldn in any new residential units (single and multi family)…*	As indicated in Table 11-5, outdoor noise levels that are less than 65 dBA (Ldn) would result in interior noise levels that are also less than 45 dBA (Ldn). Since outdoor noise levels at the project site are well below 65 dBA (Ldn), interior noise levels would also be well below 45 dBA (Ldn). Therefore, no additional noise attenuation measures would be required in project homes to achieve acceptable interior noise levels of 45 dBA (Ldn). See discussion of project-related traffic noise increases under Policy 7 below.
Policy 4: Control noise at its source to maintain existing noise levels, and in no case to exceed acceptable noise levels as established in the Noise and Land Use Compatibility Guidelines, Table 11-5. *Program 4.6: Require developers of new projects that would significantly increase noise in nearby homes to mitigate noise impacts with walls, berms or other measures, and/or to provide noise attenuating measures in the homes.*	Project residents are expected to generate noise levels similar in nature to the noise generated in adjacent residential areas, and therefore, the potential for significant noise conflicts would be minimized. Project residents, like existing adjacent residents, would be subject to noise disturbance restrictions in the City's Noise Ordinance (Section 9.04.030). Therefore, required compliance with the Noise Ordinance restrictions would reduce the potential for future noise conflicts, a *less-than-significant* impact on adjacent residents.
Policy 6: Limit truck traffic in residential and commercial areas to designated truck routes. *Program 6.1: Limit construction, delivery, and through truck traffic to designated routes.* *Program 6.2: Enforce the use of truck routes.*	Sunol Boulevard and the I-680 freeway are the closest designated truck routes in the project vicinity (Circulation Element, Figure 3-11, Truck Route Map). While these routes would be used project-related construction and delivery trucks, residential streets would still need to used to access the project site since the project site is located about one mile east of Sunol Boulevard (see Impact 4.7-2). To minimize the number of residents exposed to temporary noise increases from construction-related trucks, Mitigation Measure 4.7-2 requires these trucks to use Independence Drive and Bernal Avenue to access Sunol Boulevard and I-680.
Policy 7: Design City streets to reduce noise levels in adjacent areas. *Program 7.1: As appropriate, require sound-attenuating paving on streets, earth berms, setbacks, sound walls, and/or other noise reduction techniques as conditions of development approval. Developers should use sound walls only where other techniques are not feasible. Where sound walls are needed, design and high quality materials, as well as landscaping, should be used to mitigate their visual impact.* *Program 7.2: Attempt to maintain collector streets at 6,000-10,000 ADT or fewer average daily trips (ADT) to ensure acceptable noise levels within adjacent residences.*	As indicated in Impact 4.7-4 (Table 4.7-4), noise levels along local streets would increase from project-related traffic increases as well as from cumulative growth. While cumulative traffic noise increases would be noticeable on Independence Drive (north of Hopkins Way) and Lund Ranch Road, traffic noise levels are not expected to exceed 60 dBA (Ldn) at approximately 45 feet from the centerlines of these streets, which is the closest distance to adjacent residences. Table 11-5 of the Noise Element defines noise levels of 60 dBA (Ldn) as, "Normally Acceptable" for residential uses. Based on these noise compatibility guidelines, such noticeable traffic noise increases would be less than significant and no mitigation would be required.

Noise and Land Use Compatibility Guidelines. Figure 4.7-2 presents the Noise and Land Use Compatibility Guidelines presented in Table 11-5 of the Pleasanton General Plan, which the City uses to evaluate the compatibility between land uses and future noise levels in Pleasanton. The guidelines are used in conjunction with the future noise contours presented in Figure 11-2 of the General Plan, *Future (2025) Noise Contours*. A land use or project in the "normally acceptable" category will be acceptable within the noise levels indicated, in most cases, without special noise abatement measures. The goal for maximum outdoor noise levels in residential areas is 60 dBA (Ldn). None of the areas shown in Figure 11-2 with noise levels exceeding 60 dBA (Ldn) are located adjacent to or near the project site and noise contours also indicate the site would be subject to future noise levels of less than 60 dBA (Ldn), which is considered “normally acceptable” for residential uses (Figure 4.7-2). A comparison of the noise measurement taken as part of this study at the western project boundary (Table 4.7-1, Location #1) with these guidelines also indicates that existing noise levels at the site are below 60 dBA (Ldn), which is considered “normally acceptable” for residential uses based on the City’s noise guidelines.

PLEASANTON MUNICIPAL CODE

Noise Limits on Residential Properties. Section 9.04.030 of the Pleasanton Municipal Code limits a person from producing noise by any machine, animal, device, or any combination of the same on a residential property in excess of 60 dBA at any point outside of the property plane.

Construction Noise and Time Limits. Section 9.04.100 of the Pleasanton Municipal Code restricts construction activities to the hours of 8:00 a.m. to 8:00 p.m. daily, except on Sundays and holidays when construction hours shall be limited to 10:00 a.m. and 6:00 pm. During these hours, construction activities authorized by a valid city permit shall be allowed if they meet at least one of the following noise limitations:

“A. No individual piece of equipment shall produce a noise level exceeding 83 dBA at a distance of 25 feet. If the device is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close to 25 feet from the equipment as possible; or

B. The noise level at any point outside of the property plane of the project shall not exceed 86 dBA.”

4.7.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based on Appendix G of the CEQA Guidelines, an impact is considered significant if the proposed project 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;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;

Land Use Category	Exterior Noise Exposure (L_{dn}) 55	60	65[b]	70	75	80
Single-Family Residential [a]						
Multi-Family Residential, Hotels, and Motels [a]						
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Office Buildings, Business, Commercial, and Professional						
Auditoriums, Concert Halls, Amphitheaters						

a In noise environments resulting primarily from railroad trains, exterior noise levels up to 70 dBA Ldn are normally acceptable recognizing that day-night average noise levels are controlled by intermittent, loud events.

b <65 dBA outdoors = < 45 dBA indoors

NORMALLY ACCEPTABLE

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

CONDITIONALLY ACCEPTABLE

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

UNACCEPTABLE

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

Source: City of Pleasanton (February 2013)

- 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;
- For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within 2 miles of a public airport or public use airport, expose people residing or working in the area to excessive noise levels;
- For a project located in the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels; or
- Be substantially affected by existing noise levels.

In addition to the above significance criteria, a significant noise increase in the City of Pleasanton is also defined by comparing existing and projected noise levels with the following criteria:

- Compliance with the Pleasanton Noise Ordinance for construction-related noise;
- Consistency with City Land Use Compatibility Noise Guidelines for residential uses; and
- A determination of whether the incremental noise increase would be significant. The Pleasanton General Plan's Noise Policy 1, Program 1.3 indicates that an exterior noise increase of more than 4 dBA is considered significant.

Based on the project location, no impacts are anticipated with respect to the above criteria:

- *For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within 2 miles of a public airport or public use airport, expose people residing or working in the area to excessive noise levels:* This criterion would not apply to the proposed project since the project site is not located within an airport land use plan area. Therefore, the project would not result in any long-term exposure of construction workers or project residents to excessive airport-related noise levels.
- *For a project located in the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels:* This criterion would not apply to the proposed project since the project site is not located in the vicinity of a private airstrip. Therefore, the project would not result in any long-term exposure of construction workers or project residents to excessive airport-related noise levels.

METHODOLOGY

The noise impact assessment evaluates short-term (temporary) impacts associated with construction of project facilities as well as long-term (permanent) impacts resulting from project operation (after occupation of project homes). For construction noise, the potential for impacts is assessed by considering several factors, including the proximity of construction-related noise sources to sensitive receptors, typical noise levels associated with construction equipment, the potential for construction noise levels to

interfere with residential activities, the duration that sensitive receptors would be affected, and whether proposed activities would occur outside the construction time limits prescribed in local ordinances. For operational noise, this impact evaluation determines the potential for impact by assessing long-term noise increases from project-related traffic increases on local roadways.

To address the CEQA significance criterion regarding "substantial temporary or periodic noise increases in ambient noise levels" for construction noise, a "substantial" noise increase is defined as an increase in noise to a level that causes interference with land use activities at nearby sensitive receptors. One indicator that construction noise could interfere with daytime activities would be speech interference, and an indicator that construction noise could interfere with nighttime activities would be sleep interference. Since project construction is proposed to occur only during the daytime hours, only the speech interference threshold is used in this analysis to define potential "substantial" noise impacts. Speech interference is an indicator of impact on typical daytime and evening activities. A speech interference threshold, in the context of impact duration and time of day, is used to identify substantial increases in noise resulting from temporary construction activities. Noise peaks generated by construction equipment could result in speech interference at nearby residences if the noise level in the interior of the building exceeds 45 to 60 dBA. A typical building can reduce noise levels by 25 dBA with the windows closed (U.S. Environmental Protection Agency (EPA), 1974).

Since construction would occur only during the day and windows could be opened during the evenings and night, an exterior noise level of 85 dBA (L_{eq}) at receptors would maintain an interior noise environment of 60 dBA with windows closed during the day, which is considered acceptable on a short-term basis. It should be noted that such noise levels would be sporadic rather than continuous in nature, because different types of construction equipment would be used throughout the construction process. This noise impact assessment estimates noise levels associated with proposed project construction and compares daytime construction noise levels at sensitive receptors against the speech interference threshold.

To address the CEQA significance criterion regarding "noise levels in excess of standards established in the local general plan or noise ordinance," this EIR considers the standards in the Pleasanton Noise Ordinance. For this analysis, a noise impact could be considered significant if project construction activities extended beyond ordinance time limits for construction or construction-related noise levels exceed the ordinance noise level standards, namely: (1) construction activity is limited to 8 a.m. to 8 p.m. daily, except on Sundays and holidays when construction hours are limited to 10:00 a.m. and 6:00 pm.; and (2) each individual piece of equipment cannot produce a noise level exceeding 83 dBA at 25 feet or 86 dBA at any point outside the property plane.

Project-related excavation and construction activities could result in vibration that could disturb nearby residents and cause cosmetic damage to existing adjacent buildings or structures. The assessment of vibration impacts evaluates whether construction would result in "excessive groundborne vibration." In general, cosmetic or threshold damage to residential buildings can occur at vibrations over 0.5 inches per

second peak particle velocity (in/sec PPV; Caltrans, 2004). The impact analysis presented below uses standard analytical methodologies such as estimating vibration levels at sensitive receptors for a given vibration source and setback distance; comparing the estimated vibration level to the 0.5 in/sec PPV threshold for cosmetic damage to structures; and providing mitigation where applicable.

CONSTRUCTION NOISE

Impact 4.7-1: Project construction would result in temporary short-term noise increases due to the operation of heavy equipment and expose people to noise levels in excess of standards established by the City of Pleasanton Noise Ordinance. (Less than Significant with Mitigation)

Development of the proposed project would result in short-term noise increases due to construction. During project construction, temporary noise increases would result from the operation of heavy equipment. Construction noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between noise source and receptor, and presence or absence of barriers between noise source and receptor. To estimate probable noise impacts, typical equipment and construction techniques are assumed.

Construction noise sources range from about 76 to 85 dBA (Leq) at 50 feet for most types of construction equipment, with slightly higher levels of about 86 to 91 dBA for certain types of earth-moving equipment (e.g., trucks and pavers) and impact equipment (e.g., jackhammers and pneumatic tools). Although the highest construction-related noise levels are typically generated by rock drills and pile drivers (which can generate noise peaks of approximately 98 and 101 dBA at 50 feet, respectively), such equipment would not be used for this project. The rate of attenuation is about 6 dBA for every doubling of distance from a point source (Caltrans, 1998). Typical noise levels at 50 and 100 feet from the noise source for several types of construction equipment that could be used for this project and potential noise reductions with implementation of feasible noise controls are shown in **Table 4.7-2**.

Maximum noise levels listed in this table are intended to depict worst-case conditions, when construction occurs at the closest possible distances to the identified receptors. Noise levels would actually vary at each receptor depending on proximity of construction activities to a particular receptor, with the highest noise levels occurring during construction of homes located closest to a particular receptor. As indicated in Table 4.7-2, construction noise levels within about one-half mile would exceed ambient noise levels during the day (45 to 52 dBA (Leq); see Table 4.7-1), and could be noticeable to some residents living within this distance and with a direct line-of-sight to project construction equipment. However, construction-related noise increases are temporary, and the significance of such increases are defined by the 85-dBA speech interference threshold, as described under Methodology above.

When maximum construction-related noise levels listed in Table 4.7-2 are compared to the 85-dBA speech interference threshold, operation of most equipment on the site would not exceed this threshold, a less-than-significant impact. However, when construction equipment is operated at distances closer than 50 feet and when pavers and impact equipment are operated closer than about 75 feet, construction-

TABLE 4.7-2

CONSTRUCTION EQUIPMENT NOISE LEVELS (IN dBA)

Equipment	Leq Noise Level at 50 Feet Without Controls	Leq Noise Level at 50 Feet With Controls[a]	Leq Noise Level at 100 Feet Without Controls	Leq Noise Level at 100 Feet With Controls[a]
Earthmoving Equipment				
Front Loaders	79	75	73	69
Backhoes	85	75	79	69
Dozers	80	75	74	69
Tractors	80	75	74	69
Graders	85	75	79	69
Pavers	89	80	83	74
Trucks	85	75	79	69
Materials Handling Equipment				
Concrete Mixer	85	75	79	69
Concrete Pump	82	75	76	69
Crane	83	75	77	69
Concrete Crusher	85	75	79	69
Stationary Equipment				
Pumps	76	75	70	69
Generator	78	75	72	69
Compressors	81	75	75	69
Impact Equipment				
Jackhammers	88	75	82	69
Pneumatic Tools	86	80	80	74
Other Equipment				
Saws	78	75	72	69
Vibrators	76	75	70	69

[a] Noise levels that can be achieved with implementation of feasible noise controls. Feasible noise controls include selecting quieter procedures or machines and implementing noise-control features requiring no major redesign or extreme cost (e.g., improved mufflers, equipment redesign, use of silencers, shields, shrouds, ducts, and engine enclosures).

SOURCE: U.S. Environmental Protection Agency (1971)

related noise levels could exceed the 85-dBA threshold. This would occur when construction equipment is operated within approximately 30 feet of the project boundary on Lot 50, within 25 feet on Lots 1 and 2, and when the proposed Lund Ranch Road extension is constructed at or within 45 feet the project boundary. Existing homes located adjacent to these lots and adjacent to the current terminus of Lund Ranch Road are located as close as approximately 20 feet from Lot 50, 25 feet from Lots 1 and 2, and 30

feet from the proposed extension of Lund Ranch Road. Exceedance of the 85-dBA threshold at the closest adjacent residences would be a significant noise impact. All other existing homes located adjacent to the project site would be located more than 50 feet from proposed construction (more than 100 feet in most cases) and construction-related noise increases would be less than significant. With implementation of noise controls as specified in Mitigation Measure 4.7-1, construction noise levels would be reduced to a less-than-significant level. Table 4.7-2 also indicates that use of feasible noise controls would reduce equipment-related noise to levels below the 85-dBA speech interference threshold at the closest receptors

Section 9.04.100 of the Pleasanton Municipal Code restricts construction activities to the hours of 8:00 a.m. to 8:00 p.m. daily, except on Sundays and holidays when construction hours shall be limited to 10:00 a.m. and 6:00 pm. During these hours, construction activities authorized by a valid city permit would be allowed, but equipment noise could not exceed 83 dBA at a distance of 25 feet (equivalent to 77 dBA at 50 feet) and no equipment is allowed to exceed 86 dBA at the property boundary. Operation of construction equipment within 50 feet of the project boundary could exceed ordinance noise limits, particularly when pavers or impact equipment are operated. This would occur when site preparation and home construction occur on Lots 1 through 5 and 50 as well as when the proposed Lund Ranch Road extension is constructed at or near the existing terminus of Lund Ranch Road, a potentially significant noise impact. Table 4.7-2 indicates that use of feasible noise controls (as required in Mitigation Measure 4.7-1) would reduce equipment-related noise to levels below the 83-dBA ordinance noise limit at 25 feet (or 77 dBA at 50 feet) except if pavers or pneumatic tools are operated closer than 35 feet from the closest residences. Compliance with noise limits specified in Mitigation Measure 4.7-1 would limit use of such equipment within about 35 feet of adjacent residences. Therefore, with implementation of noise controls as specified in Mitigation Measure 4.7-1, construction noise levels would be reduced to a less-than-significant level.

Mitigation Measure 4.7-1: *Project contractors will be required to comply with Pleasanton Municipal Code (Section 9.04.100), which would restrict noise generation by construction to the hours of 8:00 a.m. and 8:00 p.m. on Mondays through Saturdays. All construction equipment shall generate noise levels no greater than 83 dBA (Leq) at 25 feet. Feasible noise controls that could be implemented to reduce equipment noise levels include the following:*

- *Implement best available noise control techniques such as mufflers, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds.*

- *Equipment used for project construction shall be hydraulically- or electrically-powered impact tools (e.g., jackhammers, pavement breakers, and rock drills) wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler should lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this should achieve a reduction of 5 dBA. Quieter procedures such as drilling rather than impact equipment shall be used whenever feasible.*

- *Stationary noise sources shall be located as far from residential receptors as possible. If they must be located near residential receptors, they should be adequately muffled and enclosed within temporary sheds.*

- *Limit continuous operation of heavy equipment near sensitive receptors.*

- *The name and phone number of the designated project liaison shall be posted at the project site boundary so that the public can contact the liaison if noise disturbance occurs. This liaison shall immediately take steps to resolve any complaints received, including modifying construction practices as necessary to address the noise complaint.*

Impact Significance After Mitigation: Less than significant.

Impact 4.7-2: Project construction would increase construction-related traffic on local streets for the duration of project construction. (Less than Significant with Mitigation)

TJKM (2011) estimates that project-related construction activities could generate approximately 300 worker and delivery trips per day, assuming about 15 homes would be under construction at any one time. A breakdown of this volume by construction phase (occurring consecutively, not concurrently) would be as follows:

- Site Grading: 40 worker trips/day
- Road and Utility Construction: 80 worker trips/day and 12 truck trips/day
- Landscaping: 40 worker trips/day and 2 truck trips per day
- Home building: 300 worker and delivery trips per day

Worker trips are required to occur between 7:00 a.m. to 8:00 a.m. and 4:00 p.m. to 5:00 p.m. The majority of all trips would occur outside the normal AM and PM peak hours. TJKM notes that daily construction traffic volumes would be less than would occur on the same streets after the project is completed and occupied.

Truck noise levels depend on vehicle speed, load, terrain, and other factors. The effects of construction-related truck traffic would depend on the level of background noise already occurring at a particular receptor site. In quiet noise environments such as residential streets in the project vicinity (Leq averaging 50 dBA), one truck per hour (a single noise event) would be noticeable, even though such a low volume would not measurably increase noise levels. In slightly noisier environments such as collector residential streets like Bernal Avenue (Leq averaging 60 dBA), the threshold level is higher, and 10 trucks per hour would be required to noticeably increase the noise exposure. In moderately noisy environments like Sunol Boulevard (Leq averaging 70 dBA), a noise increase would be perceptible with the addition of 100 trucks per hour (Caltrans, 1998).

When haul/delivery truck noise is considered on an hourly basis rather than as a single noise event, hourly noise levels generated by an average haul/delivery truck traffic volume of 5 trucks per hour along haul/delivery routes (between 8:00 a.m. and 5:00 p.m. only) would be approximately 57 dBA (Leq) at 50

feet or 50 dBA (CNEL). Such noise levels would be noticeable when compared to ambient noise levels along residential streets in the neighborhood, but would not be noticeable on noisier streets like Bernal Avenue and Sunol Boulevard. These truck-related noise levels also would not exceed the 70-dBA speech interference threshold, and therefore, would be a less-than-significant impact, particularly when the short-term nature of these truck traffic noise increases is considered. However, if truck operations extend into the more noise-sensitive evening or nighttime hours (after 7:00 p.m.), such noise increases could result in disturbance of residents living along truck routes, a potentially significant impact. It should be noted that hourly and daily truck volumes would vary based on the construction phase, with higher volumes occurring during the grading and concrete placement phases (when excavated materials are transported off-site and concrete trucks are delivering concrete to the site) and lower volumes during other construction phases..

However, Policy 6 of the 2025 General Plan Noise Element calls for limiting truck traffic in residential areas to designated truck routes in order to reduce potential noise impacts on residents. Project-related construction trucks would be required to use Independence Drive to Bernal Avenue for access to Sunol Boulevard (Mitigation Measure 4.7-2) in order to reduce the number of residents exposed to temporary increases in truck traffic noise. In addition, Mitigation Measure 4.7-1 would restrict truck operations to the daytime weekday hours (8:00 a.m. to 5:00 p.m.), which would further minimize the potential for disturbance from truck noise on local streets.

Mitigation Measure 4.7-2: *To minimize the number of residents exposed to temporary increases in truck traffic noise, construction-related trucks shall be required to use Independence Drive to Bernal Avenue to access Sunol Boulevard and the I-680 freeway. In addition, haul and delivery truck operations shall be limited to the daytime weekday hours (8:00 a.m. to 5:00 p.m.) to minimize noise disturbance.*

Impact Significance After Mitigation: Less than significant.

Impact 4.7-3: Construction activities would not result in excessive groundborne vibration at the closest adjacent residences. (Less than Significant)

As described above, based on the level at which threshold damage to structures could be expected, a significant impact could occur if vibration exceeds 0.5 in/sec PPV. Typical vibration levels associated with operation of various types of construction equipment are listed in **Table 4.7-3**. As indicated in this table, operation of typical types of construction equipment would not exceed this threshold at the closest adjacent residences, which are located 20 to 25 feet the project site boundary. Therefore, construction-related vibration impacts would be less than significant.

Mitigation Measure 4.7-3: *None required.*

TABLE 4.7-3

VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT AT 25 FEET FROM RECEPTORS

Equipment	Peak Particle Velocity (PPV) (in/sec) At 25 Feet[a]
Vibratory Roller/Compactor	0.210
Large Bulldozer	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer	0.003

[a] Except as noted below, vibration amplitudes for construction equipment at 25 feet are provided by the FTA and assume normal propagation conditions.
SOURCE: U.S. FTA (2006)

OPERATIONAL NOISE

Impact 4.7-4: Operation of proposed residences would result in noise increases from residential activities on-site as well as project-related traffic increases on local residential streets. (Less than Significant with Mitigation)

While project implementation would generate noise associated with residential activities, which would be similar in nature to the noise generated in adjacent residential areas. Therefore, the potential for significant noise conflicts to occur would be minimized. Project residents, like existing adjacent residents, would be subject to noise disturbance restrictions in the City's Noise Ordinance (Section 9.04.030), which prohibits any person on residential property from producing noise levels above 60 dBA at any point outside of the property plane from machine, animal, device or combination of these. Therefore, required compliance with the Noise Ordinance restrictions would reduce the potential for future noise conflicts, a less-than-significant impact on adjacent residents.

As indicated in **Table 4.7-4**, under Existing Plus Project Conditions, noise levels along local neighborhood streets would increase by 0 to 5.6 dBA. In general, traffic noise increases of 3 dBA are barely perceptible to most people, while noise increases of 5 dBA are readily noticeable. Project-related noise increases would be barely perceptible or not perceptible on all neighborhood streets listed in Table 4.7-4 (0 to 1.4 dBA increase) except Lund Ranch Road, where the estimated 5.6 dBA noise increase would be readily noticeable, and the section of Independence Drive south of Hopkins Way, where the 4.2 dBA noise increase would be perceptible. As indicated in Table 4.7-4, traffic noise levels are not expected to exceed 60 dBA (Ldn) at 50 feet from the centerlines of neighborhood streets, which is approximately the closest distance to adjacent residences. Table 11-5 of the Noise Element defines noise levels of 60 dBA (Ldn) as, "Normally Acceptable" for residential uses. Additional considerations outlined in the Pleasanton General Plan Noise Element (page 11-21) indicate that this threshold applies to outdoor use areas such as backyards of single-family homes; people in front yards can tolerate noise levels of up to 65 dBA (Ldn). Based on the noise compatibility guidelines presented in Table 11-5 and considerations

TABLE 4.7-4

PROJECT-RELATED TRAFFIC NOISE INCREASES

Road	Segment	Noise Level (Ldn) at 50 Feet from Centerline				Change from Existing
		Existing Daily Traffic	Daily Traffic Added by Project	Existing Noise Level	Noise Level With Project	
Independence Drive	South of Bernal Ave.	1,760	180	56.5	56.9	0.4
Independence Drive	North of Hopkins Way	630	490	52.0	53.4	1.4
Independence Drive	Hopkins Way to End	340	550	49.3	53.5	4.2
Dalton Creek Way	North of Sycamore Creek Way	180	0	46.6	46.6	0.0
Lund Ranch Road	Independence Dr. to Project Site	210	550	47.2	52.8	5.6
Junipero Street	East of Sunol Blvd.	2,880	260	58.6	59.0	0.4
Junipero Street	Sonoma Dr. to San Antonio St.	2,240	260	57.5	58.0	0.5
Junipero Street	West of Mission Dr.	1,500	320	55.8	56.6	0.8
Mission Drive	East of Sonoma Dr.	1,010	110	54.0	54.5	0.4
Hopkins Way	West of Independence	200	60	47.0	48.1	1.1
Hopkins Way	East of Independence	290	0	48.6	48.6	0.0
Livingston Way/ Middleton Place	East of Hopkins Way	200	0	47.0	47.0	0.0
Sunset Creek Lane	East of Hanifen Way	100	0	44.0	44.0	0.0
Hanifen Way	North of Sycamore Creek Way	130	0	45.1	45.1	0.0
Sycamore Creek Way	Sycamore Road to east of Sycamore Terrace	1,900	0	56.8	56.8	0.0
Summit Creek Lane	Summit Creek Lane	580	0	51.6	51.6	0.0
Sycamore Road	East of Sunol Blvd.	3,440	0	59.4	59.4	0.0

SOURCE: Geier & Geier Consulting (2012)

outlined in the Noise Element (page 11-21), future traffic noise levels along neighborhood streets (with the proposed project) would be less than significant since they would not exceed 65 dBA (Ldn) in the front yards of residences located adjacent to all affected neighborhood streets.

When these estimated noise increases are compared to General Plan Policy 1, Program 1.3, which specifies a threshold for exterior noise increases of no more than 4 dBA, the 5.6 and 4.2 dBA increases on Lund Ranch Road and Independence Drive (north of Hopkins Way), respectively, would be a significant impact. In order to reduce the project's traffic noise increases to 4 dBA on Lund Ranch Road and Independence Drive, the project design would need to be modified to either: (a) reduce the project's trip generation from 550 daily trips to 320 trips (from 50 residential units to 29 units) so that the project's traffic noise increases on these roads do not exceed 4 dBA; or (b) use rubberized pavement on Lund

Ranch Road (Independence Drive to project site) and Independence Drive (from Lund Ranch Road to Hopkins Way) to achieve noise reductions of up to 5 dB.[2]

Mitigation Measure 4.7-4: *The City shall require the project applicant to reduce the project's estimated 5.6 dBA increase on Lund Ranch Road to 4 dBA or less. Such a reduction could be achieved by either: (a) reducing the number of residential units to 29 in order to sufficiently reduce noise generated by project-related traffic volumes; or (b) requiring resurfacing Lund Ranch Road (Independence Drive to project site boundary) and Independence Drive (from Lund Ranch Road to Hopkins Way) with rubberized asphalt to be installed, at discretion of the City Engineer, prior to project completion.*

Impact Significance After Mitigation: Less than significant.

NOISE COMPATIBILITY OF PROPOSED RESIDENTIAL USE

Impact 4.7-5: The proposed residences would be located in a noise environment that is normally acceptable for residential uses. (Less than Significant)

As indicated above and in Table 4.7-1, existing noise levels at the western project boundary are 52 to 53 dBA (Ldn). The 2025 General Plan Noise Element's land use compatibility noise guidelines (Figure 4.7-2) define noise levels of less than 60 dBA (Ldn) as "normally acceptable" for residential uses. Therefore, existing noise levels at the site are considered acceptable for the proposed residential use and no noise abatement measures would be required.

Mitigation Measure 4.7-5: *None required.*

CUMULATIVE IMPACTS

Impact 4.7-6: The project's contribution of construction-related and operational traffic noise increases on the local street network would not be cumulatively considerable since traffic generated by approved and pending projects would not affect the same local street network. (Less than Significant)

The geographic scope of potential cumulative noise impacts encompasses the project site and the neighborhood adjacent to roads providing access to the site.

Construction. No cumulative increases in construction-related on-site noise is expected to occur since none of the approved or pending projects (see list and map of projects in Appendix G) is located in the immediate project vicinity nor would they be served by the same access roads as project-related

[2] Various studies indicate noise level reductions of at least 5 dB and because rubberized asphalt resists cracking it typically lasts longer than conventional asphalt. Since the cost of conventional asphalt mix has increased substantially, the cost of rubberized asphalt is competitive so that when longer pavement life is considered with equivalent costs, required repaving would not increase maintenance costs for the City (Clemson University, no date; USEPA, 2013; ForConstructionPros.com, 2011).

construction traffic. Therefore, the project's contribution to this impact would not be cumulatively considerable, which is a less-than-significant cumulative impact.

Operation. Traffic increases associated with approved and pending projects would not use the same local street network that would be affected by project-related traffic increases (Lund Ranch Road, Independence Drive, Juniper Street, Hopkins Way, and Mission Drive). Therefore, the project's operational traffic noise increases would not be cumulatively considerable, which is a less-than-significant cumulative impact.

Mitigation Measure 4.7-6: *None required.*

REFERENCES - NOISE

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4.8 AIR QUALITY

4.8.1 ENVIRONMENTAL SETTING

METEOROLOGY

The project site is located in Alameda County, which lies within the San Francisco Bay Area Air Basin (BAAB). Temperatures in the Pleasanton area average 58^0F annually, with winter lows in the upper 30's and summer highs in the upper 80's.

Daily and seasonal fluctuations in temperature are relatively minor because of the moderating effects of the nearby ocean. In contrast to the steady temperature regime, rainfall is highly variable and confined almost exclusively to the "rainy" period from early November to mid-April. Pleasanton averages 15 inches of precipitation annually, but because much of the area's rainfall is derived from the fringes of mid-latitude storms, a shift in the annual storm track of a few hundred miles can mean the difference between a very wet year and near-drought conditions.

Wind data for the Livermore Municipal Airport show wind predominantly blowing from the west and southwest, reflecting the location of the Hayward Canyon and Niles Canyon gaps in the East Bay Hills. Winds are generally highest in the afternoon and lowest at dawn. From 1998 to 2005, the Bay Area Air Quality Management District (BAAQMD) measured average wind speeds between 12 and 13 miles per hour (mph). Calm conditions are comparatively frequent, occurring about one fourth of the time (City of Pleasanton, 2009).

AMBIENT AIR QUALITY

The Livermore-Amador sub-regional air basin, in which Pleasanton is located, also contains the growing communities of Livermore, Dublin, San Ramon, Danville, and Alamo. The Livermore-Amador Valley is located generally downwind with respect to the Greater Bay Area, so that the air stream into the Valley is already contaminated by pollutants released upwind. In turn, pollutants generated within the Livermore-Amador Valley are transported easterly into the San Joaquin Valley. Pollutants from the Bay Area are suspected to be transported into the Sierra Nevada, where they may contribute to acid rain and acid deposition. The combined effects of frequently light or calm winds, frequent inversions that restrict vertical dilution, and terrain that restricts horizontal dilution give Pleasanton a high atmospheric potential for pollution.

The Bay Area Air Quality Management District (BAAQMD) operates a regional monitoring network which measures the ambient concentrations of six criteria air pollutants: ozone (O_3), carbon monoxide (CO), inhalable particulate matter (PM10), lead (Pb), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). Existing and probable future levels of air quality in the project area can be generally inferred from ambient air quality measurements conducted by the BAAQMD at its Livermore air monitoring station. **Table 4.8-1** is a six-year summary of monitoring data (2005-2010) from the BAAQMD's monitoring

station in Livermore at 793 Rincon Avenue. Table 4.8-1 compares measured pollutant concentrations with state ambient air quality standards, which are more stringent than the corresponding federal or national standards. These data indicate that the Livermore-Amador Valley continues to experience air pollution problems with both atmospheric pollution potential and emissions continuing to be high in this area. Monitored values for ozone, PM_{10} and $PM_{2.5}$ occasionally exceed the more stringent state air quality standards during the last six years of published data. Since 2005, CO and NO_X have remained within allowable levels.

TABLE 4.8-1

PROJECT AREA AMBIENT AIR QUALITY MONITORING SUMMARY, 2005 – 2010

Pollutant	Most Stringent Applicable Standard	Number of Days Standards were Exceeded and Maximum Concentrations Measured					
		2005	2006	2007	2008	2009	2010
Ozone							
Maximum 1-hour concentration (ppm)[b]		0.120	0.127	0.120	0.141	0.113	0.150
Days 1-hour standard exceeded	>0.09 ppm[a]	6	13	2	5	8	3
Maximum 8-hour concentration (ppm)[a]		0.090	0.101	0.091	0.111	0.086	0.097
Days 8-hour standard exceeded	>0.07 ppm[a]	7	15	3	8	8	6
Days 8-hour standard exceeded	>0.075 ppm[b]	2	10	2	6	6	3
Carbon Monoxide (CO)							
Maximum 8-hour concentration (ppm)		1.8	1.8	1.8	1.4	1.3	-
Maximum 1-hour concentration (ppm)		3.4	3.3	3.3	2.4	2.4	-
Days 1-hour standards exceeded	> 20 ppm[a]	0	0	0	0	0	-
Days 8-hour standards exceeded	>9 ppm[a,b]	0	0	0	0	0	0
Nitrogen Dioxide (NO_2)							
Maximum 1-hour concentration (ppm)		0.072	0.064	0.052	0.058	0.052	-
Days 1-hour standard exceeded	>0.18 ppm[a]	0	0	0	0	0	0
Suspended Particulates (PM_{10})							
Maximum 24-hour concentration (µg/m^3)		49.	69.	75.	47.	-	-
Days 24-hour standard exceeded[c]	>50 µg/m^3 [a]	0	3	2	0	0	-
Days 24-hour standard exceeded[c]	> 150 µg/m^3 [b]	0	0	0	0	0	-
Suspended Fine Particulates ($PM_{2.5}$)							
Maximum 24-hour concentration (µg/m^3)		32.1	50.8	54.9	38.6	45.7	34.7
Days 24-hour standard exceeded	>35 µg/m^3 [d]	0/93	3/95	3/90	2/146	4/120	-
Annual Average (µg/m^3)		10.2	11.1	9.0	10.1	9.2	7.6
Annual standard exceeded?	>12 µg/m^3 [a]	No	No	No	No	No	No

NOTES: "–" indicates that data are not available; ppm = parts per million; µg/m^3 = micrograms per cubic meter.

[a] State standard, not to be exceeded.

[b] Federal standard, not to be exceeded.

[c] Because PM10 is only sampled every sixth day, the actual number of days over the standard can be estimated to be six times the number shown.

[d] Federal standard, reduced from 65 µg/m^3 to 35 µg/m^3 in 2006.

SOURCE: California Air Resources Board (2004 to 2010)

Ozone (O_3). Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxide (NO_X). The main

sources of NO_X and ROG, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) and the evaporation of solvents, paints, and fuels. Automobiles are the single largest source of ozone precursors in the Bay Area. Ozone is a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process, resulting in the regional dispersion of ozone. Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema (BAAQMD, 2012a). Table 4.8-1 shows that exceedance of the state 1-hour standard occurred on an average of 6 days per year in the project area between 2005 and 2010. The state 8-hour standard of 0.07 ppm was exceeded on an average of 8 days per year, while the federal 8-hour standard of 0.075 ppm has been exceeded on approximately 5 days per year, according to published data.

Carbon Monoxide (CO). CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles; the highest emissions occur during low travel speeds, stop-and-go driving, cold starts, and hard acceleration. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, dizziness, fatigue, unconsciousness, and even death (BAAQMD, 2012a). Table 4.8-1 shows that no exceedances of state CO standards were recorded between 2005 and 2009. Maximum 8-hour CO levels average less than 25 percent of the allowable 8-hour standard.

Suspended and Inhalable Particulate Matter (PM_{10} and $PM_{2.5}$). Particulate matter is a class of air pollutants that consists of solid and liquid airborne particles in an extremely small size range. Particulate matter is measured in two size ranges: PM_{10} for particles less than 10 microns in diameter, and $PM_{2.5}$ for particles less than 2.5 microns in diameter. Motor vehicles generate about half of all Bay Area particulates, through tailpipe emissions as well as brake pad and tire wear. Another large source of fine particulates is wood burning in fireplaces and stoves. Fine particulates small enough to be inhaled into the deepest parts of the human lung can cause adverse health effects. Extended exposure to particulate matter can increase the risk of chronic respiratory disease. $PM_{2.5}$ poses an increased health risk because the particles can deposit deep in the lungs and contain substances that are particularly harmful to human health (BAAQMD, 2012a).

Diesel exhaust is an important concern in the Bay Area and throughout California. The California Air Resources Board (CARB) identified diesel engine particulate matter (DPM) as a toxic air contaminant (TAC), and DPM has also been identified as a human carcinogen. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Many of these toxic compounds adhere to the diesel soot particles, which are very small and can penetrate deeply into the lungs. Several medical research studies have linked near-road pollution exposure to a variety of adverse health outcomes impacting children and adults, including significant allergic response and elevated production of specific antibodies (BAAQMD, 2012a).

Table 4.8-1 shows that exceedances of the state PM_{10} standard occur relatively infrequently in the Livermore-Amador Valley. The state PM_{10} standard was exceeded on 2 measurements of all

measurement days during the last four years for which there is data. Federal PM_{10} standards have never been exceeded at the Livermore monitoring station.

In 2006, the U.S. Environmental Protection Agency (EPA) reduced the standard for $PM_{2.5}$, which represents the fine fraction of particulate from 65 to 35 µg/m^3. Table 4.8-1 presents the $PM_{2.5}$ data from the Livermore monitoring station for 2005 through 2010. The 35 µg/m^3 $PM_{2.5}$ standard has only been exceeded 12 times in the last five years for all monitoring days. Further the annual average of 12 µg/m^3 has not been exceeded in the last 6 years.

Other Criteria Air Pollutants. The standards for NO_2, SO_2, and lead are being met in the SFBAAB, and pollutant trends suggest that the air basin will continue to meet these standards for the foreseeable future.

TOXIC AIR CONTAMINANTS

Toxic air contaminants (TACs) are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis or genetic damage; or short-term acute affects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches (BAAQMD, 2012a).

TACs can be emitted directly and can also be formed in the atmosphere through reactions among different pollutants. The methods presented in the BAAQMD's CEQA Guidelines (2012a) for assessing local community risk and hazard impacts only include direct TAC emissions, not those formed in the atmosphere. TACs do not have ambient air quality standards, but are regulated by the BAAQMD using a risk-based approach. For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure. Non-carcinogenic substances differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis. Acute and chronic exposure to non-carcinogens is expressed as a hazard index (HI), which is the ratio of expected exposure levels to an acceptable reference exposure levels (BAAQMD, 2012).

SENSITIVE RECEPTORS

Land uses such as schools, children's day care centers, playgrounds, hospitals, rehabilitation centers, and senior housing (including assisted living and nursing 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. Residential uses are located west and north of the project site. The closest air quality sensitive receptors is the Vintage Hills Elementary School, 1125 Concord Street (as indicated by mapping in the Air Quality and Climate Change Element, *2005 Pleasanton Plan 2025*), which is located as close as about 3/4 mile from project residences.

4.8.2 REGULATORY AND PLANNING FRAMEWORK

FEDERAL STANDARDS

The 1977 Clean Air Act (CAA) required that regional planning and air pollution control agencies prepare a regional Air Quality Plan to outline the measures by which both stationary and mobile sources of pollutants can be controlled in order to achieve all standards within the deadlines specified in the Clean Air Act. For the San Francisco Bay Area Air Basin (SFBAAB), the Association of Bay Area Governments (ABAG), the Metropolitan Transportation Commission (MTC), and the Bay Area Air Quality Management District (BAAQMD) jointly prepared a Bay Area Air Quality Plan in 1982, which predicted attainment of all federal Clean Air standards within the air basin by 1987. This forecast was somewhat optimistic in that attainment of federal Clean Air standards did not occur throughout the entire air basin until 1991. The plan, which is referred to as the State Implementation Plan (SIP), must contain control strategies that demonstrate attainment with national ambient air quality standards by deadlines established in the federal CAA. The SFBAAB attainment status with respect to federal standards is summarized in **Table 4.8-2**.

STATE STANDARDS

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the National Ambient Air Quality Standards (NAAQS) in Table 4.8-2, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMP's also serve as the basis for the preparation of the State Implementation Plan (SIP) for meeting federal clean air standards for the State of California. Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a State standard, and are not used as a basis for

TABLE 4.8-2

STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS AND SFBAAB ATTAINMENT STATUS

Pollutant	Averaging Time	State Standards[a]		Federal Standards[b]	
		Concentration	Attainment Status	Concentration[c]	Attainment Status
Ozone	1 hour	0.09 ppm (180 µg/m^3)	N	N/A	–
	8 hour	0.07 ppm (137 µg/m^3)	N	0.075 ppm	Marginal N[d]
Carbon Monoxide	1 hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m^3)	A
	8 hour	9 ppm (10 mg/m^3)	A	9 ppm (10 mg/m^3)	A
Nitrogen Dioxide	1 hour	0.18 ppm (339 µg/m^3)	A	0.10 ppm [e]	U
	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	N/A	0.053 ppm (100 µg/m^3)	A
Sulfur Dioxide[f]	1 hour	0.25 ppm (655 µg/m^3)	A	0.075 ppm (196 µg/m^3)	A
	24 hour	0.04 ppm (105 µg/m^3)	A	0.14 ppm (365 µg/m^3)	A
	Annual arithmetic mean	N/A	–	0.03 ppm (80 µg/m^3)	A
Particulate Matter (PM_{10})	24 hour	50 µg/m^3	N	150 µg/m^3	U
	Annual arithmetic mean	20 µg/m^3	N	N/A	–
Fine Particulate Matter ($PM_{2.5}$)	24 hour	N/A	–	35 µg/m^3 [g]	N
	Annual arithmetic mean	12 µg/m^3	N[g]	15 µg/m^3	A
Sulfates	24 hour	25 µg/m^3	A	N/A	–
Lead	30 day average	1.5 µg/m^3	–	N/A	A
	Calendar quarter	N/A	–	1.5 µg/m^3	A
	Rolling 3-month Average	N/A	–	0.15 µg/m^3	U/A
Hydrogen Sulfide	1 hour	0.03 ppm (0.15 µg/m^3)	U	N/A	–
Vinyl Chloride[h]	24 hour	0.01 ppm (26 µg/m^3)	–	N/A	–

TABLE 4.8-2 (CONTINUED)
STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS AND SFBAAB ATTAINMENT STATUS

NOTES: A = attainment; N = nonattainment; U = unclassified; N/A = not applicable or no applicable standard; ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter; – = not indicated or no information available.

[a] State ambient air quality standards (California). The state standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and suspended particulate matter (PM_{10}) are values that are not to be exceeded. All other state standards shown are values not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM10 annual standard), then some measurements may be excluded. In particular, measurements are excluded that the CARB determines would occur less than once per year on the average.

[b] National ambient air quality standards. National standards shown are the "primary standards" designed to protect public health. National standards, other than for ozone and particulates, and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the three-year average of the fourth highest daily concentration is 0.075 ppm (775 ppb) or less. The 24-hour PM_{10} standard is attained when the three-year average of the 99th percentile of monitored concentrations is less than 150 $\mu g/m^3$. The 24-hour $PM_{2.5}$ standard is attained when the three-year average of 98th percentile is less than 35 $\mu g/m^3$.

[c] National air quality standards are set by U.S. EPA at levels determined to be protective of public health with an adequate margin of safety.

[d] On September 22, 2011, the U.S. EPA announced it would implement the current 8-hour ozone standard of 0.075 ppm. Initial area designations were issued on March 2012. Alameda and Contra Costa Counties were designated by the U.S. EPA as Marginal Nonattainment. Current designations available online at: http://www.epa.gov/oaqps001/greenbk/ancl.html.

[e] To attain this standard, the three-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).

[f] On June 2, 2010, the U.S. EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the three-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO_2 national standards must continue to be used, however, until one year following U.S. EPA initial designations of the new 1-hour SO_2 national standard. The U.S. EPA expects to designate areas by June 2012.

[g] The U.S. EPA designated the SFBAAB as nonattainment of the $PM_{2.5}$ standard on October 8, 2009. The effective date of the designation is December 14, 2009 and the BAAQMD has three years to develop a plan—called a State Implementation Plan (SIP)—that demonstrates the SFBAAB will achieve the revised standard by December 14, 2014. The SIP for the new $PM_{2.5}$ standard must be submitted to the U.S. EPA by December 14, 2012.

[h] The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure below which there are no adverse health effects determined.

SOURCE: BAAQMD (2012b)

designating areas as nonattainment. The SFBAAB attainment status with respect to state standards is summarized in Table 4.8-2.

LOCAL STANDARDS

The Bay Area Air Quality Management District (BAAQMD) is the regional agency responsible for air quality regulation within the SFBAAB. The BAAQMD regulates air quality through its planning and review activities. The BAAQMD has permit authority over most types of stationary emission sources and can require stationary sources to obtain permits, and can impose emission limits, set fuel or material specifications, or establish operational limits to reduce air emissions. The BAAQMD regulates new or expanding stationary sources of toxic air contaminants.

In September 2010, the BAAQMD adopted the *Bay Area 2010 Clean Air Plan* (BAAQMD, 2010b), which updates the *Bay Area 2005 Ozone Strategy* and complies with state air quality planning requirements as codified in the California Health and Safety Code. While steady progress in reducing ozone levels in the SFBAAB has been achieved, the region is designated non-attainment for both the 1-

and 8-hour state ozone standards. In addition, emissions of ozone precursors in the SFBAAB contribute to air quality problems in neighboring air basins. Under these circumstances, state law requires the CAP to include all feasible measures to reduce emissions of ozone precursors and to reduce the transport of ozone precursors to neighboring air basins. The 2010 CAP addressed four categories of pollutants: ozone and ozone precursors (ROG and NO_X); particulate matter (primarily $PM_{2.5}$), air toxics, and GHGs. The CAP contains 55 control strategies that can be grouped into the following categories:

- 18 stationary source measures
- 10 mobile source measures
- 17 transportation control measures
- 6 land use and local impact measures
- 4 energy and climate measures

Under CEQA, the BAAQMD is a commenting responsible agency on air quality within its jurisdiction or impacting its jurisdiction. The BAAQMD reviews projects to ensure that they would: (1) support the primary goals of the latest Air Quality Plan; (2) include applicable control measures from the Air Quality Plan; and (3) not disrupt or hinder implementation of any Air Quality Plan control measures.

The BAAQMD adopted its updated *CEQA Air Quality Guidelines* to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the SFBAAB. These guidelines provide BAAQMD-recommended procedures for evaluating potential air quality and GHG impacts during the environmental review process consistent with CEQA requirements. In addition to providing new thresholds for GHG emissions, the 2010 BAAQMD *CEQA Guidelines* provided updated significance thresholds for criteria pollutants and superseded the BAAQMD's previous CEQA guidance titled, *BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans* (1999).

On March 5, 2012, the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the Thresholds. The court issued a writ of mandate ordering the BAAQMD to set aside the Thresholds and cease dissemination of them until the BAAQMD had complied with CEQA. On August 13, 2013, the California Court of Appeal reversed the Alameda County Superior Court judgment that invalidated the BAAQMD's CEQA thresholds of significance. The Court directed that the Superior Court vacate the writ of mandate issued in March 2012, ordering the BAAQMD to set aside its June 2010 resolution (Res. #2010-06) "Adopting Thresholds for Use in Determining the Significance of Projects' Environmental Effects Under the California Environmental Quality Act." Although the California Supreme Court has granted review in the litigation to hear one particular issue of law, the granting of review does not alter the result in the Court of Appeal, though the latter court's decision is no longer a published, citable precedent. And the legal cloud created by the trial court decision no longer exists. Local agencies such as the City of Pleasanton may rely on the BAAQMD thresholds.

Pleasanton General Plan. Pleasanton's General Plan, *2005 Pleasanton Plan 2025*, includes an Air Quality and Climate Change Element. The following goals, policies, and programs in this Element would pertain to the proposed project and project consistency is discussed below:

General Plan Policies	Project Analysis
Air Quality and Climate Change Element *Policy 1: Adhere to federal and state air quality standards for local pollutants of concern.* *Program 1.1: Incorporate measures in conditions of approval for development projects to reduce grading, construction, and operations-related air quality impacts.* *Policy 5: Review proposed projects for their potential to impact air quality conditions.* *Program 5.1: Include air quality as a factor in the City's environmental review process. Encourage development plans which minimize negative impacts on air quality.*	As indicated in Table 4.8-3, project construction would have the potential to exceed BAAQMD significance thresholds for NO_X when maximum daily emissions occur during the demolition, grading, and construction phases, a potentially significant impact. However, with implementation of Mitigation Measures 4.8-1 and 4.8-2, this impact (Impact 4.8-1) would be reduced to less than significant.
Policy 3: Separate air pollution sensitive land uses from sources of air pollution. *Program 3.1: Locate new sensitive receptors, such as residences… away from point sources of air pollution and busy traffic corridors following the California Air Resource Board's recommendations.*	Project residences would be located away from busy traffic corridors and point sources of air pollution.
Policy 7: Provide leadership to Pleasanton residents and businesses by implementing all technology-based air-pollutant reduction programs that are reasonable and feasible. *Program 7.6: Adopt a measure requiring large vehicles (gross weight rating of greater than 14,000 pounds) and offroad equipment owned by the City and/or private contractors to restrict engine idling to less than 5 consecutive minutes and to prohibit engine idling in parking lots, where feasible.*	The project will be required to implement Mitigation Measure 4.8-1f, which restricts idling of construction equipment operated on the project site to five minutes.

4.8.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based upon the criteria presented in Appendix G of the *CEQA Guidelines*, a project normally would have a significant effect on the environment if it would:

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

Exercising its own discretion as lead agency, the City of Pleasanton has decided for this EIR to rely on the thresholds within the *Options and Justification Report* (dated October 2009) prepared by the BAAQMD. The BAAQMD *Options and Justification Report* establishes thresholds based on substantial evidence and the thresholds are consistent with the thresholds outlined within the 2010 BAAQMD *CEQA Air Quality Guidelines*. The thresholds have been developed by the BAAQMD in order to attain state and national ambient air quality standards. Therefore, projects below these thresholds would not violate an air quality standard and would not contribute substantially to an existing or projected air quality violation. Although the BAAQMD failed to comply with CEQA before completing its 2010 recommendations, City staff believes that these recommendations, which are listed as follows, still represent the best available science on the subject of what constitute significant air quality effects in the SFBAAB:

- 54 pounds/day NO_X and ROG
- 82 pounds/day PM_{10}
- 54 pounds/day $PM_{2.5}$
- CO: A quantitative CO impact analysis is required (comparing project emissions to the CAAQS), if none of the following are met:
  - Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
  - The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
  - The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

In addition to establishing the above significance thresholds for criteria pollutant emissions, the BAAQMD also recommended (BAAQMD, 2009) the following quantitative thresholds to determine the significance of construction-related and operational emissions of toxic air contaminants from individual project and cumulative sources on cancer and non-cancer health risks:

- Increased cancer risk of >10.0 in a million for individual projects and >100 in a million (from all local sources) for cumulative sources
- Increased non-cancer risk of >1.0 Hazard Index (Chronic or Acute) for individual projects and >10.0 Hazard Index (from all local sources) for cumulative sources
- Ambient $PM_{2.5}$ increase: >0.3 $\mu g/m^3$ annual average for individual projects and >0.8 $\mu g/m^3$ annual average (from all local sources) for cumulative sources

APPROACH TO ANALYSIS

This air quality impact analysis considers construction and operational impacts associated with the

proposed project. Construction-related and operational emissions are evaluated consistent with the methodologies outlined in the BAAQMD CEQA Guidelines for assessing and mitigating air quality impacts (BAAQMD, 2012a), including quantification of criteria pollutants from the project's construction-related exhaust emissions and operational emissions. Estimated construction-related an operational emissions are then compared to BAAQMD significance thresholds to determine the significance of these emissions.

Consistent with the BAAQMD CEQA Guidelines, this analysis evaluates potential health risk and hazard impacts could occur at sensitive receptors located within 1,000 feet from the project's diesel emission sources during project construction. Thus, human health risks and hazards associated with project construction are calculated at the Maximally-Exposed Individual (MEI) within the 1,000-foot zone of influence. This analysis evaluates risk and hazard impacts on the MEI due to the project's construction-related TAC emissions. Cumulative risk and hazard impacts associated with the project's construction-related emissions in combination with emissions from other cumulative projects within the 1,000-foot zone of influence are also evaluated.

CONSTRUCTION IMPACTS

Impact 4.8-1: Construction activities associated with proposed construction would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. (Less than Significant with Mitigation)

The 195-acre project site is currently undeveloped except for various buildings associated with the former agricultural use. Project development would involve demolition of existing structures, and development of proposed roadways, infrastructure, and 50 homes on approximately 19.6 acres. Emissions from the project's construction equipment and vehicles would be generated from multiple sources, including heavy mobile equipment and delivery/haul trucks, worker vehicles, and semi-stationary sources such as air compressors and generators. Construction-related criteria pollutant emissions were calculated for the project using the BAAQMD-recommended CalEEMod (Version CalEEMod.2011.1.1) and the maximum daily emissions that would be associated with project construction are summarized in **Table 4.8-3**. As indicated in this table, project construction would have the potential to exceed BAAQMD significance thresholds for NO_X when maximum daily emissions occur during the demolition, grading, and construction phases, a potentially significant impact. However, with implementation of emissions controls such as requiring use of Tier 3 engines in certain types of heavy equipment or limiting equipment operating times, this impact would be reduced to less than significant (see mitigated emissions levels in Table 4.8-3). Whether or not a project's emissions exceed the BAAQMD's previously-recommended significance thresholds, the BAAQMD recommends that all projects implement the *Basic Construction Mitigation Measures.* For projects that exceed the significance thresholds, the BAAQMD recommends implementation of *Additional Construction Mitigation Measures* and these measures include use of off-road equipment that reduce NO_X emissions (i.e., use of Tier 3 engines). This additional measure is included in Mitigation Measure 4.8-2 and would reduce the project's NO_X emissions to a less-than-significant level.

TABLE 4.8-3

PROJECT CONSTRUCTION ACTIVITY CRITERIA POLLUTANT EMISSIONS

	Maximum Daily Emissions (pounds per day)					
Construction Year and Scenario[a]	**ROG**	**NOx**	**CO**	**SO_2**	**PM10[b]**	**PM2.5[b]**
2012						
Unmitigated Equipment	9.7	**77.3**	46.6	0.1	6.5 (3.9)	3.9 (3.9)
Mitigated Equipment[c]	6.2	40.0	43.2	0.1	4.9 (2.7)	2.7 (2.7)
2013						
Unmitigated Equipment	12.0	**97.6**	54.5	0.1	13.7 (4.6)	7.9 (4.6)
Mitigated Equipment[c]	8.0	50.4	58.2	0.1	7.1 (3.4)	4.7 (3.4)
2014						
Unmitigated Equipment	28.6	32.9	25.0	0.1	3.0 (2.7)	2.8 (2.7)
Mitigated Equipment[c]	28.6	32.2	24.7	0.1	3.0 (2.7)	2.8 (2.7)
CEQA Significance Thresholds	54	54	-		82	54

NOTE: **old** values indicate that the BAAQMD's previously-recommended significance threshold is exceeded.

[a] Based on the proposed development size and areal extent, RoadMod formulates the following construction assumptions: Demolition would involve hauling of 15,000 s.f. of building debris over 20 days and use of 1 Concrete Saw, 3 Excavators, and 2 Dozers. Grading would occur over 29 days using 2 Excavators, 1 Grader, 1 Dozer, 2 Scrapers, and 2 Tractor/Loader/Backhoes. Construction would occur over 299 days using 1 Crane, 3 Forklifts, 1 Generator Set, 3 Tractor/Loader/Backhoes, and 1 Welder. Paving would occur over 20 days using 2 Pavers, 2 Paving Equipment, and 2 Rollers.

[b] XX: Total particulate emissions, including fugitive dust and equipment-related particulate exhaust emissions; (XX): equipment-related particulate exhaust emissions only.

[c] Mitigated condition for NO_X assumes Tier 3 rated engines would be used for Engines for Excavators, Dozers, Scrapers and Tractor/Loader/Backhoes only. No mitigation applied to other equipment.

SOURCE: CalEEMod computer model using OFFROAD2011 emissions factors (see (See Appendix D for model output).

Mitigation Measure 4.8-1: *To limit the project's construction-related dust and criteria pollutant emissions, the following BAAQMD-recommended Basic Construction Mitigation Measures shall be included in the contractor specifications for the proposed project:*

a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d. All vehicle speeds on unpaved roads shall be limited to 15 mph.

e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure

Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

g. *All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.*

h. *A publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints shall be posted at the site. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.*

Mitigation Measure 4.8-2: *To reduce the project's construction-related NO_X emissions, the following provisions shall be included in the contractor specifications for the proposed project:*

a. *To reduce NO_X during construction, all excavators, dozers, scrapers, tractors, loaders, and backhoes used for project construction shall be equipped with Tier 3-rated engines. Alternatively, the number of pieces of diesel-powered equipment operating simultaneously could be limited in order to achieve the same level of NO_X reduction.*

b. *All contractors shall use equipment that meets the CARB's most recent certification standard for off-road heavy-duty diesel engines for a given model year engine.*

Impact Significance After Mitigation: Less than significant.

Impact 4.8-2: Project construction would not expose sensitive receptors to substantial pollutant concentrations. (Less than Significant)

Project construction would utilize diesel-powered equipment such as bulldozers, generators, and cranes. Operation of such equipment would generate emissions of toxic air contaminants (TACs), including diesel particulate matter (DPM), and particulate matter with aerodynamic resistance diameters of less than 2.5 micrometers ($PM_{2.5}$). Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The California Air Resources Board (CARB) has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, pregnant women in their last trimester, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. Sensitive receptors within the immediate vicinity of the project site include residential uses immediately west of the site near Lund Ranch Road, Rutledge Place, and Middleton Place, 500 feet or more to the southwest near Sunset Creek Lane, and approximately 0.4 mile to the north on Casterson Court.

Since there are sensitive receptors located less than 100 feet from the project site, there is the potential for the project's construction-related DPM emissions to exceed the BAAQMD's previously-recommended risk and hazard significance thresholds of 10 excess cancer cases in a million, a hazard index (HI) of 1 for chronic and acute non-cancer risks, and an annual $PM_{2.5}$ concentration of 0.3 $\mu g/m^3$. Therefore, a

screening-level individual cancer analysis was conducted to determine the maximum inhalation cancer risk from project-related construction activities at the closest sensitive receptor. The EPA AERSCREEN air dispersion model was used to evaluate concentrations of DPM and $PM_{2.5}$ from diesel exhaust. The AERSCREEN model was developed to provide an easy to use method of obtaining pollutant concentration estimates and is a single source Gaussian plume model which provides a maximum 1-hour ground-level concentration. For the Lund Ranch construction area, the predicted MEI location is 245 meters from the center of the site. This MEI distance includes existing residences to the southwest, west, and northwest. The AERSCREEN model output is included in Appendix D of this report.

Results of the health risk analysis are presented in **Table 4.8-4** and the project's annual average $PM_{2.5}$ emissions, cancer and non-cancer risks are listed in this table. Recent research has determined that young children are substantially more sensitive to DPM exposure risk. If exposure occurs in infants to toddlers, an age sensitivity factor (ASF) of 10 should be applied. For young children through mid-teens, the ASF is 3. Cancer risks for infants, children/teens, and adults are listed in Table 4.8-4. As indicated in this table, the project's construction-related DPM emissions would not exceed BAAQMD's previously-recommended significance thresholds for cancer and non-cancer health risks (including the highest age sensitivity factor for infants, up to 2 years in age) and therefore, would result in temporary health risks that are less than significant to all age groups.

Mitigation Measure 4.8-2: *None required.*

Impact 4.8-3: Construction of the proposed project would have the potential to generate odors. (Less than Significant)

During project construction, nuisance diesel odors associated with operation of construction equipment could occur at adjacent uses. However, this effect would be localized, primarily affecting the closest residences, and would be occasional and temporary in nature. In addition, the closest homes are located to the west and upwind of the site most of the time, which would further reduce the potential for nuisance odor problems. Due to the temporary nature of project construction, this impact would be *less than significant.*

Mitigation Measure 4.8-3: *None required.*

OPERATIONAL IMPACTS

Impact 4.8-4: Project operations would not violate air quality standards or contribute substantially to an existing air quality violation. (Less than Significant)

Using the CalEEMod computer model and the project's estimated trip generation of 500 trips per day, operational criteria pollutant emissions were estimated and results are presented in **Table 4.8-5**. As indicated in this table, project-related operational emissions would not exceed the BAAQMD's significance thresholds for criteria pollutants. Therefore, project operation would have a less-than-significant impact on regional air quality.

TABLE 4.8-4
PROJECT-RELATED CONSTRUCTION HEALTH RISKS

Parameter	$PM_{2.5}$ Exposure, Cancer Risk, and Non-cancer Chronic Hazard Index from Project Construction Activities
Individual Project PM2.5 Increase	
1-Hour PM2.5	0.6963 µg/m^3
Annual Average PM2.5	0.06963 µg/m^3
Annual Average $PM_{2.5}$ Significance Threshold	0.3 µg/m^3
Exceeds Threshold?	No
Individual Project Cancer Risk	
Infant Cancer Risk[a] (ASF = 10)	4.3 x 10^{-6}
Youth Cancer Risk[a] (ASF = 3)	1.3 x 10^{-6}
Adult Cancer Risk[a] (ASF = 1)	0.4 x 10^{-6}
Cancer Risk Significance Threshold	Excess Cancer Risk >10 x 10^{-6} (10 in a million)
Exceeds Threshold?	No
Individual Project Chronic Non-Cancer Risk	
Chronic Non-cancer Hazard Index = (Annual) / 5)	0.014
Chronic Non-cancer Significance Threshold	Hazard Index > 1
Exceeds Threshold?	No
Individual Project Acute Non-Cancer Risk	
Acute Non-cancer Hazard Index[b]	0.081
Acute Non-cancer Significance Threshold	Hazard Index > 1
Exceeds Threshold?	No

NOTES:
$PM_{2.5}$ represents combustion $PM_{2.5}$ from DPM and does not include fugitive dust.
µg/m^3 = micrograms per cubic meter; ASF = age-sensitivity factor.
[a] Assumes individual cancer risk of 300 x 10-6 per µg/m^3 (ASF-weighted)
[b] Based upon the ratio of speciated organic gases to DPM in diesel exhaust relative to peak 1-hour concentrations

SOURCE: U.S. EPA AERSCREEN, 2011 (See Appendix D for model output)

TABLE 4.8-5
PROJECT OPERATIONAL CRITERIA POLLUTANT EMISSIONS

	Daily Emissions (pounds/day)					
Emissions Source	**ROG**	**NOx**	**CO**	**SO_2**	**PM_{10} Total**	**$PM_{2.5}$ Total**
Area Source Emissions	49.0	0.8	67.7	0.1	9.1	9.1
Energy-Related Emissions	0.1	0.5	0.2	0.0	0.0	0.0
Mobile Source Emissions	2.7	5.0	23.8	0.0	3.9	0.2
Total Operational Emissions	51.7	6.3	91.8	0.1	13.0	9.4
CEQA Significance Thresholds	54	54	-	-	82	54

SOURCE: CalEEMod computer model, 2011 (See Appendix D for model output)

Mitigation Measure 4.8-4: *None required.*

Impact 4.8-5: Project operations would not expose sensitive receptors to substantial pollutant concentrations. (No Impact)

The proposed residences would not be a source of TAC or PM2.5 emissions and therefore, there would be no operational risk and hazard impacts associated with operation of the project.

Mitigation Measure 4.8-5: *None required.*

Impact 4.8-6: Project operations would not create objectionable odors affecting a substantial number of people. (No Impact)

Odors generated by the proposed residential use would be typical of residential uses, and any potential nuisance odor impacts are expected to be less than significant.

Mitigation Measure 4.8-6: *None required.*

Impact 4.8-7: Implementation of the proposed project would not conflict with or obstruct implementation of the 2010 Clean Air Plan. (Less than Significant)

Since proposed residential use would be consistent with designated use in the General Plan, the project also would be consistent with Clean Air Plan. The most recently adopted air quality plan for the SFBAAB is the BAAQMD's *2010 Clean Air Plan* (CAP), which is a comprehensive plan aimed at improving Bay Area air quality and protecting public health. The CAP defines a control strategy for implementation by the BAAQMD to reduce emissions and decrease ambient concentrations of harmful pollutants (ground-level ozone and its key precursors, ROG and NO_X), as well as to safeguard public health by reducing exposure to the air pollutants that pose the greatest health risks (particulate matter, primarily $PM_{2.5}$ and precursors to secondary $PM_{2.5}$).

As indicated above in Section 5.8.2.2, the CAP contains 55 control measures under the following categories: stationary-source measures, mobile-source measures, transportation control measures, land use and local impact measures, and energy and climate measures. The short- and long-term criteria pollutant emissions associated with the project would not hinder the long-term air quality planning goals of the 2010 CAP. The project's short-term construction emissions would be reduced to below the BAAQMD significance thresholds for construction-related criteria pollutants with required implementation of NO_X reduction control technologies as specified in Mitigation Measure M-AQ-2 (see Impact 4.8-1, above, for description) and operational emissions would not exceed the BAAQMD's significance thresholds for operational criteria pollutants. Therefore, the project is considered to be consistent with the goals and strategies in the 2010 CAP.

Mitigation Measure 4.8-7: *None required.*

CUMULATIVE IMPACTS

Impact 4.8-8: The project would contribute to cumulative increases in criteria pollutants during project construction and operation. (Less than Significant)

To address cumulative impacts on regional air quality, the Bay Area Air Quality Management District (BAAQMD) has established thresholds of significance for construction-related and operational criteria pollutants emissions. These thresholds represent the levels at which a project's individual emissions of criteria pollutants and precursors would result in a cumulatively considerable contribution to the San Francisco Bay Area Air Basin's (SFBAAB's) existing air quality conditions. If a project's emissions exceed these thresholds, the project would result in a cumulatively significant impact. As indicated in Impacts 4.8-1 and 4.8-4, the project's construction-related and operational criteria pollutant emissions would not exceed the applicable BAAQMD significance thresholds for criteria pollutants. Therefore, the project's emissions associated would not be cumulatively considerable, a less-than-significant impact.

The BAAQMD's CEQA Guidelines also require evaluation of the project's contribution to cumulative TAC exposure of sensitive receptors in the project vicinity by considering all TAC permitted stationary and mobile sources within 1,000 feet of the project site. According to BAAQMD records (BAAQMD, 2012c), there are no stationary emission sources permitted by the BAAQMD or major roadway sources (>10,000 ADT) located within 1,000 feet of the project site. There are also no other approved or pending projects located within 1,000 feet of the project site that would be under construction at the same time as the proposed project. The cumulative cancer risk and non-cancer (chronic and acute) hazards would therefore only consist of project's contributions as listed in Table 4.8-4. These estimated levels would be well below BAAQMD's cumulative risk and hazard thresholds of 100 excess cancer cases in a million, 10 Hazard Index (chronic and acute non-cancer risks), and annual average $PM_{2.5}$ concentrations of 0.8 $\mu g/m^3$. Therefore, the project's contribution to cumulative risk and hazard impacts would not be cumulatively considerable, a less-than-significant impact.

Mitigation Measure 4.8-8: *None required.*

REFERENCES - AIR QUALITY

Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*. June 2010, updated in May 2011 and May, 2012a. Available online at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx. Accessed on March 19, 2014.

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4.9 GREENHOUSE GAS EMISSIONS

4.9.1 ENVIRONMENTAL SETTING

GHGS AND CLIMATE CHANGE

Gases that trap heat in the atmosphere are referred to as GHGs because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse. The most common GHGs are carbon dioxide (CO_2) and water vapor (H_2O),[1] but there are several others that are important, including methane (CH_4), nitrous oxide (N_2O), ozone (O_3), chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6).

While the presence of the primary GHGs in the atmosphere are naturally occurring, CO_2, CH_4, and N_2O are mainly the result of human activities, which have accelerated the emission rate of these compounds into the earth's atmosphere. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. N_2O is also associated with agricultural operations such as fertilization of crops. Other GHGs, like hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are generated during certain industrial processes. GHGs are typically reported in "carbon-dioxide-equivalent" measures (CO_2e).[2]

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to climate change. The City of Pleasanton, like the rest of the cities in California, is likely to face extreme challenges in the 21st Century due to climate change, with its expected widespread economic, social, and environmental consequences. Although Pleasanton is not susceptible to the projected rises in sea level due to melting ice caps and warming oceans, it will still be impacted directly and indirectly on many fronts as global temperatures rise. Heat waves, extreme weather events, increased levels of air pollution, water supply challenges resulting from a diminishing Sierra snowpack, and higher electricity demand in the hot summer months are a few examples of potential direct impacts to the City (City of Pleasanton, 2012).

GHG EMISSIONS SUMMARY

Since 2001, the California Air Resources Board (CARB) estimates that California's gross emissions of greenhouse gases decreased by 6 percent, from about 478.4 million metric tons of CO_2e (MMT CO_2e) in 2001 to 448.1 MMT CO_2e in 2011, with a maximum of 489.2 MMT CO_2e in 2004. The CARB found that the transportation sector continues to be the largest source, at 37.6 percent of the state's total GHG

[1] Ozone that is not directly emitted but formed from other gases in the troposphere (the lowest level of the earth's atmosphere) also contributes to the retention of heat.

[2] Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon-dioxide-equivalents," which represent a weighted average based on the heat absorption (or "climate change") potential of each gas. This allows the total GHG emissions resulting from a project or activity to be expressed as a single number that represents the total carbon footprint resulting from that project or activity.

emissions, followed by electricity generation (both in-state and out-of-state) (about 23 percent) and industrial sources (about 21 percent). Commercial and residential fuel use (primarily for heating) accounted for about 10 percent of the state's total GHG emissions (CARB, 2011).

In the Bay Area, fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) and the industrial and commercial sectors are the two largest sources of GHG emissions, each accounting for approximately 36 percent of the Bay Area's 95.8 MMT CO_2e emitted in 2007. Electricity generation accounted for approximately 16 percent of the Bay Area's GHG emissions, followed by residential fuel usage at 7 percent, off-road equipment at 3 percent, and agriculture at 1 percent (BAAQMD, 2010).

A baseline 2005 GHG Inventory was completed for the community of Pleasanton. It is estimated that the city's GHG emissions total 770,884 MT CO_2e. Transportation (both on-road and off-road vehicles) accounted for the majority of the overall community-wide emissions in 2005 (55.4%). Contributions from other sectors include: commercial/industrial energy (electricity and natural gas) 19.7%, residential energy 14.8%, water and wastewater 4.4%, solid waste 5.0%, and municipal operations 0.7%. If the City were to continue its 2005 patterns of travel, energy consumption, waste generation and disposal, water consumption, it would be business-as-usual. Under a business-as-usual scenario, which includes the measures listed above, Pleasanton community-wide emissions are projected to increase to approximately 961,549 MT CO_2e in the year 2020, and 1,032,990 in 2025. Relative to the baseline year 2005, this represents increases of 24.7% and 34.0% by 2020 and 2025, respectively (City of Pleasanton, 2012).

4.9.2 REGULATORY AND PLANNING FRAMEWORK

FEDERAL REGULATIONS

The Federal Clean Air Act (FCAA) requires the EPA to define national ambient air quality standards (national standards) to protect public health and welfare in the United States. The FCAA does not specifically regulate GHG emissions; however, on April 2, 2007 the U.S. Supreme Court in *Massachusetts v. U.S. Environmental Protection Agency*, determined that GHGs are pollutants that can be regulated under the FCAA. The EPA adopted an endangerment finding and cause or contribute finding for GHGs on December 7, 2009. Under the endangerment finding, the Administrator found that the current and projected atmospheric concentrations of the six, key, well-mixed GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) threaten the public health and welfare of current and future generations. Under the cause or contribute finding, the Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

Based on these findings, on April 1, 2010, the EPA finalized the light-duty vehicle rule controlling GHG emissions. This rule confirmed January 2, 2011 as the earliest date that a 2012 model year vehicle meeting these rule requirements may be sold in the United States. On May 13, 2010, the EPA issued the final GHG Tailoring Rule. This rule set thresholds for GHG emissions that define when permits under

the Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. Implementation of the federal rules is expected to reduce the level of emissions from new motor vehicles and large stationary sources.

STATE REGULATIONS

Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

Executive Order S-1-07. Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40% of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10% by 2020. This order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

Executive Order S-3-05. Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80% below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (Cal/EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team (CAT), made up of members from various State agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

Executive Order S-13-08. Executive Order S-13-08 seeks to enhance the State's management of climate impacts including sea level rise, increased temperatures, shifting precipitation, and extreme weather events by facilitating the development of State's first climate adaptation strategy. This will result in consistent guidance from experts on how to address climate change impacts in the State of California.

Executive Order S-14-08. Executive Order S-14-08 expands the State's Renewable Energy Standard to 33% renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33% of electricity sold in the State come from renewable energy by 2020. CARB adopted the "Renewable Electricity Standard" on September 23, 2010, which requires 33% renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-20-04. Executive Order S-20-04, the California Green Building Initiative, (signed into law on December 14, 2004), establishes a goal of reducing energy use in State-owned buildings by 20% from a 2003 baseline by 2015. It also encourages the private commercial sector to set the same goal. The initiative places the California Energy Commission (CEC) in charge of developing a building efficiency benchmarking system, commissioning and retro-commissioning (commissioning for existing commercial buildings) guidelines, and developing and refining building energy efficiency standards under Title 24 to meet this goal.

Executive Order S-21-09. Executive Order S-21-09, 33% Renewable Energy for California, directs CARB to adopt regulations to increase California's Renewable Portfolio Standard (RPS) to 33% by 2020. This builds upon SB 1078 (2002), which established the California RPS program, requiring 20% renewable energy by 2017, and SB 107 (2006), which advanced the 20% deadline to 2010, a goal which was expanded to 33% by 2020 in the 2005 Energy Action Plan II.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). California passed the California Global Warming Solutions Act of 2006 (AB 32; *California Health and Safety Code* Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Low Carbon Fuel Standard. The Low Carbon Fuel Standard (LCFS) requires fuel providers in the state to decrease lifecycle fuel carbon intensity by 2020. It is expected that the LCFS will reduce tailpipe carbon emissions from passenger vehicles and heavy-duty trucks by 10% by 2020. CARB identified specific eligibility criteria in April 2009, and implementation is beginning in 2012 as a result of the enforcement injunction being lifted by the Ninth Circuit Court of Appeals pending a final ruling on the appeal (CARB, 2014).

Assembly Bill 1493. AB 1493 (also known as the Pavley Bill) requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHG emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is non-commercial personal transportation in the State."

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 and adoption of 13 CCR Section 1961.1 require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty weight classes for passenger vehicles (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily to transport people), beginning with the 2009 model year. Emissions limits are reduced further in each model year through 2016. When fully phased in, the near-term standards will result in a reduction of about 22% in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term standards will result in a reduction of about 30%.

Senate Bill 97. SB 97, signed in August 2007 (Chapter 185, Statutes of 2007; PRC Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the Governor's Office of Planning and Research (OPR) and the State Natural Resources Agency to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions (or the effects of GHG emissions), as required by CEQA.

The Natural Resources Agency adopted the *CEQA Guidelines Amendments* prepared by OPR, as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the *CEQA Guidelines Amendments*, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The *CEQA Guidelines Amendments* became effective on March 18, 2010. In response to these amendments, the Bay Area Air Quality Management District (BAAQMD) established significance thresholds for the Bay Area (discussed below under BAAQMD) to determine the significance of a project's GHG emissions and level of GHG reduction needed to mitigate a project's impact to less than significant. One of these thresholds is "compliance with a Qualified Climate Action Plan." The City of Pleasanton adopted such a plan (Pleasanton Climate Action Plan) in February 2012 and GHG reduction measures are presented below and the project's consistency with these measures is discussed below under Impact 4.9-3.

Senate Bill 375. SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

Senate Bill 1078 and 107. SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010.

Senate Bill 1368. SB 1368 (Chapter 598, Statutes of 2006) is the companion bill of AB 32 and was signed into law in September 2006. SB 1368 required the California Public Utilities Commission (CPUC) to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007. SB 1368 also required the CEC to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a baseload combined-cycle, natural gas–fired plant. Furthermore, the legislation states that all electricity provided to California, including imported electricity, must be generated by plants that meet the standards set by CPUC and CEC.

Senate Bill X1 2. SB X1 (Chapter 1, Statutes of 2011, 1st Ex. Sess., ch. 1) codified in statute the State's obligation to produce at least 33% of electricity from renewable sources. (See Pub. Resources Code, § 25740.)

CARB Scoping Plan. In December 2008, pursuant to AB 32, the CARB adopted the *California Climate Change Scoping Plan*, which outlines measures to attain the 2020 GHG reduction limits. To meet these goals, California must reduce its GHG emissions by 30 percent below projected 2020 business-as-usual emissions levels, or about 15 percent from today's levels (CARB, 2010a). The Scoping Plan estimates a reduction of 174 MMT CO_2e (about 191 million U.S. tons) from the transportation, energy, agriculture, forestry, and high climate-change-potential sectors (see **Table 4.9-1** below). The CARB has identified an implementation timeline for the GHG reduction strategies in the Scoping Plan (CARB, 2009). Some of these measures may require new legislation to implement, some will require subsidies, some have already been developed, and some will require additional effort to evaluate and quantify. Additionally, some emission reduction strategies may require environmental review under state regulations (CEQA) or federal regulations (the National Environmental Policy Act, or NEPA). In August 2011, the Functional Equivalent Document for the Scoping Plan was amended and re-approved by the CARB.

CARB began the cap-and-trade portion of the Scoping Plan on January 1, 2012 and the enforceable compliance obligation began on January 1, 2013. The program is a central element of AB 32 and covers major sources of GHG emissions in the State such as refineries, power plants, industrial facilities, and transportation fuels. The regulation includes an enforceable GHG cap that will decline over time. CARB will distribute allowances, which are tradable permits, equal to the emission allowed under the cap. In addition, CARB is implementing carbon offsets to reduce GHG emissions in sectors such as agriculture and forestry that are not included directly under the cap-and-trade regulation. For example, forests can be managed to ensure that they increase the total amount of carbon stored in the trees, thus removing additional carbon dioxide from the atmosphere. Each offset credit equals one metric ton of carbon dioxide (CARB, 2012). The proposed project would not be required to comply with the CARB's Cap-and-Trade Program, although carbon offsets could be utilized if necessary.

TABLE 4.9-1

CALIFORNIA CLIMATE CHANGE SCOPING PLAN – ESTIMATED GHG REDUCTIONS

Sector	Estimated GHG Reduction by 2020 (MMT CO_2e)	
Estimated Reductions Resulting from the Combination of Cap-and-Trade Program and Complementary Measures		*146.7*
- Transportation Sector (Vehicle Emission Standards, Low Carbon Fuel Standard, Regional Transportation-related GHG Targets,[a] Vehicle Efficiency Measures Goods Movement, Medium/Heavy Duty Vehicle Efficiency Measures, High-Speed Rail)	62.3	
- Energy Efficiency	26.3	
- Renewables Portfolio Standard (33% by 2020)	21.3	
- Million Solar Roofs	2.1	
- Industrial Measures	0.3	
- Additional Reductions Needed to Achieve the GHG Cap	34.4	
Estimated Reductions from Uncapped Sources/Sectors		*27.3*
- High Global Warming Potential Gas Measures	20.2	
- Sustainable Forests	5.0	
- Industrial Measuares (for sources not covered under cap-and-trade program)	1.1	
- Recycling and Waste (landfill methane capture)	1.0	
Total Reductions Counted Towards 2020 Target		*174*
Other Recommended Measures		
State Government Operations	1–2	
Local Government Operations	TBD	
Green Buildings	26	
Recycling and Waste (Mandatory Commercial Recycling, Other Measures)	9	
Water Sector Measures	4.8	
Agriculture – Methane Capture at Large Dairies	1	

[a] Reductions from regional transportation-related GHG targets (21.4 MMT CO_2e) are an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target. The CARB will establish regional targets for each Metropollitan Planning Organization region following the input of the Regional Targets Advisory Committee and a public consultation process with MPOs and other stakeholders per SB 375.

SOURCE: CARB, 2009.

LOCAL REGULATIONS

Bay Area Air Quality Management District CEQA Guidelines. The BAAQMD is the primary agency with direct and indirect regulatory authority over sources of air pollution in the San Francisco Bay Area Air Basin, which includes Pleasanton. As part of its role in air quality regulation, BAAQMD prepares guidelines and procedures to assist lead agencies in evaluating a project's potential air quality impacts during the CEQA environmental review process. In June 2010, the BAAQMD adopted new CEQA

thresholds of significance for operational GHG impacts, which were not previously included in the BAAQMD CEQA Guidelines. The BAAQMD has not defined quantitative GHG thresholds for construction activities. Although BAAQMD's adoption of significance thresholds in 2010 was the subject of recent judicial actions, there is substantial evidence to support use of these thresholds in this analysis (BAAQMD, 2009). The GHG thresholds for projects and plans are based on meeting the statewide AB 32 GHG emissions reduction targets established by the CARB.

Pleasanton General Plan. Pleasanton's General Plan, *2005 Pleasanton Plan 2025,* includes an Air Quality and Climate Change Element. Policy 6 calls for a reduction in GHG emissions by increasing energy efficiency, conservation, and use of renewable resources. Program 6.1 specifies development of a Climate Action Plan to reduce net GHG emissions, including a GHG emissions inventory, adoption of an emissions reduction target, and development of strategies and actions to reduce GHG emissions. The Climate Action Plan is discussed below. Program 6.2 encourages adoption of a standard methodology for estimating greenhouse gas emissions from development projects and utilize this methodology as part of the project review process. GHG emissions have been calculated using a methodology supported by the BAAQMD.

City of Pleasanton Climate Action Plan. The City of Pleasanton adopted a community-wide emissions reduction target of 15% below its 2005 baseline by the year 2020, which is considered to be consistent with the state-wide AB 32 goal of reducing emissions to 1990 levels. Through a mix of prescriptive and voluntary measures, Pleasanton is committed to reducing to its emissions to the 1990 level of 655,218 MT CO_2e per year by the year 2020, which is 115,626 MT CO_2e below the baseline, and 306,331 MT CO_2e below the projected 2020 business-as-usual emissions (a reduction of approximately 32%). Since the City is largely built out, and there are few infill locations available for dense mixed-use development near transit (an effective strategy for reducing the GHG impacts of growth), the near-term opportunities to reduce emissions through land use changes are limited (City of Pleasanton, 2012).

The Climate Action Plan includes many prescriptive measures addressing land use, but relies on reductions from other sectors (e.g., energy conservation) and on reductions associated with changes in personal behavior. Progress toward achieving the 2020 emissions reduction target will be monitored over time through regular updates of the community-wide inventory and review of individual programs as outlined in the monitoring plan. As outlined in the Climate Action Plan, state-wide measures included in the AB 32 Scoping Plan will reduce GHG emissions by 194,017 MT CO_2e. Over the next decade, the City's climate strategies and implementing actions are expected to result in annual emissions reductions of 117,436 MT CO_2e, bring the total expected reductions to 311,453 MT CO_2e per year by 2020, which exceeds the total reductions needed by more than 5,000 MT CO_2e per year. Reductions would be achieved from GHG reduction strategies related to energy conservation, land use and transportation, solid waste minimization, water and wastewater measures, and community engagement (City of Pleasanton, 2012). These strategies and applicability to the proposed project are considered in the City's Climate Action Plan's checklist presented in **Table 4.9-2**.

TABLE 4.9-2

PLEASANTON CLIMATE ACTION PLAN CHECKLIST
DISCUSSION OF PROJECT CONSISTENCY

GHG Reduction Strategies and Actions		Yes	No	N/A	Comments
Strategy LU1: Support Infill and Higher Density Development					
Action LU1-2	Project is infill development within the existing urban fabric that helps complete, reinforce, and repair the surrounding area.			X	Project is not infill development.
Action LU1-3	Project is mixed-use development, which incorporates higher density and affordable residential units consistent and with the Downtown Specific Plan with easy access to activity areas. (Applies to projects in the downtown area only).			X	Project is not in the downtown area.
Action LU1-4	Project is transit-oriented development near BART station, along transportation corridors, in business parks, and/or in the downtown area.			X	Project is not located near a BART station or any of the specified areas.
Action LU1-5	Project is high-density development near and/or around transportation hubs and employment centers.			X	Project is not a high-density development, nor is it located near transportation hubs or employment centers.
Action LU1-6	Project is TOD (transit oriented development): located within 1/4 mile of commuter rail, BART, and other transportation hubs.			X	Project is not a TOD.
Action LU1-7	Project incorporates affordable housing on a vacant infill site.			X	Project is not an infill development.
Strategy LU2: Support Mixed-use Infill and New Development near Local-serving Commercial Areas					
Action LU2-1	Project is located within convenient walking distance to work, residences, and services.			X	Project is not infill or located near local-serving commercial areas.
Action LU2-2	Project provides new housing and/or new employment located within ½-mile walking/biking proximity of complementary land uses, including retail, employment, institutional, or recreational.			X	Project is not located within ½-mile walking/biking distance to such complementary land uses.
Action LU2-4	Project reconnects streets and adds streets; minimizes parking to below code requirements; and includes attractive and functional urban plazas. (Applies to development near Pleasanton BART station in Hacienda and development near West Pleasanton BART)			X	Project is not located near either Pleasanton BART station.
Action LU2-9	Project includes live-work units.			X	Project does not include live-work units.
Action LU2-10	Project incorporates elements of LEED for Neighborhood Development (LEED ND)	X			The project is not an infill development, nor is it located near transit or job centers. However, LEED ND elements incorporated into the project include: project is located contiguous to existing residential development in the city; project

TABLE 4.9-2 (CONT'D)

PLEASANTON CLIMATE ACTION PLAN CHECKLIST
DISCUSSION OF PROJECT CONSISTENCY

GHG Reduction Strategies and Actions		Yes	No	N/A	Comments
					would avoid special-status species habitat; project would conserve the creek, and avoid floodplains.
					Also, the project would increase accessibility to recreation facilities by developing public trails in proposed open space, which will be accessible to project residents as well as to the public.
Strategy LU3: Improve Transportation Efficiency through Design Improvements					
Action LU3-1	Project provides key services within a ½-mile walking distance of residential clusters or areas. (Applies to non-residential projects)			X	Project is a residential project
Action LU3-2	Project provides building, landscape, and streetscape development design features that encourage transit, bicycle, and pedestrian access.	X			Sidewalks would be provided along project streets.
Action LU3-3	Project encourages transit use and provides pedestrian and bicycle facilities.			X	There are no transit facilities within walking distance of the project site. Sidewalks would be provided along project streets.
Action LU3-4	Project provides infrastructure to facilitate 'NextBus' technologies for tracking buses and predicting arrival times. (Applies to projects that include two or more bus shelters.)			X	Project would not include bus shelters; there is no bus service to the project site.
Action LU3-5	Project provides street improvements that meet the municipal street standards and AB 1358 Complete Streets and increase the safety, convenience, and efficiency of pedestrians, bicyclists, motorists, and transit riders.	X			Project streets would meet City standards and proposed sidewalks would provide safe access for pedestrians.
Action LU3-6	Project includes pedestrian and bicycle access through cul-de-sacs in new projects, except where prohibited by topography.	X			Easements are proposed at the ends of two of the four proposed cul-de-sacs (providing access to Middleton Place and proposed open space) and another cul-de-sac is contiguous to proposed open space. Bicycle access would be available on project streets; designated bike lanes are not proposed on project streets nor are they designated by the General Plan for project streets.
Action LU3-7	Project includes neighborhood traffic calming to slow traffic speeds, reduce cut-through traffic and traffic-related noise, improve the aesthetics of the street, and increase safety for pedestrians, bicyclists, and vehicles.		X		No traffic calming measures are proposed. However, streets would meet City standards and proposed sidewalks would increase pedestrian safety.

TABLE 4.9-2 (CONT'D)

PLEASANTON CLIMATE ACTION PLAN CHECKLIST
DISCUSSION OF PROJECT CONSISTENCY

GHG Reduction Strategies and Actions		Yes	No	N/A	Comments
Strategy TR1: Improve and Increase Transit Ridership with Incentives, Partnerships, and Related Investments					
Action TR1-6	The project offers discounted transit passes as part of HOA amenities, payable through the HOA dues. (Applies to residential development within 1/2 mile of transit.)			X	Project is not located within ½ mile of transit facilities.
Action TR1-9	The project includes a condition of approval to limit diesel vehicle idling. (Applies to projects with associated bus or truck traffic.)	X			Mitigation Measure 4.8-1f limits idling of construction-related diesel equipment.
Strategy NM1: Enhance and Maintain a Safe, Convenient, and Effective System for Pedestrians and Bicyclists					
Action NM1-1	Project provides a community trail, bike lane, staging area or other facility consistent with the Community Trails Master Plan or the Pedestrian and Bicycle Master Plan.	X			Trails would be developed in proposed open space areas.
Action NM1-4	Project provides bicycle-related improvements (i.e., work-place provision for showers, bicycle storage, bicycle lanes, etc.).	X			No specific bicycle-related improvements are proposed although none are required in residential developments. Bicycle access would be available on project streets, although no dedicated bike lanes are proposed or designated by the General Plan for project streets.
Action NM1-5	Project provides bike parking. (Applies to non-residential and multi-family projects.)			X	Project is a residential project, but is not a multi-family project.
Action NM1-7	Project provides bicycle detection at signalized intersections.			X	There are no signalized intersections at or near the project site.
Action NM1-8	Project provides safe and convenient bike racks. (Applies to private schools, business and office projects.)			X	Project is not a private school, business, or office project.
Action NM1-9	Project completes a section of the Iron Horse Trail. (Applies to developments adjacent to the trail location.)			X	Project is not located adjacent to this trail.
Action NM1-10	Project contributes to the bicycle/pedestrian underpass at 580/680 interchange (Johnson Drive canal) for connection to Dublin. (Applies to new projects in the immediate vicinity.)			X	Project is not located in the vicinity of the bicycle/ pedestrian underpass at I-580/680 interchange.
Strategy TDM1: Use Parking Policy/Pricing to Discourage Single Occupancy Vehicle (SOV) Travel					
Action TDM1-1	Project shares parking with adjacent use to reduce paved areas that contribute to urban heat islands and reduce stormwater infiltration.			X	The project's off- and on-street parking would not increase paved areas and shared parking would not pertain to this type of residential project.

TABLE 4.9-2 (CONT'D)

PLEASANTON CLIMATE ACTION PLAN CHECKLIST
DISCUSSION OF PROJECT CONSISTENCY

GHG Reduction Strategies and Actions		Yes	No	N/A	Comments
Action TDM1-2	Project separates fee-based parking from home rents/purchase prices or office leases. (Applies to projects within 1/2 mile of BART stations to increase housing and office affordability for those without a car or cars.)			X	Project is not located within ½ mile of transit facilities.
Action TDM1-3	Project tenants will participate in the City's TSM program to reduce auto trips. (Applies to non-residential projects.)			X	Project is a residential project.
Action TDM1-5	Project will participate in a parking demand management program.			X	Project is a residential project and parking demand would not be an issue.
Action TDM1-6	Project provides one or more electric charging stations for plug-in vehicles.			X	No charging stations are proposed, but homeowners could install EV charging stations in their homes.
Action TDM1-7	Project provides motorcycle or scooter parking. (Applies to projects located in Downtown.)			X	Project is not located in downtown.
Strategy TDM2: Promote Alternatives to Work and School Commutes					
Action TDM2-4	Project provides a neighborhood telecommuting center.			X	Project residents could telecommute from their residences.
Action TDM2-7	Project provides transit passes or other transit use incentives for an interim period to establish transit use patterns for employees. (Applies to new non-residential projects of more than 20,000 s f. within 1/4 mile of transit)			X	Project is a residential project and not located within ¼ mile of transit.
Action TDM2-10	Project provides dedicated parking spaces for carpool, vanpool, alternative-fuel, and car-share vehicles.			X	Project is a residential project and provision of such dedicated spaces would not be applicable.
Action TDM2-11	Project incorporates a car-sharing service.			X	The project is not in a centralized area where car-sharing services typically locate.
Strategy EC1: Use City Codes, Ordinances and Permitting to Enhance Green Building, Energy Efficiency, and Energy Conservation					
Action EC1-1	Project meets LEED *Certified* rating level and achieves 25% above T-24, and incorporates new requirements for shade trees, cool roofs and landscape lighting. (Applies to civic projects and commercial projects over 20,000 s f.)			X	Project is not a civic project or a commercial project.
Action EC1-2	Project meets the City's residential green rating standard, including 25% above T-24, and incorporates new requirements for shade trees, cool roofs and landscape lighting. (Applies to residential projects.)		X		The City is updating the Pleasanton Municipal Code to incorporate CALGreen as the standard, and the City could require the project to comply with these code requirements, but this has not yet been determined.

TABLE 4.9-2 (CONT'D)

PLEASANTON CLIMATE ACTION PLAN CHECKLIST
DISCUSSION OF PROJECT CONSISTENCY

GHG Reduction Strategies and Actions		Yes	No	N/A	Comments
Action EC1-3	Project provides light-colored paving material for roads and parking areas, as well as parking lot shade trees.		X		Project would not develop any parking lots. The color of street paving is not specified on project plans.
Strategy EC4: Develop Programs to Increase Energy Efficiency and Conservation					
Action EC4-4	Project incorporates solar tubes, skylights, and other daylighting systems within the design.		X		Project has not specified any such energy conserving features in project homes.
Strategy ER1: Implement Local Ordinances and Permitting Processes to Support Renewable Energy					
Action ER1-1	Project provides residential renewable energy installations (e.g., wind turbines). (Applies to residential projects.)		X		Project has not specified any renewable energy installations.
Strategy ER2: Develop Programs to Promote On-Site Renewable Energy in the Community					
Action ER2-3	Project incorporates distributed generation, especially PV, solar thermal, solar hot water, and solar cooling, and/or providing bloom box or other fuel cell technologies.		X		Project does not include any renewable energy systems on proposed homes.
Action ER2-5	Project includes a solar grid to power one or more EV charging stations.		X		Project has not specified any on-site renewable energy facilities, but homeowners could install PV systems and EV charging stations in their homes.
Strategy SW2: Increase Recycling, Organics Diversion, and Waste Reduction Associated with the Entire Community					
Action SW2-12	Project provides adequate space and logistics for handling of recyclable and compostable materials. (Applies to commercial and multifamily residential projects.)			X	Project is not a commercial or multi-family project.
Strategy WA1: Conserve Community Water through Building and Landscape Design and Improvements					
Action WA 1-7	Project incorporates a water-saving landscape plan that includes xeriscaping and drought-resistant planting in lieu of lawns.			X	Project's landscape plan does not specify landscape species, and only indicates that new trees and vegetation would be planted in open space areas. Landscaping around proposed homes would be the responsibility of each homeowner.
Action WA 1-8	Project limits lawn areas to designated play areas.			X	The project does not include any designated play areas. Landscaping around proposed homes would be the responsibility of each homeowner.
Strategy WA3: Increase or Establish use of Reclaimed/Grey Water Systems					
Action WA3-2	Project utilizes reclaimed wastewater.		X		Project has not specified any facilities for utilizing reclaimed wastewater.
Action WA3-4	Project incorporates rain harvesting.		X		Project has not specified any rain harvesting facilities.

The goals, strategies, and actions specified in the City's Climate Action Plan (CAP) will ultimately be implemented through the City's Municipal Code and planning policies that emphasize the development of higher density, mixed-use development in the vicinity of Pleasanton's two BART stations. Since the project is not located near transit facilities, almost two-thirds (61% or about 31 actions) the above CAP actions do not pertain to the proposed project. Of the remaining CAP actions, the project design would be consistent with almost two-thirds of them (61% or about 11 actions), and would not be consistent with the rest (about 7 actions).

4.9.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based upon the criteria presented in Appendix G of the *CEQA Guidelines*, a project normally would have a significant effect on the environment if it would:

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

Exercising its own discretion as lead agency and similar to multiple other San Francisco Bay Area jurisdictions, the City of Pleasanton has decided for this EIR to rely on the thresholds within the *Options and Justification Report* (dated October 2009) prepared by the BAAQMD. The BAAQMD *Options and Justification Report* establishes thresholds that the City finds are based on substantial evidence and are consistent with the thresholds outlined within the 2010 BAAQMD *CEQA Air Quality Guidelines.* The thresholds have been developed by the BAAQMD in order to achieve GHG reduction goals set forth in AB 32. BAAQMD's recommended thresholds are as follows:

- Compliance with a Qualified GHG Reduction Strategy, or
- Meet the following threshold: 1,100 MT CO_2e/year

For purposes of this EIR, project compliance with the 1,100 CO_2e/year threshold is used as the primary basis to determine significance. The project's consistency with operative goals and policies of the City's Climate Action Plan (CAP) that are designed to reduce GHG emissions on a city-wide basis also is analyzed, but as a secondary basis for assessing significance under CEQA.

APPROACH TO ANALYSIS

The analysis of GHG emissions considers construction-related and operational impacts associated with the proposed project. Pursuant to Section 15064.4 of the CEQA Guidelines, the significance of the project's GHG emissions has been determined based on the above BAAQMD's previously recommended thresholds of significance, and on whether the project's emissions would exceed levels outlined in any applicable GHG reduction plans, policies, or regulations.

The BAAQMD's previously recommended thresholds of significance include a threshold for operational GHG emissions but none for construction-related GHG emissions (BAAQMD, 2009). The BAAQMD recommends the significance of GHG construction-related emission impacts be determined in relation to meeting AB 32 GHG reduction targets. The BAAQMD further recommends, and encourages lead agencies to incorporate, best management practices (BMPs) to reduce GHG emissions during construction, as feasible and applicable (BAAQMD, 2012). BMPs could include, but are not limited to: ensuring that at least 15 percent of the construction fleet is comprised of alternatively fueled (e.g., biodiesel, electric) vehicles/equipment; using at least 10 percent local building materials; and recycling or reusing at least 50 percent of construction waste or demolition materials.

For purposes of this EIR, project compliance with the 1,100 MT CO_2e/year threshold is used as the primary basis to determine significance. The project's consistency with operative goals and policies of the Climate Action Plan that are designed to avoid environmental impacts also is analyzed as a secondary basis for assessing significance. As explained earlier in this chapter, compliance with the current requirements of the Climate Action Plan is not sufficient by itself at this time to support a determination that a project's greenhouse gas emissions are less than significant by definition.

The impact analysis in this section estimates the annual GHGs that would be emitted during project construction activities, and then compares these estimates to total annual GHG emissions in the Bay Area and in the state (there are no applicable construction-related thresholds). The impact analysis also compares total construction-related GHG emissions (averaged over the lifespan of the project) to BAAQMD operational significance thresholds. In addition, this analysis estimates total annual GHGs that would be emitted from project operation for space heating/cooling, water/wastewater use, solid waste generation/disposal, and mobile source emissions from project-generated traffic. Total operational GHGs are then compared to the BAAQMD's operational GHG thresholds of significance that apply to the project, which are 1,100 MT of CO_2e per year.

CONSTRUCTION IMPACTS

Impact 4.9-1: Project construction would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. (Less than Significant)

Project construction activities are estimated to occur over approximately 24 months, and the resulting exhaust emissions from off-road equipment, on-road trucking, and construction worker commute traffic during this period are expected to contribute minimally to long-term regional increases in GHGs. **Table 4.9-3** presents the project's estimated annual construction-related emissions; for purposes of this analysis, construction is assumed to occur over three years (2012 to 2014). As indicated in the table, construction activities associated with the project would generate up to 609 MT CO_2e in the peak year. Emissions associated with project construction would represent approximately 0.00013% of total annual GHG emissions for the state,[3] and approximately 0.00064% percent of total annual GHG emissions for the

[3] CARB (2011) reported net statewide GHG emissions in 2009 at approximately 453 MMT CO_2e, the lowest level in a decade. The total net emissions between 2000 and 2009 decreased from 459 to 453 MMT CO_2e, representing a 1.3 percent decrease from 2000 and a 6.1 percent increase from the 1990 emissions level.

TABLE 4.9-3

PROJECT CONSTRUCTION-RELATED GHG EMISSIONS

	Estimated Maximum CO_2e Emissions (MT per year)
Demolition and Grading (Year 1)	68.9
Construction (Year 2)	608.6
Construction and Paving (Year 3)	179.9
Total Construction-Related Emissions	**857.4**
Construction-related GHG Significance Threshold	None

Note: For purposes of worst-case analysis, emissions factors for 2012, 2013, and 2014 were respectively used for Year 1, Year 2, and Year 3. If construction begins after 2012, emissions factors will be lower in future years and project emissions would therefore be lower.

SOURCE: CalEEMod Model Results, 2012 (see Appendix E)

entire Bay Area.[4] The contribution of GHG emissions from the project would be extremely small in terms of both the statewide and Bay Area annual GHG emissions. During the entire ±24-month construction period, an estimated 857 MT of CO_2e emissions would be generated, which would not exceed the BAAQMD's operational GHG significance threshold of 1,100 MT CO_2e per year. Although this threshold would not apply to construction-related emissions, it is an indicator that the project's construction-related emissions would be less than significant. Neither the state nor the BAAQMD has adopted a methodology or quantitative threshold—such as those that exist for criteria pollutants—that can be applied to a construction project to evaluate the significance of an individual project's construction-related contribution to GHG emissions. Although the BAAQMD's CEQA Guidelines do not specify thresholds of significance for construction-related GHG emissions, they do encourage incorporation of BMPs to reduce GHG emissions during construction, as applicable, such as ensuring that at least 15 percent of the construction fleet is comprised of alternatively fueled (e.g., biodiesel, electric) construction vehicles/equipment; using at least 10 percent local building materials; and recycling or reusing at least 50 percent of construction waste or demolition materials.

A relatively small amount of GHGs would be generated during project construction activities in comparison to statewide and Bay Area GHG emissions. Further, GHG emissions would be temporary in nature, would be limited to the approximately ±24-month construction period, and would not continue after completion of project construction. For these reasons, project construction would not conflict with state AB 32 goals and the City's Climate Action Plan. Therefore, this impact would be less than significant.

[4] BAAQMD (2010a) reported regional Bay Area GHG emissions in 2007 at approximately 95.8 MMT CO_2e (88.7 MMT CO_2e were emitted within the San Francisco Bay Area Air Basin and 7.1 MMT CO_2e were indirect emissions from imported electricity).

Although no mitigation is necessary, implementation of Mitigation Measure 4.8-1f, which includes idling restrictions specified in Title 13 of the California Code of Regulations, Section 2485, would limit criteria pollutant emissions and, in turn, reduce construction-related GHG emissions.

Mitigation Measure 4.9-1: None required.

OPERATIONAL IMPACTS

Impact 4.9-2: Project operations would generate GHG emissions, but not at levels that would result in a significant impact on the environment. (Less than Significant)

Implementation of the proposed project would contribute to long-term direct increases in greenhouse gases (GHGs) as a result of traffic increases (mobile sources) and indirect or secondary fuel combustion emissions from space or water heating, water delivery, wastewater processing and solid waste disposal. Project implementation would also result in other secondary operational increases in GHG emissions as a result of electricity generation resulting from project-related increases in energy demand.

The proposed project is estimated to generate a total of 817 MT CO_2e per year from direct and indirect sources. Direct project-related GHG emissions would include emissions from area sources and mobile sources. Indirect project-related GHG emissions would include emissions from consumption of electricity, natural gas, and water, as well as wastewater and solid waste generation. **Table 4.9-4** presents the estimated direct and indirect unmitigated GHG emissions. Unmitigated GHG emissions would not exceed the BAAQMD's previously recommended GHG significance threshold of 1,100 MT CO_2e per year, and therefore, the project's GHG emissions would be less than significant.

TABLE 4.9-4

PROJECT OPERATIONAL GHG EMISSIONS

Source	Total Metric Tons of CO_2e per Year[a]
Area Sources	47.8
Energy	199.4
Solid Waste	27.3
Water	10.1
Mobile Source	532.7
Total Unmitigated Operational Emissions	**817.3**
Operational GHG Significance Threshold	1,100

SOURCE: CalEEMod Model Results, 2012 (see Appendix E).

Mitigation Measure 4.9-2: None required.

Impact 4.9-3: Project operations would not conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions. (Less than Significant)

As indicated under Impact 4.9-2, above, the project's long-term operational GHG emissions would not exceed the adopted BAAQMD's previously recommended operational GHG significance thresholds. In addition, the project would be consistent with two-thirds of the GHG reduction actions in the Pleasanton Climate Action Plan that pertain to the proosed project.[5] Therefore, the proposed project is not considered to conflict with the state's AB 32 goal and associated Scoping Plan estimates of reducing GHG emissions to 1990 levels by 2020. The impact would therefore be less than significant.

Mitigation Measure 4.9-3: None required.

CUMULATIVE IMPACTS

Impact 4.9-4: The proposed project would not result in a cumulatively considerable contribution to GHG emissions. (Less than Significant)

Because GHG emissions affect global climate change, the evaluation of GHG emissions is inherently a cumulative impact issue. Since it is not feasible to evaluate GHG emissions impacts based on the sum of all past, present, and reasonably foreseeable future projects on a global scale, the geographic scope for cumulative GHG emission impacts is the San Francisco Bay Area Air Basin as well as the state as a whole.

GHG Emissions during Project Construction. As discussed above under Impact 4.9-1, the BAAQMD does not have a recommended threshold of significance for construction-related GHG emissions. When amortized over a minimum 30-year expected lifespan of project homes, total GHG emissions from construction activity would be equivalent to approximately 29 MT of CO_2e per year. Peak-year construction emissions of 609 MT of CO_2e would represent approximately 0.00013% of total annual GHG emissions for the state,[6] and approximately 0.00064% of total annual GHG emissions for the entire Bay Area.[7] Thus, while the cumulative impact of regional and statewide GHG emissions is potentially significant, the contribution of GHG emissions from the project would be extremely small in terms of both the statewide and Bay Area annual GHG emissions. In addition, construction-related GHG emissions would be temporary in nature and limited to the approximately $\pm$24-month construction period. Therefore, the project's contribution to GHG emissions during construction would not be cumulatively considerable (less than significant).

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[5] As mentioned above, there are no transit facilities in or near the project site. Since the City's Climate Action Plan policies emphasize the development of higher density, mixed-use development in the vicinity of Pleasanton's two BART stations, these policies do not pertain to development proposed on the project site.

[6] CARB (2011) reported net statewide GHG emissions in 2009 at approximately 453 MMT CO_2e.

[7] BAAQMD (2010) reported regional Bay Area GHGs emissions in 2007 at approximately 95.8 MMT CO_2e (88.7 MMT CO_2e were emitted within the San Francisco Bay Area Air District and 7.1 MMT CO_2e were indirect emissions from imported electricity).

GHG Emissions during Project Operations. Given the global nature of the climate change issue, cumulative GHG emissions are considered a significant impact. At the project level, the BAAQMD previously recommended a threshold of 1,100 MT of CO_2e per year as the individual project operational threshold for projects other than stationary sources. Because the BAAQMD's threshold of significance for operational GHG emissions represents the level that would not substantially conflict with the goal of reducing statewide GHG emissions—which in turn are aimed at stabilizing global climate change (BAAQMD, 2009)—GHG emissions below this threshold are not considered cumulatively considerable.

As discussed above under Impact 4.9-2, project-related direct and indirect operational GHG emissions would be 817 MT of CO_2e per year. Because the project's operational GHG emissions would be less than the BAAQMD's previously recommended threshold of 1,100 MT of CO_2e, the project's contribution to cumulative GHG emissions and associated climate change impacts would not be cumulatively considerable (less than significant).

Mitigation Measure 4.9-4: None required.

REFERENCES – GREENHOUSE GAS EMISSIONS

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4.10 CULTURAL RESOURCES

This chapter summarizes the findings of several literature reviews and archaeological field inspections that have been completed for various development proposals on the project site. The first cultural resources study surveyed the entire project site and it was completed by Holman & Associates in 1990. A second study was completed by Archaeological Resource Service (ARS) in 1999, and it included a literature review and field survey. In 2003, Holman Associates updated the literature review and completed a field visit to note any changes since the previous field inspections. Copies of these reports are available for public review at the Planning Division of the Pleasanton Community Development Department at 200 Old Bernal Avenue in Pleasanton.

4.10.1 ENVIRONMENTAL SETTING

ARCHIVAL RESEARCH

An updated archaeological literature review was conducted by Miley Holman in November of 2003 (file no. 03-260) at the Northwest Information Center (NWIC) located at Sonoma State University to obtain copies of all relevant archaeological reports for the Lund Ranch II project area. To date there have been two studies done. In 1990 Holman & Associates completed a cultural resources of the entire project area for Shea Homes. The only other study covering the project area is one done by ARS in 1999. These two reports are summarized below.

The 1990 Holman report contains an extensive archaeological and historical background section, of which only the historic period information will be repeated for this study. Historic use of the Amador and Livermore valleys began with the establishment of the Mission San Jose. As the herds of mission cattle, horses and sheep increased in the area of Mission San Jose, many animals were driven through Mission Pass to the Sunol area and northward to the Livermore Valley. With the secularization of the mission system between 1834 and 1836, the Lund Ranch property fell within the land grant of the Rancho Valle de San Jose.

This original land grant of 11 square leagues was divided by Governor Alvarado in 1839 between Antonio Maria Pico, Augustin Bernal, Antonio Maria Sunol, Maria Dolores Bernal, and Juan Bernal. By the time the original Rancho ownership was confirmed by the United States Land Commissioners in 1954, the current project area fell within the portion owned by the Bernal family, who used it primarily for cattle grazing.

Initially none of the grantees lived on the Ranch Valle de San Jose, remaining instead in the town of San Jose to the south. Ultimately the Bernals and Sunol built houses on various portions of the Rancho. None of the structures built by the Bernal family or by the Sunol family were found anywhere near the current project area.

Archival research done for the 1990 Holman report indicated that the project area was part of the holdings of the Mission San Jose and later was within the boundaries of the Rancho Valle de San Jose land grant. There is no documentary evidence that any occupation of the project area occurred at that time although it was probably used for cattle grazing. Neither is there any evidence of occupation during Gold Rush times. Historic maps of the area indicate that by the 1870s, the project area had recognizable boundaries. After 1878, the property was continuously in the hands of the Spadorno (Sportono) family.

The current project area contains a cluster of buildings which evidently were occupied continuously from 1906 through the 1980s. The numbers and arrangement of buildings at this location varied over the years although one structure, the main residence house, survived throughout this period.

One other building, no longer visible, existed along the southern border of the project area from at least 1906 into the late 1940s but had disappeared off of maps by 1953. This isolated structure was almost certainly a barn located at a convenient location near the main ranch complex. Early in its history, this structure was reached from a different road than the ranch. A dirt road linked the two areas briefly in the 1920s and 1930s but this road was abandoned by the 1940s, perhaps as the condition and use of the isolated structure declined. It was demolished sometime before 1953. The roadway remains in existence, accessing the ridge line south of the ranch complex; its antiquity is attested by the line of mature olive trees which line it, running from the bottom of the ravine up to the ridge above.

FIELD SURVEYS

For prehistoric resources, a mixed strategy intensive and intuitive field inspection was completed by Mr. Randy Wiberg and Miley Holman in November, 1990 after an archaeological literature review revealed no recorded historic or prehistoric sites inside the project borders. No prehistoric archaeological resources were noted; a recommendation was made to stop work during earthmoving activities in the event that any prehistoric materials were noted, especially in the westernmost portion of the property and along the drainage where prehistoric archaeological deposits could be found buried under alluvial materials and/or historic land alteration activities.

The field inspection for historic resources focused on an inspection of the remaining grouping of building, including the existing farmhouse and adjacent barns and other structures. At the time of the survey (1990) four locations were noted as potentially significant. These include the main ranch house, barn and blacksmith shop, the newer open-sided barn, and the slaughterhouse.

In 1999, ARS also completed field surveys and on-site structures were evaluated by a qualified architectural consultant. ARS also did not find any surface indicators of prehistoric archaeological resources, but that the area surrounding the building complex near the drainage could contain buried archaeological resources (both prehistoric and historic).

A re-inspection of the project site was conducted by Holman & Associates to evaluate the changes to the property which may have occurred between the original 1990 survey and the 1999 survey in and around

the historic building complex. No attempt was made to complete a new visual inspection of the ground surface for prehistoric artifacts except along the main drainage which extends through the housing complex.

PREHISTORIC ARCHAEOLOGICAL RESOURCES

The archaeological literature reviews completed in 1990 and 1999 revealed no recorded prehistoric archaeological resources on the project site. The closest recorded archaeological site (recorded in 1950) was located two miles north of the project area, where three mortars and one pestle were found 15 feet below the surface on top of a gravel layer. Other surveys conducted in 1981 and 1989 were on properties located five miles to the northwest and two miles to the west of the site. These surveys resulted in ten isolated finds (individual prehistoric artifacts which do not appear to be directly associated with any other artifactual materials), seven prehistoric composite sites, and relocation of two prehistoric midden sites which had been recorded previously.

Field surveys conducted in 1990, 1999, and 2003 did not reveal any prehistoric cultural resources on the project site. Both the 1990 and 1999 surveys did not find prehistoric archaeological materials on the slopes above the site's main drainage. Both reports speculated that any potentially buried prehistoric resources would be found along the drainage in the vicinity of the complex or in the fields west of it.

HISTORICAL RESOURCES

The 1990 Holman report concluded that the Lund Ranch complex, as it then stood, represented one of the best preserved examples of how farming and livestock raising was done in the Pleasanton area from the beginning of the 20th century on through 1990, when cattle grazing and raising of other types of livestock was still underway. None of the structures were determined to be significant based upon their unique qualities or state of preservation, and none of them were in a good enough state of preservation to be considered candidates for either rehabilitation and preservation in situ, or capable of being moved to another location for re-use. The 1999 ARS report concurred with the 1990 Holman report. Existing structures on the site were described in the 1990, 1999, and 2003 reports as follows:

Main Ranch House. According to an interview with the then owner, Mr. Lund, this structure was built by the Sportono family around the turn of the 20th century. Built on an eroded brick foundation, the farmhouse had been considerably altered by 1990, retaining little of its original exterior design. Mr. Lund reported that the wooden framing had considerable rot; no attempts had been made to repair it. The 2003 survey found that the house had been abandoned, and its porch area on the southern wall had been removed, exposing considerable rot. Also, the six-foot high brick basement retaining wall had been extensively eroded and was close to failure.

New Barn and Blacksmith's Shop. These two structures were joined and are located approximately 100 feet to the east of the main house on the south side of the drainage which cuts through the property. During the 1990 visit the blacksmith's shop contained a small forge, anvil and tools capable of

performing most repairs on a working ranch. Mr. Lund indicated that the shop was to be dismantled and moved before development was to occur. By 2003, this structure was dismantled and equipment removed. Only a pile of scrap metal remains at this location.

Open-sided Barn. Approximately 50 feet east of the barn/blacksmith's shop is a second open sided barn used for livestock; plans at the time called for this structure to be dismantled and moved prior to construction. As of 2003, this structure was still in good repair and being used to feed and shelter the cattle that were still on the property.

Slaughterhouse. Approximately 50 feet further east of the barn/blacksmith's shop was a series of fallen down low shed structures, one containing the remains of a brick chimney, originally though to represent another blacksmithing location by the Holman & Associates survey team. Mr. Lund however identified this area as the slaughterhouse; the brick flue and open base were used to heat a scalding pot. Outside the slaughterhouse itself and parallel to a row of low sheds were a number of shallow cement basins. According to Mr. Lund, these were used by the Sportono family for feeding the hogs. The use of the adjacent sheds was uncertain at that time. By 2003, most of this complex had either fallen down and/or been removed. Only concrete pads with shallow basins were left, along with a collection of low sheds off to one side.

4.8.2 CONFORMANCE WITH LOCAL PLANS AND POLICIES

PLEASANTON GENERAL PLAN

General Plan Policies	Project Analysis
Conservation and Open Space Element *Goal 4: Designate, preserve, and protect the archaeological and historic resources within the Pleasanton Planning Area.* *Policy 5: Preserve and rehabilitate those cultural and historic resources which are significant to Pleasanton because of their age, appearance, or history.*	The main house of the ranch complex appears to have existed since the beginning of the 20th century and is the only remaining structure of historical importance. Despite its state of deterioration in 2003 (presumably it is even more deteriorated now, nearly 11 years later) and historical evidence of structural modification of the original structure, proposed removal of the ranch complex is considered a significant impact on this historical resource. With documentation of historical site records and an effort to retain items of interest for local historical societies or groups, the impact on this resource would be reduced to less than significant.

4.8.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based upon the criteria presented in Appendix G of the *CEQA Guidelines*, the proposed project would need to be evaluated for its potential effects on cultural resources that could occur on the subject property and the significance of these potential impacts. The project would need to be evaluated for its potential to:

- Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5;
- Cause a substantial adverse change in the significance of a unique archaeological resource as defined in §15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geological feature;
- Disturb any human remains, including those interred outside of formal cemeteries.

CEQA §15064.5 provides extensive direction for the determination of significance in impacts to historical resources and unique archaeological and forms the basis for evaluating the potential effects of a project on these cultural resources. In general, the CEQA Guidelines define an "historical resource" as, among other things, "a resource listed or eligible for listing on the California Register of Historical Resources" (CRHR). (CEQA Guidelines, § 15064.5, subd. (a)(1); see also Public Resources Code §5024.1, Title 14 CCR, Section 2850 et seq) A historical resource may be eligible for inclusion on the CRHR, as determined by the State Historical Resources Commission or the lead agency, if the resource:

- is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; or
- is associated with the lives of persons important in our past; or
- embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- has yielded, or may be likely to yield, information important in prehistory or history. (CEQA Guidelines, § 15064.5, subds. (a)(3).)

In addition, a resource is presumed to constitute an "historical resource" if it is included in a "local register of historical resources" unless "the preponderance of evidence demonstrates that it is not historically or culturally significant." (CEQA Guidelines, § 15064.5, subd. (a)(2).) Archaeological resources can sometimes qualify as "historical resources."

In addition, the State CEQA Guidelines (§15064.5(c)(3).) require consideration of unique archaeological sites as defined in Public Resources Code § 21083.2. A "unique archaeological resource" is defined as "an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information. (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type. (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person." (Public Resources Code § 21083.2(h).)

Public Resources Code §15064.5(e) of the State CEQA Guidelines requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission must be contacted within 24 hours. At that time, §15064.5(d) of the State CEQA Guidelines directs the lead agency to consult with the appropriate Native Americans as identified by the Native American Heritage Commission and directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

ARCHAEOLOGICAL RESOURCES

Impact 4.10-1: Construction activities proposed by the proposed project could disturb unknown subsurface cultural resources. (Less than Significant with Mitigation)

No prehistoric archaeological resources have been identified within the Lund Ranch II project area, but there is the potential that buried resources could be found at the lower elevations, especially in the westernmost portion of the property, along the drainage where prehistoric archaeological deposits could be found buried under alluvial materials and/or historic land alteration activities.

Mitigation Measure 4.10-1: *The following mitigation measures shall be required to reduce potential cultural resources impacts to a less-than-significant level:*

a. *A program of archaeological monitoring should be undertaken for all construction related earthmoving activities in the vicinity of the ranch complex and within 100 feet of the drainage as it exits the compound and flows west out of the Lund Ranch project area. The duration of the monitoring program should be determined by the project archaeologist in conjunction with the project sponsor and the Pleasanton Planning Department. In the event of any discovery, work should be stopped within 50 feet of any discovery until a proposal for the evaluation of the resource as required by CEQA guidelines has been submitted to the lead agency for approval. If evaluation of the resource through a program of hand excavation demonstrates that the resource is eligible for inclusion on the California Register of Historic Resources, a proposal for mitigation of impacts to the resource should be submitted to the lead agency for approval before work is allowed to recommence in the area of recorded archaeological deposit.*

b. *In the event that historic archaeological deposits are uncovered during site monitoring, work should be halted within 20 feet of any discovery until the deposit has been evaluated for potential significance through a program of hand excavation if necessary. If it is determined that the deposit qualifies for inclusion on the California Register, a plan for mitigation of impacts to the resource should be submitted to the lead agency for approval before any actual mitigation efforts are undertaken prior to the continuation of grading operations. Mitigation can include the recording in situ and/or removal of additional historical materials by an archaeological team for*

later analysis combined with continued monitoring of earthmoving activities in the vicinity of any discovery.

Impact Significance After Mitigation: Less than significant.

HISTORICAL RESOURCES

Impact 4.10-2: The project proposes to remove the entire ranch complex and most of the vegetation associated with it. (Less than Significant with Mitigation)

While archival research done to date suggests that most if not all of the standing structures on the property are over 50 years of age, only one, the main house, appears to have existed since the beginning of the 20th century; numerous outbuildings have been built and removed and, in some cases, replaced from the general ranch setting since the Sportono family first built there and since the Lund family took over operation of the ranch.

Both the 1990 Holman report and 1999 ARS report identify the main house as the only remaining structure of historical importance.[1] However, the 2003 Holman report indicates that the structure does not qualify for the California Register because of its state of deterioration, as observed in 2003 (presumably it is even more deteriorated at this time, nearly 10 years later), and the historical evidence of structural modifications to the original structure. Nevertheless, proposed removal of the ranch complex is considered a significant impact on this historical resource. With documentation of historical site records and an effort to retain items of interest for local historical societies or groups, the impact on this resource would be reduced to less than significant.

Mitigation Measure 4.10-2: *The following mitigation measures shall be undertaken prior to the issuance of a demolition permit for the ranch complex:*

a. *Historical site records shall be prepared which include the description of all existing elements of the ranch complex along with photo documentation of them, including: (1) all structures and/or remains of structures mentioned in the 1990 and 1999 report and others; (2) the Quonset hut located up creek from the main house; (3) all other historical features mentioned in the 1990, 1999, and 2003 reports, such as the landscaping elements, piles of historic debris, and the variety of vehicles now abandoned there.*

b. *Some materials and/or items, such as the horse drawn wagon, may be of interest to local historical societies or groups. An attempt should be made to consult with organizations who may have an interest in materials for re-use before they are cleared from the construction site.*

Impact Significance After Mitigation: Less than significant.

[1] The 1999 ARS report contradicts itself by stating that an architectural historical review of the structure found it ineligible, and then concludes that it should be evaluated by an architectural historian anyway.

REFERENCES – CULTURAL RESOURCES

Archaeological Resource Service (Strother, Eric and Amy McCarthy), 1999. *A Cultural Resources Evaluation of the Lund Ranch II Project, Pleasanton, California.* (On file at the Pleasanton Planning Division of the Community Development Department and Northwest Information Center, (NWIC), Sonoma State University, File No. S-22867)

Holman & Associates, 2003. *A Review of Cultural Resources Work Done at the Lund II Ranch Project Area, Pleasanton, Alameda County, California.* (On file at the Pleasanton Planning Division of the Community Development Department)

Holman & Associates, 1990. *Preliminary Archaeological and Historical Research Conducted at the Lund II Ranch Project, Pleasanton, Alameda County, California.* (On file at the Pleasanton Planning Division of the Community Development Department)

4.11 PUBLIC SERVICES

Public services include fire protection, law enforcement, schools, and parks. In municipal areas such as the City of Pleasanton, individual departments within the government provide law enforcement, fire protection, and emergency services to their communities. The community's plans for public safety services are addressed through the goals and policies of the Public Safety Element in the Pleasanton General Plan 2005-2025.

4.11.1 ENVIRONMENTAL SETTING

LAW ENFORCEMENT

Police protection within the project area is provided by the Pleasanton Police Department. The main Pleasanton police station is located at 4833 Bernal Avenue and there are no existing substations.

The Department includes an Operations Division and a Support Services Division. The Operations Division is the largest and most visible portion of the police organization, consisting of 71.5 uniformed and civilian personnel. The Division is comprised of three units, Patrol, Special Enforcement Unit (SEU) and the Special Operations Unit (SOU). The Patrol and Special Enforcement Units are comprised of 57 sworn officers and 3.5 civilian employees while 8 sworn officers and 3 civilian staff members make up the Special Operations Unit. The Department does not maintain a standard ratio of sworn police officers to residents.

The Investigations and Services Division is divided into three areas of responsibility. The division is staffed with 42 full time employees consisting of 16 Police Officers, 3 Police Sergeants, 2 Community Service Officers, a Property and Evidence Technician, a Civilian Police Support Services Manager, 14 Dispatchers, a Crime Analyst, 4 Records Clerks, and an Office Assistant. Members of the Division are responsible for a large cross section of activities and ancillary functions to support the overall mission of the Police Department to provide for public safety. Police personnel are assigned to Criminal Investigations, D.A.R.E., School Resource Officers, and Crime Prevention. The majority of the non-sworn personnel in the division are responsible for Dispatch, Crime Analysis, and Records Management, as well as the control of property and evidence.

The Police Department's average overall response time for 2012 was 18:40 minutes per call compared to 20:03 minutes in 2011. The average response time for emergency calls in 2102 was 4:07 minutes compared to 4:00 minutes for the previous year.

In addition to providing policing services, the Department helps to review proposed developments and building permits through participation on a Staff Review Board. The Department also participates in a mutual aid agreement through cooperation with the California Office of Emergency Services.

FIRE PROTECTION SERVICES

The City of Pleasanton is served by the Livermore-Pleasanton Fire Department through a joint powers authority agreement with the City of Livermore. The Fire Department provides fire suppression, emergency hazardous materials response, emergency medical service, and specialized rescue services. Based on the staffing information available from the approved operating budget for 2012 - 2013, the Fire Department staff includes one fire chief, 30 fire captains, 30 fire engineers, 30 firefighter/paramedics, 18 line operations firefighters, six chief officers, five managers, one disaster preparedness coordinator, four fire prevention inspectors, one hazardous materials coordinator, two hazardous materials inspectors, and four office support staff.

The Fire Department operates out of ten stations, five of which are located in the City of Pleasanton. These include Station 1 on Nevada Street, Station 2 at Stoneridge Mall, Station 3 on Santa Rita Road, Station 4 on Oak Vista Way near Bernal Avenue, and Station 5 at Ruby Hill. These stations are strategically located and staffed to provide adequate response services. The Fire Department's primary service goal is to respond to all fire and medical incidents within seven minutes 90 percent of the time, a goal that the Department met 89 percent of the time in 2006.

The Fire Department maintains a fire travel time of five minutes for Pleasanton. The General Plan's Public Safety Element (Figure 5-6: "Special Fire Protection Areas and Fire Response Travel Times") indicates that a majority of the city lies within the five-minute travel time from one of the five fire stations. However, the Public Safety Element also identifies the ends of Sunset Creek Lane and Sycamore Creek Way as two exceptions to this response time guideline.

The City requires developments located outside the five-minute travel time or located in Special Fire Protection Areas to provide additional fire mitigation measures. These provisions include, at a minimum, automatic fire sprinkler systems. The City has an ordinance requiring that all buildings exceeding 8,000 square feet in floor area have automatic fire sprinkler systems.

In 2009, the LPFD responded to 10,782 calls for assistance (Livermore Pleasanton Fire Department, 2009). While 56 percent of the responses are attributable to calls for service within the City of Livermore, 43 percent are attributable to Pleasanton. Less than one percent of the calls are for mutual aid services or emergencies at the Lawrence Livermore National Laboratory. Of the 4,707 responses in Pleasanton, medical incidents made up 68 percent of the Department's emergency response workload, while fires represented approximately four percent of total responses.

In addition to local fire protection services, mutual aid services are provided to other fire protection districts through a state dispatcher. In 2009, the Fire Department had 21 requests for out-of-county mutual aid and one out-of-state request, primarily in response to severe fires.

SCHOOLS

Public educational services within the City are provided by the Pleasanton Unified School District (PUSD). The PUSD has a total of nine elementary (K-5) schools, three middle (6-8) schools, two comprehensive (9-12) high schools, an alternative high school, and a school-age parent program. In Fall 2012, the District reported a total of 6,381 students in grades K-5; 3,544 students in grades 6-8; and 4,998 grades 9-12 students for a total of 14,923 K-12 students enrolled in the PUSD. Over the next ten years, growth is expected within the Pleasanton Unified School District as a result of new housing construction beginning in 2014 (Davis Demographics and Planning, Inc., 2013).

According to the PUSD demographic projections, the District could experience a net growth of 408 to 483 K-5 students by 2022, a 6.4 to 7.6% increase. In the analysis of the individual elementary (K-5) attendance area projections, the following schools are listed in order of greatest growth over the next ten years: Alisal ES (+233 to +304 K-5 students), Fairlands ES (+134 K-5 students), Lydiksen ES (+83 K-5 students), Donlon ES (net growth of 54 K-5 students), Vintage Hills ES (+53 K-5 students), and Hearst (+49 K-5 students). The Walnut Grove ES should have the largest decline (-146 students), while the Valley View ES (41 net loss) and Henry P. Mohr ES (12 net loss) area also projected to decline. Overall, the District's demographic report found that the District is currently at its desired average elementary enrollment of 700 students and is projected to remain near this goal through at least 2017, but by 2018 another elementary school will be needed in the Northwest portion of the District. Adding a 10th campus will keep the District's average enrollment below 700 students through at least 2022 but an 11th campus may be needed shortly thereafter.

The PUSD's performance goals are based on student/teacher ratios. The PUSD considers existing student/teacher ratios to be acceptable; however, the district would like the future ratio of students to teachers to be 20:1 in kindergarten through third grades and in ninth grade English and math classes. For all other grades, the PUSD has a student/teacher ratio goal of 25:1 (City of Pleasanton, 2008).

RECREATION AND OPEN SPACE

Open space uses comprise approximately 68 percent of all land uses in the Planning Area, making it the City's largest overall land use category. The City currently maintains approximately 5 acres of developed open space per 1,000 residents. Open space uses include preservation and resources areas, park and recreation lands, cultural facilities, and other types of open space. These include both City-owned and maintained parks and open space as well as open space maintained by the East Bay Regional Park District. The Pleasanton Unified School District also has several playing fields and recreational facilities that are used by the public. In the Public Facilities and Community Programs Element of the General Plan, parks are shown on Figure 6-2, Recreational Facilities, and listed in the legend. In the Conservation and Open Space Element of the General Plan, open space and regional park locations are depicted in Figure 7-4, Open Space Lands, and identified in the legend.

Neighborhood Parks. The City of Pleasanton has 28 neighborhood parks (RJM Design Group, Inc., 2014). Neighborhood parks are open spaces that serve adjacent and nearby residents. Users are generally residents or are employed in the neighborhood immediately surrounding the park. The average area of a neighborhood park is about 5 acres, although these parks vary from 0.8 to 13.8 acres. Typical amenities found at neighborhood parks include barbeque and picnic areas, small sports fields and courts, and children's play areas.

Community Parks. There are 15 community parks within the City of Pleasanton. These parks serve a larger area than neighborhood parks, drawing visitors from throughout the City and the surrounding vicinity. Community parks are generally larger than neighborhood parks, with an average area of about 15 acres. Sizes range widely, from 0.5 (for Veteran's Plaza) to 103 acres (for the Sports and Recreation Community Park). Recreational features typically found at community parks include uses similar to those found at neighborhood parks, although facilities are often larger. Additional features include dog runs, BMX tracks, open spaces and trails, and swimming pools.

Recreational Open Spaces. The City owns a number of larger recreational open spaces within the Planning Area. These include the 237-acre Augustin Bernal Park, a relatively undeveloped open space with informal picnic areas and trails; the 425-acre, 18-hole Callippe Preserve Golf Course; and the Bonde Ranch, Gold Creek, and Mission Hills open spaces.

Regional Open Space. The East Bay Regional Parks District owns and manages the Pleasanton Ridge Park, which is outside the Pleasanton city limits but within the Planning Area. This 4,084-acre open space is immediately west of the City and consists of undeveloped open space and hiking trails. The District also owns and operates Shadow Cliffs Recreational Area, which is located on Stanley Boulevard, east of Bernal Avenue. This regional open space contains a number of water-related amenities, such as swimming, boating, water slides, and a wind surfing school.

4.11.2 CONFORMANCE WITH LOCAL PLANS AND POLICIES

CITY OF PLEASANTON GENERAL PLAN

General Plan Policies	Project Analysis
Public Safety Element	
Policy 26: Work in collaboration with the community to provide the highest level of Police services, making Pleasanton a safer place to live, work and play. *Program 26.2: Require new development to pay for police safety improvements required of that development.*	The proposed project design would be reviewed by the Police Department for consistency with its guidelines for police protection improvements in new development. Impacts on urban services would be reduced through project design elements that incorporate recommendations from public service agencies (e.g. Police and Fire Departments) with oversight and approval authority in project development, and through the City's Design Review process.
Policy 8: Provide an adequate level of fire and emergency medical equipment and personnel to	The proposed project design has been reviewed for consistency with state and local fire code requirements.

General Plan Policies	Project Analysis
protect the community. *Program 8.2: Require new development to pay for fire safety improvement needs generated by the new development.* *Policy 10: Strive to respond to all emergency fire-related calls within seven minutes of the time the call for service is received 90 percent of the time.* *Program 10.1: Deny proposed developments not within a five-minute travel time of a Fire Station unless acceptable mitigations are provided.* *Policy 13: Require fire mitigation measures in new and existing developments that reduce the fire threat to the structure and occupants. Require development outside the five-minute travel time and in Special Fire Protection Areas to provide effective fire prevention measures.* *Program 13.1: Require the installation of building and fire code compliant fire-detection and alarm equipment in residential and commercial structures.* *Program 13.2: Install automatic fire sprinkler protection in certain structures as required by adopted City ordinances.* *Program 13.3: Encourage the installation of automatic fire-sprinkler systems in all new construction.* *Program 13.7: Require all projects in the Special Fire Protection Areas seeking building or planning approval to landscape with fire resistant plant materials.*	Compliance with these codes is evaluated in Section 4.11, Hazards.
Public Facilities and Community Programs Element *Policy 10: Provide sufficient parkland and recreational activities to accommodate existing and future needs of residents, workers, and visitors.* *Program 10.2: Encourage developers to dedicate public park acreage in areas designated for park use on the General Plan Map rather than contribute in-lieu fees.* *Program 10.4: Provide a wide variety of active and passive recreational facilities to accommodate the needs of all ages in a diverse and inclusive community. Conduct periodic public surveys to ascertain the park and recreational needs of the community.* *Program 10.22: Provide trails, bike routes or pedestrian walkways to connect the parks and recreational facilities throughout Pleasanton.*	The project applicant proposes to dedicate 166.2 acres of the Lund Ranch property as public open space. Additionally, the project plans specify the construction of Class C and Class B trails on the site for access to the open space for passive recreational uses. These provisions of the development plans are consistent with Policy 10 and its implementing program.

4.11.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based on Appendix G of the CEQA Guidelines, an impact is considered significant if the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, parks, and other public facilities;

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

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

IMPACTS ON EMERGENCY SERVICES

Impact 4.11-1: Construction of a residential development on the project site would require police protection services for future residents, visitors, and property improvements. (Less than Significant)

The Pleasanton Police Department provides law enforcement services for the project site and would continue to serve future development on the site. Pleasanton Police Department patrols the project area and would be able to provide its current high level of police protection service for the new residential development. The Department has also indicated that its response times would generally remain unaffected by the need to serve the proposed residential development as part of its routine patrol service. Therefore, the project's impact on police services would be less than significant.

Mitigation Measure 4.11-1: *None required.*

Impact 4.11-2: Construction of a residential development on the project site would require fire protection services for future residents, visitors, and property improvements. (Less than Significant)

The project site currently receives fire protection services from the Livermore Pleasanton Fire Department and would continue to be served by the Fire Department. The planning and design efforts for the project have been coordinated with the Fire Department throughout the design process to ensure compliance with fire safety guidelines and standards. The department reviewed preliminary project plans for site access and water supply, and specified requirements for roadway access and turnarounds, road widths, emergency access gates, fire hydrant location and spacing, fire lanes, building access, water

supply, and sprinkler systems. The project design has been revised to reflect these requirements as well as special requests for accessibility for firefighters.

The project site is located within a designated Special Fire Protection Area (Figure 5-6 of the General Plan's Public Safety Element) and subject to the provisions for development planned in such areas. A detailed discussion of fire protection issues related to development in these Areas is presented in the Hazards section Chapter 4.12 of this report.

For the reasons stated above, fire hazard risks would be less than significant with implementation of the above Fire Department requirements in combination with the proposed management of vegetation on the upper hillsides of the site.

Mitigation Measure 4.11-2: *None required.*

IMPACTS ON SCHOOLS

Impact 4.11-3: The proposed residential project would generate new students and contribute to the cumulative increase in demand for educational services within the service area of the Pleasanton Unified School District. (Less than Significant)

An extensive evaluation of educational services and facilities available to the community was conducted as part of the environmental review for the Pleasanton General Plan 2005-2025. The environmental impact report for the General Plan (City of Pleasanton, 2008) analyzed the potential effects of community growth on the demand for educational services through the year 2025. That analysis is incorporated herein by reference.

Based upon population growth estimates identified by the General Plan and student enrollment projections by the PUSD's demographic analysis (PUSD, 2012), the project would add approximately 20 new students in the K-5 grades, 13 new students to grades 6 – 8, and 14 new high school students (grades 9 – 12) to the Pleasanton Unified School District, for a total of 47 new students to the District. Students generated by the proposed project would contribute to the cumulative demand for educational services, but would not result in enrollments that the addition of new, permanent facilities. As part of this assessment of impacts on the community's educational services, the analysis of new development identified specific properties and projects that would contribute to increased student enrollment in PUSD. The PUSD's demographic analysis included the development of the Lund Ranch II site as part of the assumed growth that would occur in the city through 2019.

In addition to the goals, policies and actions in the General Plan, future development within the planning area would be required by law to pay development impact fees to each school district at the time of the building permit issuance. These fees are used by the school districts to mitigate impacts associated with long-term operation and maintenance of school facilities with new development in accordance with State law. Pursuant to Section 65996(3)(h) of the California Government Code, payment of these fees "is

deemed to be full and complete mitigation of impacts of any legislative or adjudicative act, or both, involving but not limited to, the planning, use, or development of real property, or any change in government organization or reorganization." Any secondary environmental impacts resulting from the construction of new schools would be analyzed by each School District prior to construction of any new schools. Therefore, with payment of development impact fees to each school district as required by law, the project's impact on the schools attended by project students would be less than significant and its incremental contribution to cumulative impacts on these schools and the school districts overall would not be cumulatively considerable.

Mitigation Measure 4.11-3: *None required.*

IMPACTS ON PARKS AND OPEN SPACE

Impact 4.11-4: The proposed project would generate new residents and contribute to the increase in demand for recreational services within the city. (Less than Significant)

City Recreational Facilities. The Pleasanton General Plan 2005-2025 presents an inventory of recreational facilities operated and planned by the City. Tables 6-1 and 6-2 of the Public Facilities and Community Programs Element provide an inventory of parks and public sports facilities, respectively, within the city; these tables are incorporated herein by reference. The General Plan information for existing and planned sports facilities identifies facilities provided by the City separately and in combination with PUSD facilities, where joint use is applicable. The General Plan evaluates existing and future sports facilities relative to national guidelines and demonstrates that the extent of Pleasanton's sports facilities currently meet the national guidelines for baseball/softball fields, football/lacrosse fields, golf courses, soccer fields, swimming pools, and tennis courts for the Pleasanton's population as of 2009. Based upon the estimated addition of 147 persons from the proposed residential uses on the Lund Ranch property, the City's sports facilities would have the capacity to accommodate the additional use demand from project residents without exceeding the national guidelines for these facilities.

For the planning period covered by the General Plan, which includes land uses planned for the subject property, the evaluation of sports facilities planned at buildout of the community indicates that the City generally would continue to meet the national guidelines for sports facilities. Based upon the anticipated buildout population, the City would be slightly short in the supply of tennis courts; however, the demand for these facilities will depend upon the composition of the future population and the level of interest in each of the respective sports. Also, the national guidelines are advisory and only recommend levels of facility installation on a nation-wide basis. Pleasanton residents may wish to provide more or less of certain individual recreational facilities, depending on community interest. As a result, the project would have a less than significant impact on City recreational facilities.

Open Space and Passive Recreation. With the dedication of 166.2 acres of open space for public use, the proposed project contributes an extensive area of the Pleasanton hillsides for public use. The principal recreational benefits would be passive, consisting of hiking, running, and other recreational activities

compatible with open space. The project plans to provide access to the open space area through trails that connect with adjoining neighborhoods, specifically at Sycamore Creek Way, Sunset Creek Lane, and from the future terminus of Lund Ranch Road. The latter location would include four parking spaces near the trail head. Figure 3-6 in the Project Description section (Chapter 3) illustrates the trails locations.

Figure 3-13 of the Circulation Element in the Pleasanton General Plan identifies a planned unpaved trail/path that is designated across the east end of the project site. This trail will connect the Sycamore Creek Way neighborhood located south of the site with the Bonde Ranch neighborhood to the north of the site. Project plans propose development of a Class C trail across the project site, as conceptually indicated in the Pleasanton Community Trails Master Plan (1993). The proposed trail would provide planned connections from the end of Lund Ranch Road to neighborhoods to the north and south of the project site.

The proposed trails would consist of Class C and Class B trails, with the majority of the trail system to be Class C. Class C trails form the basic network of the Community Trails Master Plan. These trails have widths of four to six feet, and are typically designed for cyclists and pedestrians, often following streets and sidewalks in the urban core. Class B trails are frequently narrower and use may be restricted to pedestrians and/or bicyclists in the urban and developed areas. The majority of Class B trails occur in undeveloped areas, particularly in the Vallecitos Hills to the southeast, as pathways to City and East Bay Regional Park District lands, and to Pleasanton Ridge to the west.

The provision of extensive open space area for public use along with the development of recreational trails for access to the site's open space would be a beneficial impact of the proposed project, and would contribute to the fulfillment of City objectives in obtaining and providing a wide range of recreational opportunities for the community.

Mitigation Measure 4.11-4: *None required.*

CUMULATIVE IMPACTS

Impact 4.11-5: The proposed project would generate new residents and contribute to the cumulative increase in demand for public safety and recreational services within the city. (Less than Significant)

The proposed residential development would result in 147 new residents within the community and, in conjunction with recently approved and other planned developments, would contribute to a cumulative demand for community services. The recently completed General Plan (City of Pleasanton, 2009) and its EIR provide for a comprehensive evaluation of the services impacts associated with the land uses changes anticipated in the community, including the development of the Lund Ranch property. The General Plan's EIR concludes that the implementation of General Plan policies for the provision of services would reduce potential City-wide cumulative impacts to less-than-significant levels. Therefore, the project's contribution to cumulative impacts on public services would be less than cumulatively considerable.

Mitigation Measure 4.11-5: *None required.*

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4.12 HAZARDS AND HAZARDOUS MATERIALS

Several environmental site assessments have been conducted at the project site by McLaren Hart in between 1989 and 1991 to evaluate historic sources of contamination and soil quality at Lund Ranch. In addition, a detailed wildland fire hazards assessment was prepared by Wildland Resource Management (WRM) in May 2012. A detailed Wildland Urban Interface Plan (WUIP) was also prepared by WRM for this project and it is included in Appendix E. Utilizing these site-specific studies, this section presents the existing setting and potential impacts related to hazards and hazardous materials associated with the implementation of the Lund Ranch II project. The Setting includes an overview of general environmental conditions in the project area with respect to the presence of hazardous materials and wastes, a general description of hazardous building materials likely to be present within structures that would be demolished under the project, a discussion of household hazardous wastes, and a discussion of wildland fire hazard. Based on this information, impacts associated with the potential for exposure to hazardous materials during construction and wildland fire hazards as a result of project-related changes in land use are identified.

4.12.1 ENVIRONMENTAL SETTING

Hazardous materials, defined in Section 25501(o) of the California Health and Safety Code, are materials that, because of their "quantity, concentration, or physical or chemical characteristics, pose a significant present or potential hazard to human health and safety or to the environment if released to the workplace or environment." Hazardous materials have been and are commonly used in commercial, agricultural, and industrial applications as well as in residential areas to a limited extent.

A waste is any material that is relinquished, recycled, or inherently waste-like. Title 22 of the CCR, Chapter 11 (Identification and Listing of Hazardous Waste) contains regulations for the classification of hazardous wastes (22 CCR 66261.1, et seq.). A waste is considered a hazardous waste if it is toxic (causes human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gases) in accordance with the criteria established in Article 3 of Chapter 11. Articles 4 and 4.1 also list specific hazardous wastes and Article 5 identifies specific waste categories, including federal Resource Conservation and Recovery Act (RCRA) hazardous wastes, non-RCRA hazardous wastes, extremely hazardous wastes, hazardous wastes of concern, and special wastes. If improperly handled and if released to the soil, groundwater, or air (in the form of vapors, fumes, or dust), hazardous materials and wastes can result in public health hazards.

HISTORIC LAND USES ASSOCIATED WITH HAZARDOUS MATERIALS

Several investigations have been conducted to evaluate the potential presence of hazardous materials in the soil at Lund Ranch. In 1988, a Phase I Environmental Site Assessment was conducted to evaluate the site history and identify potential sources of hazardous materials (McLaren Hart, 1989a). The Phase I report was subsequently reviewed and a site inspection was conducted in 1989. Based on these reviews, potential sources of contamination at Lund Ranch included a 300 gallon gasoline underground storage tank (UST), a 500 gallon gasoline UST, two above ground 80 gallon fuel oil tanks, an above ground

diesel tank, accumulated drums in three locations, and storage of batteries in one location. A car chassis and empty steel tanks were also located on the property. Soil sampling was conducted in these areas on two occasions in 1989 (McLaren Hart, 1989a and 1989b) and later in 1990 after the drums and tanks had been removed (McLaren Hart, 1991). The following describes soil quality and tank removal or soil excavation conducted in each area. For each area, the analytical results for soil samples are compared to the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) Environmental Screening Levels (ESLs)[1] in **Table 4.12-1**.

- The 500 gallon UST was located northwest of the former equipment shed and had a pump located on a concrete pad adjacent to the UST (McLaren Hart, 1989a). The 300 gallon gasoline UST was located north of the former equipment shed and had a pump located on a concrete pad directly above the UST. A boring was completed near each UST and soil samples collected from depths of 5 to 5.5 feet and 6 to 6.5 feet, deeper than the bottom of the USTs, did not contain detectable levels of total petroleum hydrocarbons or BTEX.

- Use of the USTs was discontinued in 1975 (McLaren Hart, 1990), and they were removed in accordance with a tank closure plan approved by the Livermore-Pleasanton Fire Department in 1990 (McLaren Hart, 1991). At the time the tanks were removed, there were no holes observed in the 500 gallon UST. Total petroleum hydrocarbons and BTEX were not detected in soil samples collected from the bottom of this tank excavation. A hole was observed in the bottom of the 300 gallon UST, and xylene was detected at 0.005 mg/kg in the soil sample from the bottom of this tank excavation. Total petroleum hydrocarbons were not detected in this soil sample. After removal of the USTs, the tank excavations were backfilled either with clean backfill removed from the tank excavations or clean imported backfill. Closure of the USTs was approved by the Livermore-Pleasanton Fire Department in 1998 (Livermore-Pleasanton Fire Department, 1998).

- The fuel oil tanks were in use in 1989 and were positioned directly on the ground, and staining was observed on one fuel oil tank (McLaren Hart, 1989a). Soil samples collected from depths of 1.0 to 1.5 feet and 3.0 to 3.5 feet near the dispensing ports of the tanks contained total petroleum hydrocarbons at 6,000 and 4,000 mg/kg, respectively. Subsequent sampling identified total petroleum hydrocarbons at 900 mg/kg in a soil sample from a depth of 5.0 to 5.5 feet in a boring completed in the same location, but total petroleum hydrocarbons were not detected in soil samples from borings completed at farther distances from the fill ports (McLaren Hart, 1989b). Toluene was detected in soil samples collected from depths of 6 to 6.5 feet and 18.5 to 19 feet in a soil boring located 10 feet north of the tanks at 0.04 and 0.03 mg/kg, respectively (McLaren Hart, 1991). Total petroleum hydrocarbons were not detected in either sample from this boring.

[1] Environmental screening levels (ESLs) are published by the San Francisco Bay Region Water Quality Control Board, and are conservative estimates of safe levels of a chemical that a person could be exposed to in soil and groundwater (RWQCB, 2008).

TABLE 4.12-1

SOIL ANALYTICAL RESULTS AND RESIDENTIAL ENVIRONMENTAL SCREENING LEVELS

	Maximum Concentration Detected, mg/kg								
Parameter	**UST Removals**	**Fuel Oil Tank**	**Former Fuel Oil Tank Location**	**Drums and Car Chassis**	**Toxaphene Drums**	**Spilled Drum**	**Diesel Tank**	**Car Batteries**	**ESL, mg/kg**
Total Petroleum Hydrocarbons	ND	ND	ND	2700	NA	2.3	ND	NA	83
Benzene	ND	ND	NA	ND	NA	ND	NA	NA	0.044
Ethylbenzene	ND	ND	NA	0.06	NA	ND	NA	NA	2.3
Toluene	ND	ND	NA	0.05	NA	ND	NA	NA	2.9
Xylenes	0.005	ND	NA	0.16	NA	ND	NA	NA	2.3
Toxaphene	NA	NA	NA	NA	ND	NA	NA	NA	0.0042
Lead	NA	NA	NA	NA	NA	NA	NA	9	200

NOTES:
ESL = Environmental Screening Level for Residential Land Use (RWQCB, 2008)
mg/kg = miligrams per kilogram
NA = not analyzed
ND = not detected
SOURCE: McLaren Hart (1989a, 1991)

Approximately 10 cubic yards of soil was removed from the area between the dispensing ports in 1990 (McLaren Hart, 1991). Total petroleum hydrocarbons and BTEX were not detected in soil samples from the excavation and the excavation was backfilled with clean imported backfill.

The fuel oil tanks had previously been located to the north and when the previous location was inspected, no odors or staining were noted (McLaren Hart, 1989a). Total petroleum hydrocarbons were not detected in a soil sample from a depth of 1.0 to 1.5 feet in the previous tank location.

- The drums were located at three locations. In one location there were 55 gallon drums and chemical containers on a pallet (McLaren Hart, 1989a). Soil staining was observed at the base of one 30-gallon drum containing waste oil located on the ground and the car chasis was also located in this area. Total petroleum hydrocarbons were not detected in a soil sample from a depth of 1.5 to 2 feet near the staining and nearby empty drums.

  The drums and car chasis were removed from this location in 1990 and shallow soil samples from this area contained total petroleum hydrocarbons at a maximum concentration of 39 mg/kg (McLaren Hart, 1991). Creosote was detected in only one sample at a concentration of 4.5 mg/kg and oil was detected only in one soil sample at a concentration 50 mg/kg. In 1990, soil was excavated to a depth of 13.5 feet in this area to remove affected soil, including soil stained with a petroleum type compound that had not been identified by previous sampling. Soil samples from the excavation contained total petroleum hydrocarbons at concentrations up to 2,700 mg/kg indicating that the contamination was more vertically extensive than anticipated. However, the excavation was discontinued because of equipment limitations and impending inclement weather. Also, further excavation could have required rerouting of the adjacent drainage ditch and was impeded by an adjacent large black walnut tree. The excavation was lined with plastic sheeting and backfilled with clean pea gravel to within 2 feet of the ground surface. A one-inch plastic pipe was placed in the excavation to mark the location of the highest contaminant concentration.

  In another location, two drums of toxaphene were observed (McLaren Hart, 1991). These drums were also removed in 1990 and some soil staining was observed. Toxaphene was not detected in shallow soil samples from the stained area.

  In a third location, black staining of the soil and odors observed during the removal of a drum in 1990 indicated that the contents of the drum had leaked (McLaren Hart, 1991). Rather than sample the stained soil, approximately 2 cubic yards of affected soil were removed. Total petroleum hydrocarbons were detected at a maximum concentration of 2.3 mg/kg in soil samples collected from the excavation.

- The above ground diesel tank was in use in 1989. Soil samples collected from depths of 1.0 to 1.5 feet and 3.0 to 3.5 feet below the fill port of the tank did not contain detectable levels of total petroleum hydrocarbons (McLaren Hart, 1989a).

- Eighteen car batteries were stacked on boards near the old equipment barn. One had a cracked casing and it was suspected that it could have discharged battery acid to the ground (McLaren Hart, 1989a). A soil sample from a depth of 1 to 1.5 feet contained lead at 9 mg/kg and had a neutral pH of 6.0. No further action was taken regarding these batteries.

As summarized in Table 4.12-1, with the exception of the drum and car chassis area, the final chemical concentrations detected at each location were below the RWQCB ESL. At the car chassis location, the concentration of total petroleum hydrocarbons in the soil was 2,700 mg/kg, in excess of the ESL of 83 mg/kg. However, the concentration was detected in a soil sample from a depth of 13.5 feet and the excavation has since been backfilled with clean pea gravel.

HAZARDOUS BUILDING MATERIALS

Hazardous building materials are included in this discussion because development of the Lund Ranch site will require demolition of structures that may contain hazardous building materials that could present a public health risk if disturbed during demolition. Hazardous building materials include asbestos, electrical equipment such as transformers and fluorescent light ballasts that contain PCBs or di (2 ethylhexyl) phthalate (DEHP), fluorescent lights containing mercury vapors, and lead-based paints. Asbestos and lead-based paint may also present a health risk to existing building occupants if they are in a deteriorated condition. If removed during demolition of a building, these materials would also require special disposal procedures.

Asbestos is a common name for a group of naturally occurring fibrous silicate minerals that are made up of thin but strong, durable fibers. Because of its physical properties, asbestos was commonly used until the 1970s as a building material, including use as insulation materials, shingles and siding, roofing felt, floor tiles, and acoustical ceiling material. Asbestos is a known carcinogen and presents a public health hazard if it is present in friable (easily crumbled) form. Long-term, chronic inhalation of high levels of asbestos can cause lung diseases such as asbestosis, mesothelioma, and/or lung cancer (ATSDR, 2012). Friable, finely divided and powdered waste containing greater than 1 percent asbestos is classified in the California Code of Regulations (CCR) as a hazardous waste that requires disposal at a licensed landfill (22 CCR 66261.24). Wastes containing non-friable asbestos are not considered hazardous and are not subject to regulation under 22 CCR 66001, et seq.

PCBs are mixtures of synthetic organic chemicals with physical properties ranging from oily liquids to waxy solids. Because of their nonflammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used historically in hundreds of industrial and commercial applications, including use in electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastic, and rubber compounds; in pigments, dyes, and carbonless copy paper; and many other applications. PCBs are a known human carcinogen; they are highly toxic substances that remain persistent in the environment, accumulate in biological systems, interfere with the reproductive system, and act as immuno-suppressants. Under Section 6(e) of the Toxic Substance Control Act (TSCA) (15 USC 2601, et

seq.), Congress began regulating the use and manufacturing of PCBs in 1976, legislating "cradle to grave" (i.e., from manufacture to disposal) management of PCBs in the United States. Under the TSCA, the U.S. Environmental Protection Agency (EPA) began to impose bans on PCB manufacturing and sales and on most PCB uses in 1978. TSCA requires incineration or an alternative destruction method for oils containing PCB concentrations greater than 50 parts per million (ppm) and requires that free liquids be drained from electrical equipment prior to disposal, and that the liquids are appropriately disposed of. In California, PCB wastes are regulated as hazardous waste if the PCB concentration exceeds 50 ppm or the soluble concentration exceeds 5 ppm as oily liquid (22 CCR 66261.24).

Most fluorescent light ballasts manufactured before 1978 contain PCBs in their capacitor and potting material. Ballasts manufactured after January 1, 1978, do not contain PCBs and should be labeled as such on the ballast. Approved disposal methods for PCB-containing ballasts depend on the condition of the ballast and the PCB content of the potting material and capacitor oil. If the PCB concentration of the potting material is less than 50 ppm and the ballast contains a small, intact, non-leaking capacitor, the ballast may be disposed of at a municipal landfill. In general, all leaking ballasts and ballasts containing potting material with PCB concentrations greater than or equal to 50 ppm must be incinerated or destroyed by alternative methods, disposed of in a hazardous waste landfill, or decontaminated using approved methods.

Between 1979 and the early 1990s, DEHP was used in place of PCB as a dielectric fluid in some fluorescent light ballasts and other electrical equipment.[2] DEHP is classified as a probable human carcinogen by the U.S. Department of Health and Human Services and as a hazardous substance by the EPA. Because of this, ballasts containing DEHP must be legally disposed of; ballast incineration or a combination of ballast recycling and incineration are recommended for complete destruction of DEHP.

Spent fluorescent lamps and tubes commonly contain mercury vapors and are considered a hazardous waste in California (22 CCR 66261.50). In 2004, new regulations classified all fluorescent lamps and tubes in California as a hazardous waste because they contain mercury. When these lamps or tubes are placed in the trash and collected for disposal, they can be broken and release mercury to the environment. The mercury can be absorbed through the lungs into the bloodstream of people nearby and can be washed by rain into waterways. The mercury in urban storm water sediment results in part from improperly discarded fluorescent lamps and tubes (Green Lights Recycling, 2012). Approximately 370 pounds of mercury were released in California in 2000 due to electric lamps and tubes breaking during storage and transportation. It is estimated that nearly 75 million waste fluorescent lamps and tubes are generated annually in California and these lamps and tubes contain more than half a ton of mercury. Because they are considered a hazardous waste, all fluorescent lamps and tubes must be recycled or taken to a so-called "universal waste" handler.

Lead-based paint was commonly used prior to 1960 and is likely present in buildings constructed before 1960. Lead is toxic to humans, particularly young children, and can cause a range of human health effects, depending on the level of exposure. When adhered to the surface of the material on which it is painted, lead-based paint poses little health risk. Where the paint is delaminated or chipping, the paint can cause a potential threat to the health of young children or other building occupants who may ingest the paint. Lead dust could also present public health risks during demolition of a structure with lead-based paint. Lead-based paint that has separated from a structure may also contaminate nearby soil. Lead-based paint is defined by 17 CCR 35033 as paint containing lead at a concentration of 5,000 mg/kg (0.5 percent) or greater. Separated paint would be considered a hazardous waste if the lead concentration exceeds the total threshold limit of 1,000 mg/kg, if the soluble lead concentration exceeds the soluble threshold limit concentration of 5 mg/L, or the federal toxicity regulatory level of 5 mg/L (22 CCR 66261.24).

There are five structures on the site that would be demolished under the proposed project. These include the Ranch House constructed around the turn of the 20th Century and subsequently modified and an open sided barn as well as three additional buildings. Based on their age, these structures could include hazardous building materials.

HOUSEHOLD HAZARDOUS WASTE MANAGEMENT

Household hazardous waste is a hazardous waste that is generated incidental to owning or maintaining a place of residence. Examples of common household hazardous wastes include antifreeze, household batteries, compressed gas cylinders, television/computer monitors, consumer electronic devices, home-generated sharps, oil-based paints, latex paints, motor oil, used oil filters, rodent poison, gasoline, fluorescent lamps, partially used aerosol containers, and weed killers. In Pleasanton, these materials may disposed of at one of four household hazardous waste drop off facilities operated by the Alameda County Household Hazardous Waste program in Fremont, Hayward, Oakland, and Livermore. Electronics such as televisions, computers, monitors, televisions, cell phones and other household electronics, referred to as e-waste, can be dropped off at the Pleasanton Transfer Station.

WILDLAND FIRE HAZARDS

Meteorology. Weather conditions significantly impact the potential for fire ignition, as well as the rate, intensity, and direction in which fires burn. Wind, temperature, and humidity are the more important weather variables used to predict fire behavior.

Wind is considered the most variable and difficult weather element to predict. However, wind direction and velocity profoundly affect fire behavior. Wind increases the flammability of the fuels by removing moisture through evaporation and by pre-heating the fuels in the fire's path.

Wind velocities and directions may vary in vertical elevation, with somewhat different impacts on fire behavior. The direction and velocity of surface winds can directly control the direction and rate at which

the fire spreads. Aloft winds, which move at least 20 feet above the ground, can carry embers and firebrands downwind, causing spot fires to precede the primary front.

Location Weather Conditions. Weather in the project site is consistent with a Mediterranean climate: warm, dry summers and cool, moist winters (mid-October to mid-April). Summer drought and winter rains create a wildfire season from May until October each year, and regulate the types of plants that would thrive on the Lunch Ranch. However, a low maritime cloud layer (fog) moves in during many early summer evenings. Because of its proximity to the bay, presence of the maritime layer sometimes keeps summer temperatures cool for several consecutive days--even when the fog is not directly over the project site.

While the wind normally blows from the west, the most severe fire danger occurs with strong north or northeast winds. Under these conditions (which are common in the fall), humidities drop to 10% and temperatures soar to over 100 degrees Fahrenheit (^{0}F). Winds from the northwest are also likely to cause unacceptable damage. At the end of "Diablo" wind conditions, fog often moves quickly onshore, preceded by a brisk, high-speed wind. Under these conditions, the fuels would be still dry from the previous weather, and the combination of the high wind and dry fuels would quickly spread the fire, even though the wind would be blowing the fire opposite to the direction of its uphill spread.

Additionally, occasional episodes of several stagnant days formed by stationary high pressure occur during the summer. During these times, continuous high temperatures and low relative humidities desiccate fuels to a point where National Fire Danger Rating System ratings exceed 81, indicating extreme resistance to control. This overall weather pattern also enhances the possibilities of ignition.

Temperature and humidity are used as a basis for fire danger warnings. These weather conditions act as guidelines for predicting fire behavior. The most important influence on fire behavior, however, is wind. Wind can greatly affect the direction and rate of spread and the heat output of a fire. This is particularly true in the exposed grasslands on the site. Wind also increases the flammability of the fuels by removing moisture through evaporation and by pre-heating the fuels in the fire's path. In conditions of low humidity, high temperature and high wind, a fire can quickly escape control. During the spring, summer and fall, winds are predominantly from the west to northwest at 3 to 15 miles per hour (mph). Occasional weak westerlies occur approximately 27% of the time and strong northwesterlies approximately 17% of the time. Calm periods occur approximately 10% of the time over the course of a year.

Fire management planning often revolves around more extreme weather conditions, usually the most extreme 10% of weather observations (see **Table 4.12-2**). Based on data from the weather station in southeastern Pleasanton, the hottest 10 percent of the days are those hotter than 101^{0}F. The driest days are those with relative humidity lower than 18%. Only 10% of the days are subject to winds stronger than 15 miles per hour (mph).

TABLE 4.12-2

TOP 10 PERCENT OF DAILY AVERAGES BY MONTH

	May	June	July	August	September	October
Temperatures	72^0F	75^0F	81^0F	83^0F	82^0F	73^0F
Wind	9 mph	9 mph	8 mph	8 mph	10 mph	13 mph
Relative Humidity	17%	15%	13%	12%	16%	25%

NOTE: Southeastern Pleasanton: latitude: 37.646081, longitude: 121.862128, elevation: 352 feet.

Location of weather station:

Station ID:	RSP	Elevation	3060' feet
River Basin:	EAST BAY	County	ALAMEDA
Hydrologic Area:a	SAN FRANCISCO BAY	Nearby City	MILPITAS
Latitude:	37.5020 N	Longitude	121.7360 W
Operator”	East Bay Regional Parks Fire-Rescue Services	Data Collection	SATELLITE

SOURCE: Wildland Resource Management (2012)

Fuels/Vegetation Types. The term "fuel" is used to describe any material that will burn, whether vegetative or structure component. A single fire may consume shrubs, grasses, trees, woodpiles, and homes as fuels.

Fire managers in virtually all US agencies (as well as in other countries where wildland fire hazards are significant) use fuel model systems for the various computerized fire behavior prediction systems (FBPS). Within the US, information regarding fuel volumes and fire-behavior descriptions is based upon fuel models (Rothermel, 1983). Fuel models relevant to the Lund Ranch project include grasslands, shrub lands, oak savanna and oak woodlands (with and without understory vegetation). Each fuel model is given a number designation, which is interpreted by fire managers across the continent to mean the same thing.

The structure (or arrangement) of the vegetation is just as important as the kinds of plants that make it up. The most significant factor is the amount and distribution of smaller-diameter fuels, because these materials generally spread wildland fires. While containment is a crucial aspect of fire suppression, fire intensity is the factor most closely linked with structure loss.

Another important factor is the amount of dead biomass and the ratio of live-to-dead material in terrain with significant brush and numerous tree stands, since dead biomass contributes fine fuel litter as well as carrying flames more readily. Fuel models include these considerations.

This section describes current conditions and conditions that would develop over time without fuel management. For example, even though shrubs constitute a very small area in the Open Space, they can be anticipated to expand in the grasslands on the open space hillsides and thus is addressed. In determining the appropriate fuel model to use for an area, it is critical to consider the fuel that will

actually carry the fire. The vegetation type corresponds reasonably well to the fuel type on the site. But in some cases a sparse stand of oak trees, or an individual oak with a grass understory, would best be characterized as a grassland fuel model because the oaks within the grassland do not contribute much to fire behavior -- they are too large to ignite easily, and the height at which branches start is generally too high to be involved in the fire.

The vegetation of the project consists of annual non-native grasses and oak savannas in the drainages. The annual grasses cover approximately 80% of the open space, the oak savanna covers approximately 20%.

Annual Grasslands. All lots abutting the open space contain at least a small patch of grasslands. Currently, the slopes of the project site are covered with annual grasses. The area outside development envelopes will continue to be a naturalized grassland and sparsely-treed oak savannas, however, agricultural uses such as grazing, animal keeping, and horticulture are allowed uses and may change the character of the grassland hillsides. This fuel type also includes stubble or grazed grass. Grassland covers slightly more than a majority of the site.

Grassland fuels are fairly uniform and homogeneous compared to other fuel types. Grassland fuel models have little biomass, made entirely of fine herbaceous material that dries out in the summer. This material responds to changes in humidity and is easily ignited in dry periods. Fires in grasslands do not produce much heat, but they produce a fire that travels quickly. Therefore, containment is the greatest challenge posed by these fuel types. In particular, grass can serve as a wick for more hazardous fuels whose ignition is apt to cause greater damage. Grass thus provides an avenue for fire to travel to densely vegetated areas, which are apt to cause more damage.

Oak Savanna. Oak Savanna is the typical fuel type found south of the developed portion of the Project. This fuel type covers approximately one –third of the site further away from the home sites. Typically these canopies of the oaks do not usually touch, and the oak cover is deciduous, or thin enough to allow a grass ground cover.

Grass under oak trees generally stay green slightly longer than in open grasslands, however, once the grass is cured, ignitability and challenges to containment are the same as in the grasslands. When the understory grass is mowed, lower tree limbs pruned, and understory shrubs removed or shortened, fire intensity is low and torching is rare.

Approximately 50 percent of the fuels are comprised of material ¼ inch or smaller. A quarter of the fuels are between the size of ¼ inch and 1 inch in diameter. An eight of the fuels are of larger diameter – from 1to 3 inches in diameter. A minor component is comprised of live foliate. The fuel height is approximately one foot. In oak savannas or woodlands the primary carrier of the fire is grass or leaf litter beneath the tree canopy. Expected rate of spread and fireline intensities are moderate to high. The history of grazing on the site has created a canopy height that is high enough to generally prevent torching of oak

trees if the grasses are short beneath the trees (through grazing or other means). Where clumps of fuels - understory shrubs or accumulations of limbwood - exist, these generate higher intensities and may produce firebrands, especially when positioned on ridgetops. With more developed understory vegetation, the fuel model changes to scrub or chaparral. **Table 4.12-3** compares the fire intensity of grasslands, oak savannas and north coastal scrub.

TABLE 4.12-3

FIRE BEHAVIOR PREDICTIONS IN THE FUEL MODELS

	Fuel Moisture	
Fuel Type	**Low**	**Medium**
Grassland	95	74
Rate of Spread (feet/minute)		
Fireline Intensity (BTU/foot/second)	162	112
Flame Length (feet)	5	4
Oakl Savannah	40	27
Rate of Spread (feet/minute)		
Fireline Intensity (BTU/foot/second)	369	215
Flame Length (feet)	7	5
North Coastal Scrub	33	11
Rate of Spread (feet/minute)		
Fireline Intensity (BTU/foot/second)	416	72
Flame Length (feet)	7	3
Standard Environmental Factors	**Low**	**Medium**
Midflame Windspeed = 4 mph		
Fuel Moisture		
- 0 to 1/4 inches diameter	3	6
- 1/4 to 1 inches diameter	4	7
- 1 to 3 inches diameter	5	8
Live Herbaceous Material	70	120
Live Foliage of Woody Plants	70	120

NOTES: Chart of fire-behavior predictions using BEHAVE subprogram TSTMDL, standard environmental factors of low and medium for the fuel types presently found in the development, a 20% slope steepness, and a wind parallel with the slope (In this case, westerly winds). Oak woodlands are included as a contrast to annual grasslands.

SOURCE: Wildland Resource Management (2012)

North Coastal Scrub. North coastal scrub is found interspersed with grass and oaks, and only rarely is it founding fully developed stands. It is comprised of small woody shrubs and vines such as coyote brush, poison oak, blackberry, monkeyflower and sage. If the areas of annual grass are not managed, this fuel type will cover much of the development. Approximately 25% of the annual grass on the site could be invaded by north coastal scrub in the next 15 years without disturbance.

Total fuel volumes are approximately 5 tons per acre, with most of the fuels occurring in the smaller diameter size classes. A preponderance of dead fuels can be found in the smallest size class, those smaller than ¼ inch in diameter. The proportion of dead material in mature stands is usually quite high –

an equal proportion of living and dead material is often found. Additionally, live foliage on the plants comprises over half of the total fuel load.

Fire behavior is not normally explosive, however, it was this fuel type that fueled the Oakland Fire of 1991. Rates of spread are quite fast, but flame lengths are usually shorter than five feet and heat output is minimal.

Landscaped Areas. A diverse species mix will be planted as Project landscaping around the residences. These include ornamental flowering and deciduous trees, and native evergreen and deciduous oaks. The planting list also indicates a mix of shrubs and groundcovers in these areas.

Even though almost all of the area to be landscaped will be stripped of vegetation during the grading process, topsoil and amendments will allow for vegetation to develop over time. Because this type of vegetation is situated nearest structures and evacuation routes, this fuel type can be the most damaging or provide an additional layer of safety/protection.

Domestic landscapes typically fall into a spectrum of fire hazards:

1. Landscapes are moist, and therefore will not burn;
2. They contain large amounts of fuel, which will burn with great intensity;
3. They contain fire-resistant plants, and will burn slowly with little resistance to control, or
4. They are maintained to be of low fuel volume, so provide little heat when they do burn.

Problems to avoid in landscaped areas are poor maintenance, breakage in irrigation pipes, and unremoved dead plant material. These problems can result in a large dead-fuel component amounting to a large volume of fuel.

The resulting fire behavior is rather benign. Rates of fire spread are slow, approximately 2 feet per minute. Flame lengths are predicted to be one foot. Leisurely spread rates, combined with the relatively short flame lengths of the predicted fire behavior demonstrate a manageable, moderate fire hazard in this fuel type.

On-site Hazards and Risks. Due to proximity of ignition sources (children playing with matches, mechanical equipment malfunctions, etc.), homes adjacent to open space - both public and private - are slightly more at risk from fire than undeveloped land. Homes adjacent to open space are similarly more prone to fire damage than those in an urban setting because of the proximity to fuel in the form of grass, brush and tree debris.

Grass fires that are driven by the wind upslope are generally among the most challenging to contain. In the Bay Area, winds that blow from the north (which are normally drier than westerly or southerly winds) pose the greatest threat of causing a large wildfire. Therefore, homes located to the above or to the south of an open space are the most vulnerable to potential spread of fire. Winds from the west blow a large

majority of the time; if homes are located to the east of the open space, typical westerly winds carry with it a potential for fire spread from a grass fire. The canyon in which the project is located is aligned with the prevailing westerly winds. This configuration would tend to "push" the fire to the east, and advance it away from the bulk of structures in Pleasanton. The major ridges to the north of the project will generally block northerly winds which are normally drier, and are accompanied by fast-moving fires.

Normally, trees provide another potential fire hazard because of the possibility of a fire burning the tree crowns. In doing so, countless embers are generated, lofted into the air, and carried sometimes far away. In this manner, many new "spot" fires start, causing severe challenges for containment by the fire department. At the project site, however, the existing trees and understory vegetation do not have crowns that are suitable for carrying fire.

4.12.2 REGULATORY FRAMEWORK

CITY OF PLEASANTON REGULATIONS

Section 20.24.010 of the Municipal Code adopts the California Code of Regulations Title 24, Part 9 (California Fire Code) into Chapter 20.24 Fire Code of the Municipal Code. This Code requires, among other issues, the following items that relate to wildfire hazard: provision of access for fire apparatus and provision of water supply for fire protection. It also requires the preparation of a wildfire protection plan, also called a WUIP to address potential wildland fire risks.

The project area is located in the "Special Fire Protection Area" noted in the Pleasanton General Plan, outside the five-minute response time standard and in a high wildland fire hazard area. For these reasons, the project developer and/or future lot owner/contractors shall be subject to additional mitigation measures aimed at reducing the risk of damages from wildfire.

Section 17.16 of the Municipal Code sets forth requirements related to tree preservation including protection of existing trees, pruning and maintenance, and emergency actions. Section 17.16.080 sets forth pruning and maintenance requirements.[3] Heritage trees include any of the following:

1. Any single-trunked tree with a circumference of fifty-five inches or more measured four and one half feet above ground level.

2. Any multi-trunked tree of which the two largest trunks have a circumference of fifty-five inches or more measured four and one half feet above ground level.

[3] All pruning of Heritage trees shall be performed by a licensed contractor familiar with International Society of Arboriculture pruning guidelines and shall comply with the guidelines established by the International Society of Arboriculture, Tree Pruning Guidelines, current edition and any special conditions as determined by the Director. For developments which require a tree report, a certified or consulting arborist shall be in reasonable charge of all activities involving Heritage trees. (Ord. 1737 § 1, 1998)

3. Any tree thirty-five feet or more in height.

4. Any tree of particular historical significance specifically designated by official action.

5. A stand of trees the nature of which makes each dependent upon the other for survival or the area's natural beauty.

THE CALIFORNIA BUILDING CODE AND UNIFORM FIRE CODE

Section 20.08.010 of the Municipal Code adopts the 2012 International Building Code as amended and set forth in the California Building Code (24 CCR, Part 2). The code requires exterior structural design and construction become ignition resistant and covers roofing and attic venting, exterior walls, structure projections, including, but not limited to, porches, decks, balconies, and eaves, and structure openings, including, but not limited to, eave vents and windows. The newest portion of this code adopted by the State and municipalities in California is the requirement for residential fire sprinklers in all new one-and two-family dwellings and townhouse construction statewide.

ACCESS AND CIRCULATION STANDARDS

The City of Pleasanton's standards relevant to emergency access require all streets, public and private, to be at least 20 feet clear, with a minimum inside turning radius of 45 feet and an outside turning radius of 55 feet. The minimum vertical clearance is 13.5 feet and maximum grade is normally 12 percent. All public and private roads/driveways will be designed with grades generally conforming to the 2001 California Fire Code maximum of 12%. The Fire Marshal may accept road grades greater than that percent. Except for the private driveway aprons, all public and private roads/ driveways shall be designed to carry a minimum H-20 road loading rating under all weather conditions. All curbs located with a seven-foot, six-inch radius of a public/private fire hydrant shall be painted red, unless modified by the Fire Chief.

4.12.3 CONFORMANCE WITH LOCAL PLANS AND POLICIES

CITY OF PLEASANTON GENERAL PLAN

General Plan Policies	Project Analysis
Public Safety Element	
Policy 8: Provide an adequate level of fire and emergency medical equipment and personnel to protect the community. *Program 8.2: Require new development to pay for fire safety improvement needs generated by new development.*	The project sponsor shall be required to construct and finance water facilities for emergency services. The Homeowners' Association (HOA) shall be required to pay for annual inspections.
Policy 10: Strive to respond to all emergency fire-related calls within seven miles of the time the call	A Wildland Urban Interface Plan (WUIP), which has been prepared and is included in Appendix E, details

General Plan Policies	Project Analysis
for service is received 90 percent of the time.	mitigations for increased fire risk and potential loss from wildfire. Mitigation Measure 4.12-5c requires the WUIP to be implemented.
Program 10.1: Deny proposed developments not within a five-minute travel time of a Fire Station unless acceptable mitigations are provided.	
Program 10.2: Develop a system of fire hazard mitigations based on the probability of occurrence and number of people at risk.	The WUIP, required in Mitigation Measure 4.12-5c and included in Appendix E, details mitigations for increased fire risk and potential loss from wildfire.
Policy 11: Maintain or improve the City's existing Insurance Services Office fire-protection rating of three.	The project sponsor shall construct and finance water facilities for emergency services. The HOA shall be required to pay for annual inspections.
Program 11.1: Require developers to finance and construct necessary water facilities for their projects when they develop.	
Program 11.2 Require that all new developments be provided with sufficient fire-flow facilities at the time of development at least at the level specified by the Fire Chief.	The project sponsor shall comply with Chapter 20.24 of municipal code, regarding fire flow.
Program 11.3. Implement the Fire Prevention Bureau's public education programs.	The project shall include a Fire Safety Awareness Program to address wildland fire safety and the Program provisions shall be incorporated into the CC&Rs of the proposed development. Alternatively or in addition to this, an Open Space Maintenance District shall be formed to ensure regular and routine vegetation management for fire safety purposes.
Policy 12: Upgrade the level of fire resistivity in all new and remodeled structures	All structures will be built with ignition-resistant features, per Chapter 20.24 of the Municipal Code.
Program 12.1 Continuously update and enforce the City's Fire and Building Codes as new technologies occur.	The WUIP, required in Mitigation Measure 4.12-5c and included in Appendix E, requires a review and update every five years.
Policy 13: Require fire mitigation measures in new and existing developments that reduce the fire threat to the structure and occupants. Require development outside the five-minute travel time and in Special Fire Protection Areas to provide effective fire prevention measures.	The WUIP, required in Mitigation Measure 4.12-5c and included in Appendix E, requires on-going vegetation management, annual inspections, and education in addition to compliance with municipal codes regarding ignition-resistant construction, access and water supply.
Program 13.1: Require the installation of building and fire code compliance fire-detection and alarm equipment in residential and commercial structures.	All buildings will have a fire detection and alarm system installed, per Municipal Code 20.24.150 CFC.
Program 13.2: Install automatic fire sprinkler protection in certain structures as required by adopted City ordinances.	All structures will have automatic fire suppression sprinklers per 20.24.180 CFC Section 903.3.1.3 of the Municipal Code.
Program 13.3: Encourage the installation of automatic sprinkler systems in all new construction.	All structures will have automatic fire suppression sprinklers per 20.24.180 CFC Section 903.3.1.3 of the Municipal Code.

General Plan Policies	Project Analysis
Program 13.4: Provide adequate fire-equipment access to all structures in the city.	All proposed roads comply with City codes, and all buildings are sited to allow access to fire equipment.
Program 13.5: Partner with the California Department of Forestry and Fire Protection and Firewise Communities to identify measures that reduce the fire threat in Special Fire Protection Areas.	Many requirements in the WUIP are repeated in the FireWise Communities and in CalFire's guidelines for residential communities in/near wildlands.
Program 13.6: Where appropriate in Special Fire protection Areas, require development to incorporate Wildland interface mitigation measures such as greenbelts, defensible space around structures, and other preventative measures.	The project sponsor will comply with approved fire codes and standards regarding fire flow.
Program 13.7: Require all projects in the Special Fire Protection Areas seeking building or planning approval to landscape with fire resistant plant materials.	Landscaping will be fire resistant and all vegetation in yards will be maintained per performance standards established in the WUIP.
Policy 17: Ensure that hazardous materials are not released as a result of construction activities and that any existing hazardous materials and potential contamination are remediated prior to development. *Program 17.1: When reviewing applications for new development in areas historically used for commercial or industrial uses, the City shall require environmental investigation as necessary to ensure that soils, groundwater, and buildings affected by hazardous material releases from prior land uses, and lead and asbestos potentially present in building materials, would not have the potential to affect the environment or the health and safety of future property owners or users.*	Although the project is not located on property historically used for commercial activities, historic ranch-related activities have resulted in soil contamination that has been remediated. The potential to encounter hazardous materials in soil is addressed in Impact 4.12-2, and this potentially significant impact is reduced to less than significant with implementation of Mitigation Measure 4.12-2 requiring implementation of a contingency plan to address previously unidentified soil contamination. There are also on-site buildings that may include hazardous building materials. The potential to encounter these materials is addressed in Impact 4.12-3, and this significant impact is reduced to less than significant with implementation of Mitigation Measure 4.12-3 which requires a hazardous building materials survey and abatement of hazardous building materials prior to demolition of the existing buildings.
Policy 19: Ensure convenient access for Pleasanton residents for the disposal of household hazardous wastes. *Program 19.1: Support Alameda County's effort to provide a local drop-off point for household hazardous waste.*	Impacts associated with the increased generation of household hazardous wastes are discussed in Impact 4.12-1. The Alameda County Household Hazardous Waste program has four drop off facilities located in Fremont, Hayward, Oakland, and Livermore, but none in Pleasanton. Because there is not a local facility and many residents may not be knowledgeable in the identification of hazardous wastes and appropriate disposal requirements, impacts related to the increased generation of household hazardous waste are considered potentially significant, but would be reduced to less than significant with implementation of Mitigation

General Plan Policies	Project Analysis
	Measure 4.12-1 requiring a buyer education program for household hazardous waste.

4.12.4 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

The following thresholds of significance are based on Appendix G to the 2012 *California Environmental Quality Act* (CEQA) Guidelines. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- 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, would the project result in a safety hazard for people residing or working in the project area; or
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Based on project characteristics, no impacts are anticipated with respect to the following topics:

- *Hazardous Emissions and use of Hazardous Substances within ¼-mile of a School.* Hazardous air emissions are toxic air contaminants identified by the California Air Resources Board and the Bay Area Air Quality Management District. Extremely hazardous materials are defined by the State of California in Section 25532 (2)(g) of the Health and Safety Code. During project

construction, only common hazardous materials such as paints, solvents, cements, adhesives, and petroleum products (such as asphalt, oil, and fuel) would be used, none of which are considered extremely hazardous materials. The only toxic air contaminant that would be emitted during construction is diesel particulate matter (DPM) (see Section 4.8, Air Quality). There would be no use of extremely hazardous materials or emissions of toxic air contaminants once the project is constructed. Furthermore, there are no schools located within ¼-mile of the proposed project. Therefore, there is no impact related to hazardous emissions and use of hazardous substances within ¼-mile of a school.

- *Location in the Vicinity of a Public or Private Airport.* The project site is located approximately 4.5 miles southeast of the Livermore Municipal Airport, outside of the airport influence area. There are two private heliports in Pleasanton at Hacienda Business Park and Valleycare Medical Center. Both of these heliports are located more than 3 miles to the north of the proposed project. Therefore, the residents would not be subject to safety hazards resulting from residing in the vicinity of a public airport or private airstrip.

Impact 4.12-1: The proposed project would result in increased generation of household hazardous wastes that could cause human health and environmental effects if improperly disposed. (Less than Significant with Mitigation)

Development of a new residential subdivision would result in an increase in the generation of household hazardous wastes that are typical of any residential area. Common household hazardous wastes such as paint, pesticides, used oil and antifreeze, could result in direct or indirect effects on human health and the environment if not appropriately handled and disposed of. In addition to water quality impacts from stormwater runoff, other potential impacts could result from improper handling or disposal of hazardous household chemicals. As described in the Setting section, the Alameda County Household Hazardous Waste program operates four household hazardous waste drop off facilities in Fremont, Hayward, Oakland, and Livermore. Electronics such as televisions, computers, monitors, televisions, cell phones and other household electronics, referred to as e-waste, can be dropped off at the Pleasanton Transfer Station. Although Pleasanton residents can drop off household hazardous waste at these facilities, the project's impacts related to the generation and disposal of hazardous waste would be potentially significant because not all residents are knowledgeable in the identification of hazardous wastes and appropriate disposal requirements. This impact would be reduced to less than significant with implementation of Mitigation Measure 4.12-1, which requires implementation of a Buyer Education Program to educate residents about the identification of household hazardous wastes, appropriate disposal methods, and available drop off facilities.

Mitigation Measure 4.12-1: *The project sponsor, working with the City of Pleasanton and Alameda County Household Hazardous Waste Program, shall implement a Buyer Education Program for Household Hazardous Waste, developing materials to educate buyers about the identification of household hazardous wastes, appropriate disposal methods, and available drop off facilities. At a*

minimum, the materials shall provide a list of example household hazardous wastes, discuss the environmental impacts of improper disposal, and provide a list of available drop off facilities. The educational materials shall be provided to the buyer at the time of purchase.

Impact Significance After Mitigation: Less than significant.

Impact 4.12-2: Excavation for the proposed project could potentially encounter previously identified soil contamination, potentially exposing workers and the public to hazardous materials, or resulting in a release to the environment during construction. (Less than Significant with Mitigation)

As discussed in the Setting, based on a Phase 1 Environmental Site Assessment for the project site, potential sources of contamination at Lund Ranch included a 300-gallon gasoline underground storage tank (UST), a 500-gallon gasoline UST, two above ground 80-gallon fuel oil tanks, an above ground diesel tank, accumulated drums in three locations along with a car chassis, and storage of batteries in one location. The USTs were removed in 1975. Soil in each of these areas was sampled to evaluate the potential for soil contamination, and soil was excavated from four of these locations. With the exception of the drum and car chassis area, the final chemical concentrations detected at each location was below the RWQCB ESL. At the car chassis location, the concentration of total petroleum hydrocarbons in the soil was 2,700 mg/kg, in excess of the ESL of 83 mg/kg. However, the concentration was detected is a soil sample from a depth of 13.5 feet and the excavation has been backfilled with clean pea gravel.

Based on historic uses on the site as a blacksmith shop and slaughterhouse, hazardous materials such as metals and oil and grease could potentially be identified in the soil at these locations. If previously unidentified hazardous materials were present in the soil within the proposed project site, they could be encountered by construction workers during site grading, trenching for installation of underground utilities, and construction of foundation systems. If improperly managed, exposure of workers and the community to hazardous materials could occur through inhalation of contaminated dust, dermal contact with contaminated substances, or through direct or indirect ingestion. If present in the surficial soils, hazardous substances could also be encountered by future residents unless appropriately remediated to prevent exposure.

Based on historic uses of the site and soil contamination remaining on-site at the former drum and car chassis location, impacts related to the potential to encounter hazardous materials in the soil would be potentially significant. This impact would be reduced to less than significant with implementation of Mitigation Measure 4.12-2, which requires the construction contractor(s) to observe for previously unidentified hazardous materials and have a contingency plan for sampling and analyzing potential hazardous materials in soil.

Mitigation Measure 4.12-2: Contingency Plan. *The project sponsor shall require the construction contractor(s) to observe for previously unidentified hazardous materials and have a contingency plan for*

sampling and analysis of potential hazardous materials in soil. If any hazardous materials are identified, the contractor(s) shall be required to prepare a Health and Safety Plan, conduct sampling to assess the chemicals present, and identify appropriate disposal methods. Evidence of potential contamination includes soil discoloration, suspicious odors, the presence of USTs, or the presence of buried building materials. The project sponsor shall also be required to notify the regulatory agencies if the concentration of any chemical exceeds its respective screening level. The assigned lead agency shall oversee all aspects of the site investigation and remedial action and determine the adequacy of the site investigation and remediation activities at the site.

Impact Significance After Mitigation: Less than significant.

Impact 4.12-3: Demolition of the existing ranch structures at the project site could potentially expose workers and the public to hazardous building materials including asbestos-containing materials, lead-based paint, PCBs, DEHP, and mercury, or result in a release of these materials to the environment during construction. (Less than Significant with Mitigation)

As noted above in the Setting, the existing ranch buildings were constructed in somewhere near the turn of the 20th Century. Based on their age, asbestos-containing materials and lead-based paint may have been used in their construction. In addition, fluorescent light tubes containing mercury vapors, fluorescent light ballasts containing polychlorinated biphenyls (PCBs) or (2 ethylhexyl) phthalate (DEHP), and PCB containing electrical equipment may be present in the buildings that would be demolished. If friable or non-friable asbestos is present, there is a potential for release of airborne asbestos fibers when the asbestos-containing materials are disturbed, unless proper asbestos abatement precautions are taken. Such a release could expose the construction workers and surrounding populations to airborne asbestos fibers. Similarly, if lead-based paint is present and has delaminated or chipped from the surfaces of the building materials, there is a potential for the release of airborne lead particles, unless proper lead abatement procedures are followed. If PCBs are present in the building to be demolished, leakage could expose workers to unacceptable levels of PCBs (greater than 5 parts per million, based on California Code of Regulations, Title 22). Removal of fluorescent light tubes and fixtures could result in exposure to mercury vapors if the lights are broken or exposure to DEHP if present in the light ballasts.

Potential exposure to hazardous building materials during building demolition would be potentially significant, but mitigated to a less-than-significant level with implementation of Mitigation Measure 4.12-3, which requires the project sponsor to conduct surveys for hazardous building materials prior to demolition, and if warranted, to implement appropriate abatement and disposal procedures in compliance with applicable regulations.

Mitigation Measure 4.12-3: *Prior to demolition of the on-site buildings, the project sponsor shall ensure that a Hazardous Building Materials Survey is completed by a Registered Environmental Assessor or a registered engineer to confirm the absence or presence of asbestos-containing materials and lead-based paint in structures to be demolished. This survey shall be completed prior to any demolition activities*

associated with the project. Adequate abatement practices, such as containment and/or removal for all asbestos-containing materials and lead-based paint, shall be implemented in accordance with applicable laws prior to demolition. Any PCB-containing equipment, fluorescent light tubes containing mercury vapors, and fluorescent light ballasts containing DEHP shall also be removed and legally disposed of.

Impact Significance After Mitigation: Less than significant.

Impact 4.12-4: Project construction activities would result in a temporary increase in fire risks at the site. (Less than Significant with Mitigation)

Project construction activities would pose temporary, but potentially significant fire risks. Sparks generated by construction-related welding and cutting activities would be potential sources of ignition. In addition, operation of mechanical equipment during periods of high fire danger would create the potential for sparks to ignite a fire. Mechanical equipment use is the most common cause of fires in Alameda County in 2008-2010 (CalFire Wildfire Activity Statistics, 2008-2010). Implementation of fire prevention measures in Mitigation Measures 4.12-4a and 4.12-4b would reduce temporary fire risks to a less-than-significant level.

Mitigation Measure 4.12-4a: *During periods of high fire danger or during red flag conditions, all construction activities that could create sparks shall cease. All mechanical equipment shall be equipped with approved spark arrestors and comply with California Public Resources Code (PRC) Sections 4431, 4435, 4442 and 4437 to limit potential for ignition of incidental fires.*

Mitigation Measure 4.12-4b: *Comply with the WUIP, which requires that vegetation be managed, that hydrants be operational, and that an approved Fire Prevention Plan be completed prior to construction. The Fire Prevention Plan requires on-site fire suppression resources to include shovel, water pump, fire extinguisher, and two-way radio or communications for fire reporting.*

Impact Significance After Mitigation: Less than significant.

Impact 4.12-5: Development and occupation of project homes and maintenance of the project's open space areas would increase fire risks at the project site. (Less than Significant with Mitigation)

The project's fire hazard risks are based upon an analysis of the fuels and topography that influence fire behavior. The potential effectiveness of fire suppression efforts as influenced by access and water supply on the project site is also considered in this evaluation. Actions to reduce fire hazard are generally concentrated around the edges of the open space in order to limit spread to the site. Additionally, actions are taken to prevent a fire from spreading into the crown of a tree so that embers are not produced and distributed long distances.

The project site and surrounding undeveloped lands contain grasslands and woodland areas designated by CalFire as containing "High" fire hazard severity zone rankings. The construction of proposed homes would introduce a residential population to the project site. The placement of people and structures within a wildland interface zone would increase the risk of exposure of people and property to wildfires, and/or increase the potential for spread of wildland fire to existing adjacent residential development. In addition, increased human activity on the project site would increase the potential for inadvertent fires that could spread to the adjacent wildland area or adjacent residential development.

Approximately 28 of the 50 proposed homes would abut open space areas and they would be at increased risk of exposure to wildfires because of their proximity to open space. All proposed homes located south of Lund Ranch Road (Lots 35 to 50) and those proposed on Lots 5, 8, 14, 15, 22 through 25, 31 and 32 would abut open space areas. Of these, only Lot 32 is situated above a long slope of vegetation, and the risk of exposure to wildfire on this lot would be significant. This risk would be reduced to a less-than-significant level with implementation of appropriate fire management measures identified in Mitigation Measures 4.12-5a through 4.12-5c. Lots located north of Lund Ranch Road that are proposed to be located adjacent to open space areas would all be located below or at the base of wildland slopes, reducing their risk of exposure. Lots south of Lund Ranch Road would be located near the bottom of the slope near a riparian area, which is less likely to ignite and carry fire.

Over time, the numerous landscape trees planted by project residents along with a shift away from grazing use would cause on-site vegetation to change. The oak savanna would become increasingly covered with oaks, which would change the fuel type to one that would support slower fire spread and less dramatic flame lengths. However, this effect could be offset somewhat as brush associated with northern coastal scrub become more common over time as grazing pressure is reduced or stopped.

Adequacy of Emergency Access. Vehicle access would be provided by an eastward extension of Lund Ranch Road. This approximately 1,600-foot long street would be the only street access. All streets and driveways would be publicly-owned. All road dimensions would be consistent with requirements of the Livermore Pleasanton Fire Department. The maximum road grade would be 6% and the turning radii of proposed cul-de-sacs would be a minimum of 42 feet; road widths would conform to City road standards. Although the project development would be within the five-minute travel time, it is within a Special Fire Protection Area, which requires provision of effective fire prevention measures. Program 13.4 indicates that adequate fire equipment access should be provided to all structures. Since the proposed plan would provide street access to all proposed structures, potential impacts related emergency vehicle access would be less than significant. However, no secondary emergency vehicle access is proposed to the project or any specific lots.

Maintenance and Residential Activities. Maintenance activities would increase fire risks from operation of small motors such as mowers, chain saws, weed whippers etc., a potentially significant impact. Homeowners often cut grass after it has dried; this operation can start fires during dry, windy conditions.

Section 203A.1 of the Pleasanton Building Administrative Code provides guidelines for Substandard buildings:

> *H. Any building or portion thereof including any dwelling unit, guestroom or suite of rooms, or the premises on which the same is located, in which there exists any of the following listed conditions to an extent that endangers the life, limb, health, property, safety, or welfare of the public or the occupants thereof shall be deemed and hereby is declared to be a substandard building.*
>
> *J. Those premises on which an accumulation of weeds, vegetation, junk, dead organic matter, debris, garbage, offal, rodent harborages, stagnant water, combustible materials, and similar materials or conditions constitute* fire, *health, or safety hazards.*

All buildings or portions thereof which are determined to be substandard are declared to be public nuisances and may be abated by repair, rehabilitation, demolition or removal in accordance with the procedure specified in the International Property Maintenance Code, the Pleasanton Dangerous Buildings Code or by any other remedy available at law.

Increased population in a previously undeveloped area is accompanied by increased risk of ignitions, due to children playing with matches, vehicular fires, unsafe barbeques, and other causes. People cause almost all the fires in Alameda County. Since the project would increase human activity in a currently undeveloped area, the fire risk would also increase, a potentially significant impact. Implementation of Mitigation Measures 4.12-5a through 4.12-5c would reduce potential fire risks to a less-than-significant level.

Secondary Effects of a Wildfire. A wildfire could burn into adjacent wildlands, which could cause sediment, harm wildlife habitat, and air pollution. A fire in the annual grasslands would not cause long-lasting damage because this vegetation type is completely adapted to fire's occurrence. The grass would grow back the following year, however the current year's crop of feed would be destroyed. Fences delineating property boundaries and serving as enclosures would likely be damaged from a wildfire; and the potential release of livestock is a consequence of wildfire. A fire could cause much damage to some of the natural vegetation at this point in time, because the scorch heights and heat output could be high enough to cause damage to many of the oak trees. While a wildfire would create wildlife habitat from dead oak trees and new growth the following year, there would be long-term changes in views and aesthetics.

Surface erosion from early, heavy rains the following year may also be of concern in the event of a fire burn in the open space area. Erosion after a fire could cause sediment to the ponds, and degrade habitat in the wetlands. Otherwise, wildlife values at risk posed by the proposed project would be minimal, since fire does not normally degrade wildlife habitat associated with grasslands and oak woodland/savanna. A major fire would result in the death of certain animals. While most birds and larger mammals could

escape, many reptiles and amphibians, as well as many invertebrates might not be able to escape a fast-moving wildfire. Generally, wildlife populations would increase or decrease immediately after a fire, and would return to pre-fire numbers within a short time. While such secondary effects would be significant if a wildfire occurred in the open space area, implementation of measures contained in the Wildland Urban Interface Plan (Mitigation Measure 4.12-5c) would reduce the potential for wildfire and its secondary effects to a less-than-significant level.

Mitigation Measure 4.12-5a: *During periods of high fire danger or during red flag conditions, operation of equipment with small motors for vegetation/landscape maintenance shall be prohibited. All mechanical equipment shall have approved spark arrestors and comply with California Public Resources Code (PRC) Sections 4431, 4435, 4442 and 4437 to limit potential for ignition of incidental fires.*

Mitigation Measure 4.12-5b: *The project sponsor shall prepare a Fire Safety Awareness Program to address fire safe behaviors and fuel management. The project would include the disclosure of the Program's requirements as part of the CC&Rs for the project development. Alternatively, in consultation with the City, the proposed project could include the formation of an Open Space Maintenance District to ensure the implementation of routine maintenance measures for fire protection purposes.*

Mitigation Measure 4.12-5c: *The project sponsor shall incorporate design measures and implement fuel management measures listed in the Wildland Urban Interface Plan (WUIP is included as Appendix E). Vegetation management measures included in this Plan shall continue to be implemented according to the CC&Rs for the proposed residences, and/or an Open Space Maintenance District. This Plan presents measures to: make structures less ignition-prone; make vegetation burn with less intensity; educate and prepare residents regarding wildland fire; properly manage fuels on private lots and in the periphery of the open space; and ensure that fuel management inspections are conducted annually. The City shall review and update the WUIP every five years to ensure that it reflects any updates to the City's Fire and Building Codes..*

Impact Significance After Mitigation: Less than significant.

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4.13 ENERGY CONSERVATION

In order to assure that energy implications are considered in project decisions, the California Environmental Quality Act (CEQA) requires that environmental impact reports (EIRs) include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy [(see Public Resources Code Section 21100(b)(3)]. This section of the Code provides that EIRs shall include a detailed statement of a project's significant effects on the environment and mitigation measures proposed to minimize these significant effects, "including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." The *CEQA Guidelines* [(Section 15162.4(a)(1)(C)] require an EIR to discuss energy conservation measures when relevant. Appendix F to the *Guidelines* addresses energy conservation goals, notes that potentially significant energy implications of a project shall be considered in an EIR to the extent relevant and applicable to the project, and contains general examples of mitigation measures for a project's potentially significant energy impacts.

4.14.1 ENVIRONMENTAL SETTING

CALIFORNIA'S ENERGY SUPPLIES

In 2010, California's in-state (71% of total) supply of electricity was derived from the following sources: natural gas (53.4%), nuclear (15.7%), hydroelectric (14.6%), renewables (14.6%), and coal (1.7%) (CEC, 2014). California policies aimed at diversifying the state's electrical supply have reduced the reliance upon two fossil fuels (natural gas and coal) from more than 80% in 2006 to approximately 55% of the 2010 energy consumed in the state. Overall electricity demand is forecasted to increase an average of 1.2% (peak demand will increase by 1.3%) in 2010-2018, even with the more aggressive building and appliance energy efficiency standards and programs. In 2011, 47% of electricity consumption was in the residential sector, 40% in the commercial sector, and 13% in the industrial sector (Kavalec and Gorin, 2009; CEC, 2011).

California produces a relatively minor portion of its own natural gas supplies. In-state production in 2010 was approximately 12% of total supply, while the U.S. Southwest, the Rockies, and Canada provided approximately 42%, 23%, and 22% of the state's supply, respectively. By volume, California produced 734 million cubic feet (MMcf) of natural gas from the total demand for 6.041 MMcf for 2010.

A third major source of energy for California is crude oil. Oil supply sources for the state include in-state production, Alaska, and foreign imports. For 2011, California produced 38.22% of crude oil supplied to California refineries, while foreign sources and Alaska provided 49.94% and 11.84%, respectively, of the approximately 600 million barrels of crude oil delivered to refineries in the state.

ELECTRICITY AND GAS PROVIDERS

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas services to the City of Pleasanton. The buildings on the project site are served by PG&E facilities in Lund Ranch Road.

As part of the City's General Plan, the City has prepared an Energy Element. The Energy Element includes energy usage information for the community's residential and non-residential uses for the year 2005. For this period, residential development in Pleasanton used 209.9 million kilowatt-hours (Kwh) of electricity and 12.8 million therms[1] of natural gas (City of Pleasanton, 2009). Based upon existing residential development and actual energy use in 2005, PG&E estimates the average monthly energy usage was 695 Kwh and 42 therms per residential unit in the City.

4.9.2 REGULATORY AND PLANNING FRAMEWORK

FEDERAL

Energy Independence and Security Act of 2007. Signed into law in December 2007, this Act is an energy policy law that contains provisions designed to increase energy efficiency and the availability of renewable energy. The Act contains provisions for increasing fuel economy standards for cars and light trucks, while establishing new minimum efficiency standards for lighting as well as residential and commercial appliance equipment (CRS, 2007).

Energy Policy Act of 2005. Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. The act includes tax incentives for the following: energy conservation improvements in commercial and residential buildings; fossil fuel production and clean coal facilities; and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

National Energy Policy. Established in 2001 by the National Energy Policy Development Group, this policy is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future (NEPDG, 2001). Key issues addressed by the energy policy are energy conservation, repair and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

STATE

California Green Building Standards Code. The 2010 California Green Building Standards Code, as specified in Title 24, Part 11, of the California Code of Regulations, specifies building standards to improve public health, safety, and general welfare by enhancing the design and construction of buildings

[1] 1 therm is the heat energy equivalent of 100 cubic feet of natural gas.

through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in five categories: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. The provisions of this code apply to the planning, design, operation, construction, replacement, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout California. (In addition, as discussed under Pleasanton Green Building Ordinance, below, the City of Pleasanton adopted a (different) Green Building Code in 2002.)

Building Energy Efficiency Standards. The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the California Code of Regulations, were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The current version of the standards became effective on January 1, 2010. California's building efficiency standards (along with those for energy-efficient appliances) have saved more than $56 billion in electricity and natural gas costs since 1978. It is estimated that the standards will save an additional $23 billion by 2013 (CPUC, 2008).

The energy efficiency standards are expected to reduce the growth in electricity use in California by 561 gigawatt-hours per year (GWh/y) and reduce the growth in natural gas use by 19 million therms per year (CEC, 2010). The savings in electricity attributable to new nonresidential buildings is 459 GWh/y and the savings in natural gas use is 11.5 million therms.

The Energy Commission's 2013 Building Energy Efficiency Standards are 25% more efficient than previous standards for residential construction and 30% better for nonresidential construction. The Standards, which take effect on July 1, 2014 (CEC, 2013a), offer builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. For nonresidential buildings, improved measures in the 2013 Standards include:

- High performance windows, sensors and controls that allow buildings to use "daylighting;"
- Efficient process equipment in supermarkets, computer data centers, commercial kitchens, laboratories, and parking garages;
- Advanced lighting controls to synchronize light levels with daylight and building occupancy, and provide demand response capability;
- Solar-ready roofs to allow businesses to add solar photovoltaic panels at a future date; and
- Cool roof technologies

Two energy policy goals are driving the design of the current standards: The Loading Order, which directs that growing demand must be met first with cost-effective energy efficiency and next with renewable generation; and "Zero Net Energy" (ZNE) goals for new homes by 2020 and commercial

buildings by 2030. The ZNE goal means that new buildings must use a combination of improved efficiency and distributed renewable generation to meet 100% of their annual energy need.

Long Term Energy Efficiency Strategic Plan. In September 2008, the California Public Utilities Commission (CPUC) adopted the Long Term Energy Efficiency Strategic Plan, which provides a framework for energy efficiency in California through the year 2020 and beyond. The Strategic Plan was subsequently updated in January 2011 to include a lighting chapter (CPUC, 2011). The Plan articulates a long-term vision as well as goals for each economic sector, identifying specific near-term, mid-term, and long-term strategies to assist in achieving these goals. This Plan sets forth the following four goals, known as Big Bold Energy Efficiency Strategies, to achieve significant reductions in energy demand:

1. All new residential construction in California will be zero net energy by 2020[2];
2. All new commercial construction in California will be zero net energy by 2030;
3. Heating, Ventilation and Air Conditioning (HVAC) will be transformed to ensure that its energy performance is optimal for California's climate; and
4. All eligible low-income customers will be given the opportunity to participate in the low income energy efficiency program by 2020.

With respect to the commercial sector, the Plan notes that commercial buildings (which include schools, hospitals, and public buildings) consume more electricity than any other end-use sector in California. The commercial sector's 5 billion-plus square feet of space accounts for 38% of the state's power use and over 25% of natural gas consumption. Lighting, cooling, refrigeration, and ventilation account for 75% of all commercial electric use, while space heating, water heating, and cooking account for over 90% of gas use. In 2006, schools and colleges were in the top five facility types for electricity and gas consumption, accounting for approximately 10% of state's electricity and gas use.

The CPUC and Energy Commission have adopted the following goals to achieve zero net energy (ZNE) levels by 2030 in the commercial sector:

- Goal 1: New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100% penetration of new starts in 2030.
- Goal 2: 50% of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.
- Goal 3: Transform the commercial lighting market through technological advancement and innovative utility initiatives.

[2] Zero net energy (ZNE) is a general term applied to a building with a net energy consumption of zero over a typical year. To cope with fluctuations in demand, zero energy buildings are typically envisioned as connected to the grid, exporting electricity to the grid when there is a surplus, and drawing electricity when not enough electricity is being produced.

Governor's Green Building Executive Order (S-20-04). In 2004, this Executive Order was signed into law, committing the state to take aggressive action to reduce state building electricity usage by retrofitting, building, and operating the most energy and resource-efficient buildings by taking all cost-effective measures described in the Green Building Action Plan for facilities owned, funded or leased by the state and to encourage cities, counties and schools to do the same. It also calls for state agencies, departments, and other entities under the direct executive authority of the Governor to cooperate in taking measures to reduce grid-based energy purchases for state-owned buildings by 20% by 2015, through cost-effective efficiency measures and distributed generation technologies. These measures should include but not be limited to:

- Designing, constructing and operating all new and renovated state-owned facilities paid for with state funds as "LEED Silver" or higher certified buildings;
- Identifying the most appropriate financing and project delivery mechanisms to achieve these goals;
- Seeking out office space leases in buildings with a U.S. EPA Energy Star rating; and
- Purchasing or operating Energy Star electrical equipment whenever cost-effective.

The Order also required the Division of the State Architect in the Department of General Services to adopt guidelines by December 31, 2005, enabling and encouraging schools built with state funds to be resource and energy efficient. Pursuant to this requirement, the Division of the State Architect convened a schools workgroup and this group concluded that the best guideline to meeting this requirement is the *Best Practices Manual* by the Collaborative for High Performance Schools (CHPS).

Other State Legislation and Policies. Other statewide legislation and policies related to energy efficiency include the following:

California Global Warming Solutions Act of 2006 (AB 32). The Scoping Plan (adopted December 2008) recommends expanding and strengthening existing energy efficiency programs as well as building and appliance standards and sets a goal to achieve a statewide renewables energy mix of 33% (see Table 4.9-2 in Section 4.9, Greenhouse Gas Emissions, for more discussion of the project's consistency with the City's Climate Action Plan, which is also discussed below).

Renewable Portfolio Standard (SB 107) and Governor's Renewable Energy Executive Order (S-14-08). California's Renewable Portfolio Standard (RPS) calls for more energy to come from clean, renewable sources and accelerates the schedule for achieving the state's goal to have 20% of California's energy come from renewable energy sources. The RPS standard accelerated this goal to 2010 rather than 2017, seven years earlier than the statute. On November 17, 2008, Executive Order S-14-08 was signed into law, raising California's renewable energy goals to 33% by 2020 and streamlining licensing for renewable projects.

Renewable Portfolio Standard (SB 107). Million Solar Roofs Initiative. This initiative establishes an incentive plan to install one million solar roofs in California by the year 2018, provide 3,000 megawatts of clean energy and reduce greenhouse gas emissions by 3 million tons.

California Energy Action Plan II. The *Energy Action Plan II* continues the goals of the original *Energy Action Plan*, describes a coordinated implementation plan for state energy policies, and identifies specific action areas to ensure that California's energy is adequate, affordable, technologically advanced, and environmentally sound. In accordance with this plan, the first-priority actions to address California's increasing energy demands are energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods in order to address system reliability and support the best use of energy infrastructure). Additional priorities include the use of renewable sources of power and distributed generation (i.e., the use of relatively small power plants near or at centers of high demand). To the extent that these actions are unable to satisfy the increasing energy and capacity needs, clean and efficient fossil-fired generation is supported.

AB 2021, Establishment of Statewide Energy Efficiency Goals. This legislation requires all utilities, both investor-owned and municipal, to invest in all achievable cost effective energy efficiency programs in their service territories. This effort alone would reduce forecasted electricity demand by 10% over the next 10 years, offsetting the need to build 11 major power plants. While some municipal utilities have set strong energy efficiency goals, many others have not. Therefore, AB 2021 codifies a process just completed by investor-owned utilities with the CPUC to determine energy efficiency goals over the next three years to prevent the need for generation of over 30,000 gigawatt-hours.

Integrated Energy Policy Report. SB 1389 required the California Energy Commission (CEC) to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. The CEC adopts an Integrated Energy Policy Report (IEPR) every two years and an update every other year. The 2013 IEPR was adopted by the CEC on January 15, 2014 and reflects corrections that were approved on February 18, 2014 (CEC, 2013b). This report focuses on meeting environmental goals to address climate change (reducing greenhouse gas emissions) while meeting the state's growing energy needs related to economic and population growth.

LOCAL

Pleasanton General Plan. The role of each community's General Plan is to act as a constitution for development, the foundation upon which all land use decisions are to be based. Land use decisions not only encompass zoning, but also circulation, design, open space, and other factors. The General Plan is a policy document to assist and guide local decision makers.

The *Pleasanton General Plan 2005 - 2025* contains policies that pertain to energy resources and sustainability in its Energy Element. The following goals, policies, and programs would pertain to the proposed project and project consistency is discussed below:

General Plan Policies	Project Analysis
Energy Element *Program 6.3: Require green building practices to be used in all projects, including those not covered by the mandatory Green Building Ordinance, if feasible.* *Program 7.5: For new construction, require roofs that are strong enough and have roof truss spacing to hold photovoltaic panels, where feasible and cost effective.* *Program: 7.6: Require solar water heating and/or photovoltaic-ready roofs in new construction, i.e., roofs with wiring installed for a roof-mounted photovoltaic system, where feasible.* *Program 9.2: Continue to require new development to pay its fair share to underground distribution facilities fronting the development and total costs within the development.* *Program 14.1: Underground local serving electrical transmission and distribution lines in residential and commercial areas where feasible.*	As discussed under Pleasanton Green Building Ordinance, below, the proposed project's single-family residences would be subject to the City's Green Building Ordinance; thus, the project would comply with Program 6.3. The City requires local and regional transmission and distribution lines to be placed underground whenever feasible; the project would comply with Program 14.1

Pleasanton Green Building Ordinance. In 2002 the City Council adopted a green building ordinance (codified as Chapter 17.50 Green Building of the Municipal Code) that requires new civic and commercial projects over 20,000 square feet in size to incorporate green building measures from the US Green Building Council's LEED (Leadership in Energy and Environmental Design) Rating System. In 2006, the City Council adopted amendments to Planning Code Section 17.50.040 to require that most new residential projects, including all single-family residential, incorporate green building measures (per Pleasanton General Plan Energy Element p. 10-6).

Pleasanton Climate Action Plan. In 2013, the City adopted a Climate Action Plan. The City's Climate Action Plan identifies strategies, goals, and actions for reducing municipal and community-wide greenhouse gas (GHG) emissions, and is structured to ensure that the City does its part to meet the mandates of California's Global Warming Solutions Act of 2006 (AB 32). The measures presented in the Climate Action Plan are consistent with the goals and strategies in the General Plan, which acknowledges Pleasanton's responsibility in reducing its community-wide carbon footprint, and includes policies for reducing energy usage and carbon-dioxide emissions associated with the built environment and the everyday activities of its residents and businesses. This includes reducing automobile trips, energy use, traffic noise, and air pollution by integrating higher density, well-designed, in-fill mixed-use development with transit.

4.14.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based upon the criteria derived from Appendix F of the *CEQA Guidelines* and Public Resources Code Section 21100(b)(3), a project will have a significant impact on energy if the proposed project would:

- Encourage activities that consume energy in a wasteful, inefficient, or unnecessary manner.

CONSTRUCTION IMPACTS

Impact 4.14-1: Demolition of existing buildings and construction of the new residential uses would not encourage activities that use fuel, water, or energy in a wasteful, inefficient, or unnecessary manner. (Less than Significant with Mitigation)

The demolition of existing facilities and construction of the new residences as proposed by the project would require the use of fuels (primarily gas, diesel, and motor oil) for a variety of construction activities, including excavation, grading, demolition, and vehicle travel. During these activities, fuel use for construction worker commute trips would be minor compared to the fuel use by construction equipment. Although the fuels would only be used during construction of project facilities, excessive idling and other inefficient site operations could result in the wasteful use of fuels. Therefore, impacts related to the wasteful use of fuels during construction would be potentially significant for the proposed redevelopment of the project site. However, required implementation of certain exhaust control measures, such as limiting idling time and performing low-emissions tune-ups (see Section 4.8, Air Quality, Mitigation Measure 4.8-1), would ensure that fuels are not used in a wasteful manner and would therefore reduce this impact to less than significant.

Construction activities would also require the use of energy (e.g. electricity) and water for various purposes such as the operation of construction equipment and tools, and for dust suppression and equipment cleaning. The potentially excessive use of water would have indirect implications for energy use through the pumping requirements and associated energy needs to supply the water demand for project construction. The potential impacts of project development on fuel, water, and energy use would be reduced by implementation of the greenhouse gas reduction measures outlined in the City's Climate Action Plan (see Pleasanton Climate Action Plan, above). These measures include energy conservation measures, and incorporate the City's Construction and Demolition Debris Ordinance, adopted in 2009.

Mitigation Measure 4.14-1: *See Mitigation Measure 4.8-1 in Section 4.8, Air Quality.*

Level of Significance After Mitigation: Less than significant with implementation of idling limits specified in this measure because such limits would ensure that fuels are not used in a wasteful manner.

OPERATIONAL IMPACTS

Impact 4.14-2: Operation of residences would not encourage activities that use fuel, water, or energy in a wasteful, inefficient, or unnecessary manner. (Less Than Significant with Mitigation)

Implementation of the proposed project would result in the replacement of existing the ranch house and five outbuildings on the site with 50 new residences. According to the *Pleasanton General Plan 2005 - 2025*, there were approximately 25,961 housing units in Pleasanton in 2010, and there would be a total of 29,000 housing units by 2025 if all residential land is built out. The proposed project would comprise approximately 1.5% of the City's total planned addition of housing units by 2025. The project's increase in housing would result in a long-term increase in energy demand, associated primarily with the operation of lighting and space cooling/heating in the added building space.

Using the residential energy consumption information provided by the General Plan's Energy Element, the proposed project's 50 residences would be expected to use 27,042 Kwh and 2,250 Therms per month upon completion of all residences. However, the new residences will be built using modern building materials and construction practices. The new buildings will use modern appliances and equipment. The proposed residences would be located on the lower elevations of the site, and substantial water pumping would not be required. The proposed project would comply with the 2010 California Energy Code, CCR Title 24, Part 6. The State's Energy Code stipulates the requirements for appliance efficiency, space-conditioning, water-heating, heating and cooking equipment, lighting, windows and doors, insulation and roofing materials. The project also would comply with the City's Green Building Code, which provides for energy and water conservation. Compliance with the State's Energy Code, and the City's Green Building Code and Climate Action Plan would ensure that energy would not be consumed in a wasteful, inefficient, or unnecessary manner.

The residences would also require the indoor use of water for washing and other sanitary needs, food preparation, and other indoor activities. However, the residences would need to comply with the water efficiency provisions of the 2013 California Green Building Code. Accordingly, the project would be required to incorporate plumbing fixtures and fixture fittings to reduce the amount of potable water used by 20% relative to the requirements of the California Building Code.

With implementation of the 2010 California Green Building Code and Pleasanton Green Building Code, the project would not use large amounts of water or use water in a wasteful manner, therefore impacts related to water use would be less than significant.

The potential impacts of project operation on fuel, water, and energy use also would be reduced by implementation of the greenhouse gas reduction measures, which incorporate energy and water conservation, outlined in the City's Climate Action Plan (see Pleasanton Climate Action Plan, above). In addition, the proposed project would develop 50 new residences within approximately six miles of two Pleasanton BART stations, providing future residents with local access to regional transit facilties, while the Livermore Amador Valley Transit Authority provides local transit services (*Wheels*) for Pleasanton,

Dublin, and Livermore. The availability of these transit facilities to project residents would provide opportunities for reduced fuel consumption in the transportation needs of the project residents.

For these reasons, operation of the project would not encourage activities that use fuel, water, or energy in a wasteful, inefficient, or unnecessary manner.

Mitigation Measure 4.14-2: *Prior to issuance of any Grading or Demolition Permit, the City Engineer and the Chief Building Official shall confirm that the building plans and specifications incorporate the following features:*

a. Roofs that are strong enough and have roof truss spacing to hold photovoltaic panels, where feasible and cost effective, in compliance with Program 7.5 of the Energy Element of Pleasanton General Plan 2005 - 2025.

b. Solar water heating and/or photovoltaic-ready roofs in new construction, i.e., roofs with wiring installed for a roof-mounted photovoltaic system, where feasible, in compliance with Program 7.5 of the Energy Element of Pleasanton General Plan 2005 - 2025.

Level of Significance After Mitigation: Less than significant with Compliance with the State's Energy Code and Green Building Code, the City's Green Building Code and Climate Action Plan, and implementation of Mitigation Measure 4.14-2, because these regulations and mitigation measures would ensure that fuel, water, and energy are not used in a wasteful, inefficient, or unnecessary manner.

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CHAPTER 5 ALTERNATIVES

5.1 ALTERNATIVES OVERVIEW

CEQA Section 15126.6(a) requires that an EIR describe "a range of reasonable alternatives to the project, or to the location of any project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no iron-clad rule governing the nature or scope of the alternatives to be discussed, other than the rule of reason."

Section 15126.6(b) states, "[b]ecause an EIR must identify ways to mitigate or avoid the significant effect that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project even if these alternatives would impede, to some degree, the attainment of the project objectives, or would be more costly."

Section 15126.6(c) describes the selection process for a range of reasonable alternatives as, "[t]he range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Additional information, explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives; (ii) infeasibility; or, (iii) inability to avoid significant environmental impacts."

Section 15126.6(e) requires the analysis of a No Project Alternative. The analysis must discuss the existing condition, as well as what would be reasonably expected to occur in the foreseeable future if the project is not approved. The No Project Alternative is the circumstance under which the project does not proceed and wherein the existing environmental setting is maintained. The analysis also must discuss the environmental effects resulting from what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans, site zoning, and consistency with available infrastructure and community services. If the Environmentally Superior Alternative is the No Project Alternative, the EIR shall also identify an Environmentally Superior Alternative among the other alternatives [CEQA Section 15126.6(e)(2)].

In response to the NOP and a public hearing before the Planning Commission[1], the City received comments that expressed concern about potential traffic, aesthetic, biological, and drainage impacts associated with the proposed project. The majority of the public comments concerning the scope of the EIR's analyses focused on traffic and transportation issues that affect the various neighborhoods surrounding the Lund Ranch site. Considering these comments and the scoping process performed throught the preparation of an Initial Study, it was determined that the project would have potentially significant effects for eight resource issues. These resources are described and summarized as follows.

5.1.1 SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS

The EIR identifies the following potentially significant impacts, none of which is significant and unavoidable:

- **Biological Resources:** Project development would result in the loss of oak woodland/savanna habitat through the removal of oak trees for project access and residential development. The project would also result in the loss of habitat for special-status species (e.g. California tiger salamanders) and indirect disturbances to nesting special-status and other migratory birds as well as roosting special-status bat species. Project construction would also require the filling of seasonal drainage channels and wetlands.
- **Geology, Soils, and Seismicity:** As is true for the entire region, the project would likely be subject to one or more severe earthquakes and associated seismic hazards during the life of the project. Potential erosion, slope instability, expansive and compressible soils impacts could also occur with development of the proposed project.
- **Hydrology and Water Quality:** The proposed project would incrementally increase surface runoff from additional impervious surfaces and provide and additional source of polluted runoff, but would not exceed the capacity of the storm drain system.
- **Traffic and Circulation:** The project would contribute to cumulative traffic impacts to the Sunol Boulevard/I-680 Northbound Ramps and Sunol Boulevard/I-680 Southbound Ramps intersections, both of which would operate at deficient service levels (i.e., LOS E or F). The proposed project would add more than 10 vehicles through the Sunol Boulevard/I-680 Northbound Ramps and Sunol Boulevard/I-680 Southbound Ramps intersections, which would be a potentially significant impact because both intersections are projected to operate at deficient service levels (i.e., LOS E or F) under Near-Term Conditions. While traffic volumes on local streets would not exceed significance thresholds, neighborhood concerns regarding traffic safety would increase with the addition of project traffic to neighborhood streets. The proposed access plan for the proposed project would permit adequate access for emergency vehicles to the project site and would be a less than significant impact of the project.

[1] Conducted on March 14, 2012

- **Noise:** Project construction would result in potentially significant short-term noise increases due to operation of heavy equipment. Construction-related project traffic would also increase noise levels on local streets. Operation of proposed residences would result in noise increases from residential activities on-site as well as project-related traffic increases on local residential streets.
- **Air Quality:** Project construction would generate short-term emissions of criteria pollutants (including suspended and inhalable particulate matter), which could impede the attainment of ozone and particulate standards in the Bay Area.
- **Hazards and Hazardous Materials:** The proposed project would result in increased generation of household hazardous wastes that could cause human health and environmental effects if improperly disposed. Excavation and building demolition for the proposed project could potentially encounter previously identified soil contamination that could result in a release of hazardous materials to the environment during construction, potentially exposing workers and the public to hazardous materials. Project construction activities would result in a temporary increase in fire risks at the site; occupation of project homes and maintenance of the project's open space areas would increase fire risks at the project site. The proposed access plan for the proposed project would permit adequate access for emergency vehicles to the project site and would be a less than significant impact of the project.
- **Cultural Resources:** Demolition and construction activities on the project site could disturb unknown subsurface cultural archaeological resources, including the disturbance of human remains, and unique paleontological resources.

All of the above impacts could be reduced to a less-than-significant level with implementation of mitigation measures included in this EIR. Mitigation measures recommended in this EIR would involve minor design changes, changes in construction practices, and/or payment of fees.

The alternatives presented below include the CEQA-required No Project Alternative, alternatives considered but rejected from further analysis, as well as seven modified design alternatives (scenarios) that address environmental impacts related to traffic and associated impacts: Modified Access Alternatives. As required by CEQA, the Environmentally Superior Alternative is also identified below.

5.1.2 PROJECT OBJECTIVES

The principal project applicant objectives are presented in Chapter 3, Project Description, and reiterated here for reference:

APPLICANT PROJECT OBJECTIVES

Section 15124(b) of the *CEQA Guidelines* requires that an EIR include "a statement of the objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project."

The objectives of the project sponsor, GHC Lund Ranch LLC, for the Lund Ranch II project would be to dedicate approximately172.1 acres of the project site to the City for permanent open space and recreational trails, and to construct 48 single-family residences on approximately 16.1 acres and two estate lots on 2.8 acres. The proposed project would create a residential subdivision that is consistent with the uses and scale of development in the surrounding neighborhood. In order to achieve this, the project proposes residential uses consistent with the site's General Plan designation for "Rural Density" and "Low Density" residential use, and the site's zoning designation of "PUD-LDR/OS," Planned Unit Development – Low Density Residential) District (including zoning requirements for lot size, set backs and street dimension standards). Section 3.3, Project Description, of this report provides a detailed discussion of the proposed residential development.

In addition, an important objective of the proposed project is to provide residential uses that that respect the nature of the site's terrain and are consistent with the community's desire to preserve and protect the aesthetic amenities of its ridgelines and hillside areas. Besides the dedication of more than 172 acres of upland area for pubic open space, the project has been designed in compliance with the provisions of the City's Measure PP, with the objective of confining proposed residential use to the lower elevations of the site that immediately adjoin existing residential neighborhoods.

Lastly, the project proposes a level of residential use that does not substantially increase traffic in the surrounding residential neighborhoods. The project attempts to achieve this objective by limiting residential development density to a level below that permitted by the General Plan and Zoning Ordinance.

As discussed above, the alternatives under consideration were selected in order to comply the CEQA Guidelines requirement that alternatives "shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects." Consequently, the identified alternatives are not required to meet the project objectives completely, but should lessen one or more of the project's significant impacts while achieving most of the basic project objectives.

5.2 ANALYSIS OF ALTERNATIVES

5.2.1 ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER ANALYSIS

ALTERNATE LOCATION ALTERNATIVE

An alternate location to the proposed project site was also evaluated to determine if any of the potential project impacts could be reduced. This alternative was rejected from further analysis because the only other available properties of an appropriate size within Pleasanton would be undeveloped land to the south and east of the project site (Foley and Spotorno properties). An alternate location in this area would unlikely be able to meet the majority of the project objectives since these lands are: 1) less accessible than the project site; 2) subject to the same hillside slope and ridgeline protection requirements as the proposed

project; 3) outside of the Urban Growth Boundary; and 4) expected to have potential environmental impacts that would be similar to or greater than those resulting from the proposed project. Therefore, this project alternative was rejected from further analysis.

5.2.2 NO PROJECT ALTERNATIVE

Under the No Project Alternative, the proposed project would not be developed and the environmental impacts identified in this report (summarized above) would be avoided. The existing agricultural uses would continue in operation in the same current manner. However, since the project site is located contiguous to existing urbanized areas and roads terminate at the project site, it is likely that future proposals will be made for development of the 195-acre project site. As discussed in Chapter 4.1, Land Use, Plans, and Policies, the General Plan land use designations for the project would facilitate future development proposals consistent with the General Plan and zoning designations for the Lund Ranch propety. Therefore, it is anticipated that development proposals will be made in the future for the project site, and these proposals would likely reflect uses and densities allowed by the then-current General Plan. It should be noted that any future development proposals for the project site would be subject to the provisions of the City's Measures PP and QQ.

The No Project Alternative would preclude the addition of 550 weekday daily and 45 to 56 peak hour vehicle trips generated by the residential uses on the project site. In addition, potential noise and air quality impacts associated with the new traffic volumes as well as temporary construction-related traffic increases would be avoided. The project's potential impacts from grading and excavation would be precluded, as would the identified geotechnical effects. The oak woodland/savanna vegetation would continue to support wildlife habitat and seasonal wetlands would remain intact. Impervious surfaces on the project site would remain at present levels of coverage and no new storm runoff would occur from planned residences, roadways, and associated hardscape.

This alternative would also prevent other potential increases in construction-related noise and air quality impacts from operation of construction equipment on-site, as well as operational increases in noise, air pollutants, and GHG emissions from increases in residential activities and energy demands. Depending upon the condition of the project site's structures, demolition of site buildings would not be necessary and the potential for release of hazardous materials would not occur. In addition, the continued limitation of human activity on the site would constrain the site's exposure to sources for potential wildfire hazards. Without extensive excavation and grading, the potential for uncovering buried cultural resources would also be negligible.

This alternative would not physically alter existing conditions at the site and, therefore, the No Project Alternative is the Environmentally Superior Alternative. However, the No Project Alternative would meet none of the project applicant's objectives. Furthermore, the evaluation of the No Project Alternative would need to consider the future use of the project site absent the project development as currently proposed. CEQA Guidelines Section 15126.6 (e)(3)(B) states:

> "If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the "no project" alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed. In certain instances, the no project alternative means "no build" wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment."

Given the history of the project site, it is reasonable to foresee that proceeding with the No Project Alternative for the project site, in conjunction with a continued diminishing supply of undeveloped land within the City of Pleasanton, would result in future proposal(s) for residential development on the project site. Assuming that the current General Plan Land Use Designation and zoning for the property remains in effect, future low-density, single-family residential development could be anticipated at the Lund Ranch property. Future potential development proposals would be limited to the current site areas proposed for residential use. Depending upon acceptable access plans for the site, future residential development proposals for the site would most likely attempt to maximize the number of single-family lots to be constructed within the developable portion of the site. Consequently, future residential development proposals for the project site would require planning and construction activities similar to those occurring for the proposed project. The potential environmental effects of any future residential development proposed for the project site would be similar in nature to those of the proposed project; however, the extent of these environmental effects may be less than those identified for the proposed project, contingent upon the specific residential development design proposed at a future time.

5.2.3 MODIFIED ACCESS ALTERNATIVE

The Modified Access Alternative was formulated to address the extensive neighborhood concerns and comments regarding perceived traffic issues for residents of the Sycamore Heights, Bridle Creek, Ventana Hills, Bonde Ranch, and Junipero Street area neigborhoods. In addition, this Alternative examines potential access configurations that may be required as a result of past agreements between residents and developers of neighborhoods adjoining the Lund Ranch project site.

As discussed above, the purpose of developing alternatives to the proposed project is to determine whether one or more alternatives would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. Upon consideration of the expressed concerns of the community, it was determined that a Modified Access Alternative should examine a range of potential access configurations which could achieve the CEQA-mandated avoidance and/or reduction of potentially

significant impacts that have been identified for the proposed project. Alternatives under consideration should also meet most of the project objectives, although some objectives may not be entirely met.

The Modified Access Alternative consists of eight scenarios that include the proposed project's extension of Lund Ranch Road onto the subject property. Since Chapter 4 of this EIR provides a detailed evaluation of the impacts associated with the first scenario, this Modified Access Alternative examines the remaining seven alternative access configurations for the project site (Scenarios 2 through 8). The seven alternative access scenarios are shown in **Figure 5-1** and described as follows:

- Scenario 2 - Lund Ranch Road + Middleton Place (no connection to Livingston Way);
- Scenario 3 - Lund Ranch Road + Sunset Creek Lane;
- Scenario 4 - Lund Ranch Road + Middleton Place (no connection to Livingston Way) + Sunset Creek Lane;
- Scenario 5 - Lund Ranch Road + Middleton Place (no connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way;
- Scenario 6 - Middleton Place (no connection to Livingston Way) + Sunset Creek Lane (no connection to Lund Ranch Road);
- Scenario 7 - Middleton Place (no connection to Livingston Way) + Sycamore Creek Way (no connection to Lund Ranch Road); and
- Scenario 8 - Middleton Place (no connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way (no connection to Lund Ranch Road).

As indicated in Figure 5-1, Scenarios 2 through 5 would involve access to the Lund Ranch project site from Lund Ranch Road as well as one or more accesses from Middleton Place, Sunset Creek Lane, and/or Sycamore Creek Way, all of which terminate at or near the property's boundaries. Scenarios 6 through 8 would entail connections from Middleton Place to either or both Sunset Creek Lane and Sycamore Creek Way.

CONSISTENCY WITH PROJECT OBJECTIVES

To the extent that the alternative access configurations, Scenarios 2 through 8, provide access to the Lund Ranch property as well as connections to surrounding neighborhoods, the Modified Access Alternative includes the assumption that residential lots would be developed along the principal access route and potential cul-de-sacs stemming from main access alignment. As a result, Scenarios 2 through 5 would meet most, if not all, of the project objectives. However, Scenarios 6 through 8 would not meet project objective 4, connection to Lund Ranch Road.

Objective 1 includes the development of 48 single-family residences and two estate lots on approximately 19 acres of the 195-acre Lund Ranch property. While the scenarios presented as part of this alternative do not specify the number of lots that would be designated for the alternate access alignments, these

SCENARIO 1:
Proposed Project

SCENARIO 2:
Lund Ranch Road
and Middleton Place

SCENARIO 3:
Lund Ranch Road
and Sunset Creek Lane

SCENARIO 4:
Lund Ranch Road, Middleton Place
and Sunset Creek Lane

SCENARIO 5:
Lund Ranch Road, Middleton Place,
Sunset Creek Lane and Sycamore Creek Way

SCENARIO 6:
Bonde Agreement

SCENARIO 7:
Middleton Place and
Sycamore Creek Way

SCENARIO 8:
Middleton Place, Sunset Creek Lane
and Sycamore Creek Way

Source: Fehr & Peers (February 2013)

scenarios include the assumption that the alternative access alignments would accommodate a maximum of 50 single-family residential lots. With consideration of the additional rights-of-way that would be required for the alternative access alignments, however, it is possible that the actual number of lots that could be developed on the project site would be less than that proposed by the project. As a result, the analysis of this alternative's impacts related to raffic and circulation is considered to conservative and may overstate the extent of traffic and associated noise and air quality impacts on streets evaluated.

IMPACT COMPARISON – IMPACTS COMMON TO ALL ALTERNATIVE ACCESS SCENARIOS

The environmental effects of this alternative's various access scenarios would be similar to those of the proposed project with respect to the residential development served by alternate access routes. For some topical issues, all of the alternate access scenarios would have similar effects and these are collectively compared to the project's impacts. For other resource areas, the individual access scenarios may differ from each other in the impacts each one has and these are addressed on an individual basis. The following discussion describes impacts that all of the alternative access scenarios have in common and compares these impacts to the impacts identified for the project (i.e. project-related significant impacts under these topics would continue to be significant under these alternative scenarios). Mitigation measures applicable to the alternative access scenarios are indicated below in Table 5-3.

- **Land Use, Plans, and Policies:** As discussed above, the Alternative Access Scenarios formulated for consideration include the assumption that the proposed alternatives would develop 50 residential lots and associated access roads and driveways. In addition, all of the Alternative Access Scenarios provide for the dedication of the 172.1 acres of the project site to the City for open space and recreational trail use. The alternatives' proposed residential lots and housing would occur on the lower elevations of the project site similar to the proposed project, consistent with the provisions of Measures PP and QQ..

  The development of these alternatives with the Access Scenarios 2 through 8 would have land use impacts that are similar to those of the proposed project. These include the development of residential uses at densities that are consistent with the average densities assumed for buildout of the Lund Ranch property under the General Plan land use designations. In addition, the project would not physically divide an established community.

  The determination for alternatives' consistency with other land use plans, i.e. North Sycamore Specific Plan (1992), varies with the specific Alternative Access Scenario under consideration. Although the Lund Ranch property was not included as a part of North Sycamore Specific Plan (NSSP) area nor the Happy Valley Specific Plan (HVSP, 1998) area, these two specific plans include provisions for roadway connections to the adjoining Lund Ranch property or its immediate vicinity. However, the NSSP acknowledges that "steep slopes may be a constraint in the northeastern, north central and southeastern portions of the project site" and that "other areas may require special treatments so as to minimize extensive grading." The development plans for the Lund Ranch II project site address this recognized constraint of steep slopes by restricting access to the proposed project to the relatively gentle slopes of the project site's lower elevations along Lund Ranch Road.

The HVSP provides for orderly planned growth in the southeastern part of Pleasanton, with provisions for the development of a north-south Bypass Road that would connect to a collector road planned for the North Sycamore Specific Plan area. The Bypass Road would connect with an east-west collector road in the NSSP area adjoining the City's Water Tank on Sycamore Creek Way; it should be noted that the east-west collector identified in the HVSP is designated as a north-south collector in the NSSP.

The NSSP includes plans for both a north-south collector and an east-west local road as part of the internal circulation plan. The NSSP's north-south collector would connect to the HVSP Bypass Road. In addition, the east-west local road would extend to the NSSP boundary with the Lund Ranch property to serve future development on this project site. The NSSP-proposed east-west road approximately connects with the Lund Ranch property in the vicinity of the Sunset Creek Lane terminus. The residential project proposed for Lund Ranch does not include access to the Sycamore Heights neighborhood of the NSSP area. Additionally, the HVSP does not specify a road connection to the Lund Ranch property.

- **Aesthetics:** As is the case for the project, all of the Alternative Access Scenarios would include residential project development occurring on the lower slopes of the Lund Ranch property extending over the portions of the site that are currently proposed for development. This development criterion for the proposed Alternative Access Scenarios 2 through 8 were selected to ensure that the residential uses conform with the provisions of Measure PP that restricts future development in the City's hillsides areas and in proximity to ridgelines. Due to the project site's topography and the constraints of this Measure, the relatively gentle lower slopes of the project site comprise the only part of the site that could accommodate residential development. As a result, the principal difference between the proposed project and all of the Alternative Access Scenarios is the alignments of the potential roadway extensions from Lund Ranch Road, Middleton Place, Sunset Creek Lane, and Sycamore Creek Way. For the sections of these road extensions north of the site's creek, the extension of a roadway connection to Middleton Place (Scenarios 2 and 4 through 8) instead of or in addition to Lund Ranch Road, the project applicant has indicated that the alternative alignment(s) could be accommodated within the proposed development area through a re-assignment of residential lots. Similar to the project's impacts, the confinement of project residential and infrastructure development to the lower elevations of the site would result in less than significant aesthetic effects on public views from the viewpoints indicated in Chapter 4.2.

  The extension of roadway connections from Lund Ranch Road and/or Middleton Place southward across the site's creek and to Sunset Creek Lane and/or Sycamore Creek Way would entail the development of new road alignments that would cross steep hillsides. In addition, the development of these roads would be subject to the City's design review process and be required to include provisions for the revegetation and landscaping of graded slopes to minimize the visual effects of roadway grading. The development of the these road extensions south of the site's creek would not result in significant aesthetic effects from the implementation of Scenarios 3 through 8. Consequently, the overall visual impacts of all of the Alternative Access Scenarios would be similar to those of the proposed project and are not discussed further under the individual Alternative Access Scenarios.

For illustrative purposes, potential views of the proposed residential development are presented in **Figures 5-2A and 5-2B**. While this representative view of the project site is not currently available to the public, the figures provide a photosimulation of the type of view that would occur from an extension of Sunset Creek Lane and/or Sycamore Creek Way on the project site. This view would be available to all Alternative Access Scenarios requiring a crossing of the site's creek, i.e. Scenarios 3 through 8. This view would not be available with the implementation of the proposed project or Scenario 2.

- **Biological Resources:** All of the alternative access scenarios would include residential project development occurring on the lower slopes of the Lund Ranch property, in the part of the site that is currently proposed for development. As with the proposed project, the development of this area would result in the loss of oak woodland/savanna habitat through the removal of oak trees for project access and residential development. The development of residential lots with these access alternatives would also result in the loss of habitat for special-status species (e.g. California tiger salamanders) and indirect disturbances to nesting special-status and other migratory birds as well as roosting special-status bat species. Project construction could also require the filling of seasonal drainage channels and wetlands.

  Scenario 2 involves the addition of a roadway connection from Middleton Place to the project's extension of Lund Ranch Road. This access configuration would provide full site access north of the site's creek and would preclude a creek crossing. With the exception of Scenario 2, all of the remaining access scenarios would require a creek crossing on the project site. Consequently, Scenarios 3 through 8 could have a greater impact on the riparian portion of the project site, depending on the method(s) used to cross the site's creek.

- **Geology, Soils, and Seismicity:** As is the case for the project, all of the alternative access roads and a residential development served by these roads would likely be subject to one or more severe earthquakes and associated seismic hazards during the life of the project. Potential erosion, slope instability, expansive and compressible soils impacts could also occur with development of the alternate access roads. The alignments evaluated in Scenarios 3 through 8 would involve grading on slopes that exceed 25%, which would be subject to a greater potential for erosion than would occur for only the extension of Lund Ranch Road. Scenario 2 entails an extension from Middleton Place to Lund Ranch Road and would not cross slopes exceeding 25%.

- **Hydrology and Water Quality:** The alternative access scenarios would introduce more impervious roadway surfaces than the proposed project and incrementally increase surface runoff. However, the alternate alignments would displace residential lots that would otherwise contribute impervious surfaces in the form of roofs, walkways, patios, and residential-related hardscape. As with the

View of Project Site from Sunset Creek Lane

Figure 5-2a

Source: William Kanemoto & Associates (February 2013)

View of Proposed Project from Sunset Creek Lane

Figure 5-2b

Source: William Kanemoto & Associates (February 2013)

proposed project, the additional storm runoff would not be expected to exceed the capacity of the storm drain system.

- **Cultural Resources:** Demolition and construction activities on the project site could disturb unknown subsurface cultural archaeological resources, including the disturbance of human remains, and unique paleontological resources.
- **Hazards and Hazardous Materials:** Under the alternate access scenarios, the project site would be developed with single-family residences and result in increased generation of household hazardous wastes that could cause human health and environmental effects if improperly disposed. However, the alternate access alignments would result in a reduced number of residential units and corresponding households that could generate hazardous wastes. Excavation and building demolition for the proposed residential uses could potentially encounter previously identified soil contamination that could result in a release of hazardous materials to the environment during construction, potentially exposing workers and the public to hazardous materials.

  Project construction activities would result in a temporary increase in fire risks at the site; occupation of project homes and maintenance of the project's open space areas would increase fire risks at the project site. All of the Alternate Access Scenarios provide a second access point for the Lund Ranch property. This additional access would provide an alternative route for emergency vehicles to reach the project site, and for future residents to evacuate the project area in the event of an emergency.

IMPACT COMPARISON – IMPACTS DIFFERING WITH EACH ALTERNATIVE ACCESS SCENARIO

In addition to the above environmental effects that would be common to all of the access scenarios under this alternative, individual access scenarios would have impacts that differ from each other and the proposed project. Specifically, the alternate access scenarios would have separate and different effects on traffic, noise, and air quality characteristics of the project area. **Table 5-1** describes existing traffic conditions for 17 street segments in the project vicinity that would be expected to receive traffic flows from the Lund Ranch property with development of the project site. The table also presents the results of traffic modeling that estimates the distribution of traffic volumes with access as proposed by the project and the alternate access scenarios.

It should be noted that both the proposed project and this Modified Access Alternative would contribute to cumulative traffic impacts to the Sunol Boulevard/I-680 Northbound Ramps and Sunol Boulevard/I-680 Southbound Ramps intersections, which would both operate at deficient service levels (i.e., LOS E or F). The proposed project would add more than 10 vehicles through the Sunol Boulevard/I-680 Northbound Ramps and Sunol Boulevard/I-680 Southbound Ramps intersections, which would be a potentially significant impact because both intersections are projected to operate at deficient service levels (i.e., LOS E or F) under Near-Term Conditions. While traffic volumes on local streets would not exceed significance thresholds, neighborhood concerns regarding traffic safety would increase with the addition of project traffic to neighborhood streets.

The distribution of additional traffic in neighborhoods surrounding the project would also have implications for traffic-related noise levels experienced by residents along affected streets. In order to

assess the effects of additional traffic volumes on residential neighborhood noise levels, potential changes in neighborhood noise levels were determined for changes in traffic volumes from the proposed project and each access scenario. The noise level changes are presented in **Table 5-2**.

Alternative Access Scenario 2 Impacts

Impacts related to the above-described land use/planning, aesthetics, biological resources, geology/soils/seismicity, hydrology/water quality, cultural resources, public services, and hazards/hazardous materials are similar for all the alternative access scenarios. Impacts resulting from this alternative access scenario that would differ from the other alternative access scenarios are described as follows:

- **Land Use, Plans, and Policies:** As discussed in the *Impacts Common to All Alternative Access Scenarios* section, the Alternative Access Scenarios formulated for consideration include provisions that the proposed alternatives would develop residential uses similar in nature and scale as the proposed project in order to comply with the General Plan's land use designations and zoning ordinance requirements. As a result, the development of these alternatives with the Access Scenarios 2 through 8 would have land use impacts that are similar to those of the proposed project, including the development of residential uses at densities that are consistent with the average densities assumed for buildout of the Lund Ranch property under the General Plan land use designations. In addition, the project would not physically divide an established community.

  Scenario 2 involves the addition of a roadway connection from Middleton Place to the project's extension of Lund Ranch Road. This access configuration would provide full site access north of the site's creek and would preclude a creek crossing. However, the circulation plan for the NSSP includes an east-west local road would extend to the NSSP boundary with the Lund Ranch property to serve future development on the project site. The NSSP-proposed east-west road approximately connects with the Lund Ranch property in the vicinity of the Sunset Creek Lane terminus. Since the Alternative Access Scenario 2 does not include access to the Sycamore Heights neighborhood of the NSSP area, Scenario 2 would not support the circulation and access design envisioned in the NSSP.

  The Alternative Access Scenario 2 does not include access to the Sycamore Heights neighborhood of the NSSP area, Scenario 2 would not support the circulation and access design of the NSSP. However, it should be noted that the NSSP acknowledges that "steep slopes may be a constraint in the northeastern, north central and southeastern portions of the project site" and that "other areas may require special treatments so as to minimize extensive grading." The development plans for the Lund Ranch II project site address this recognized constraint of steep slopes by restricting access to the proposed project to the relatively gentle slopes of the project site's lower elevations along Lund Ranch Road.

- **Biological Resources:** All of the alternative access scenarios would include residential project development occurring on the lower slopes of the Lund Ranch property, in the part of the site that is currently proposed for development. As with the proposed project, the development of this area would result in the loss of oak woodland/savanna habitat through the removal of oak trees for project

TABLE 5-1

ROADWAY SEGMENT ANALYSIS RESULTS SUMMARY

				Daily Change in Trips[1]							
Roadway Segment	**Extents**	**Roadway Type**	**Existing Average Weekday Traffic**	**Scenario 1 (Project)[2]**	**Scenario 2**	**Scenario 3**	**Scenario 4**	**Scenario 5**	**Scenario 6**	**Scenario 7**	**Scenario 8**
Lund Ranch Road	Independence to Project Site	Local	210	550	690	220	140	140	0	0	0
Independence Drive	Hopkins Way to End	Local	340	550	690	220	140	140	0	0	0
Independence Drive	North of Hopkins	Residential Collector	630	490	490	-20	-100	-100	-130	-130	-130
Independence Drive	South of Bernal	Residential Collector	1,760	180	180	70	50	50	-40	-40	-40
Livingston / Middleton	East of Hopkins	Local	140	0	-140	0	-140	-140	-140	-140	-140
Hopkins Way	East of Independence	Local	290	0	-140	0	-140	-140	-140	-140	-140
Hopkins Way	West of Independence	Local	200	60	60	20	20	20	-10	-10	-10
Junipero Street	East of Sunol	Residential Collector	2,880	260	260	110	60	60	-80	-80	-80
Junipero Street	Between Sonoma and San Antonio	Residential Collector	2,240	260	260	110	60	60	-80	-80	-80
Junipero Street	West of Mission	Residential Collector	1,500	260	260	110	60	60	-80	-80	-80
Mission Drive	East of Sonoma	Local	1,010	110	110	40	30	30	-20	-20	-20
Sunset Creek Lane	East of Hanifen	Local	100	0	0	0	80	-210	690	0	210
Hanifen Way	North of Sycamore Creek	Local	130	0	0	320	380	190	750	0	140
Dalton Creek Way	North of Sycamore Creek	Local	180	0	0	100	120	40	200	0	50

TABLE 5-1 (CONT'D)

ROADWAY SEGMENT ANALYSIS RESULTS SUMMARY

				Daily Change in Trips[1]							
Roadway Segment	**Extents**	**Roadway Type**	**Existing Average Weekday Traffic**	**Scenario 1 (Project)[2]**	**Scenario 2**	**Scenario 3**	**Scenario 4**	**Scenario 5**	**Scenario 6**	**Scenario 7**	**Scenario 8**
Summit Creek Lane	East of Sycamore Creek	Local	580	0	0	30	30	10	70	0	20
Sycamore Creek Way	Sycamore Rd to east of Sycamore Terrace	Residential Collector	1,900	0	0	330	410	410	690	690	690
Sycamore Road	East of Sunol	Residential Collector	3,440	0	0	330	410	410	690	690	690
Number of streets with traffic increases				9	9	13	14	13	6	2	6

NOTES: 1. Includes new traffic generated by the Project as well as existing traffic that could shift from roadway network changes.
2. Scenarios include:
1) Proposed Project access via Lund Ranch Road
2) Lund Ranch Road + Middleton Place (No connection to Livingston Way)
3) Lund Ranch Road + Sunset Creek Lane
4) Lund Ranch Road + Middleton Place (No connection to Livingston Way) + Sunset Creek Lane
5) Lund Ranch Road + Middleton Place (No connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way.
6) Middleton Place (No connection to Livingston Way) + Sunset Creek Lane (No connection to Lund Ranch Road.)
7) Middleton Place (No connection to Livingston Way) + Sycamore Creek Way (No connection to Lund Ranch Road.)
8) Middleton Place (No connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way (No connection to Lund Ranch Road.)

SOURCE: Fehr & Peers, 2012.

TABLE 5-2

NOISE LEVEL CHANGES UNDER ALTERNATIVE SCENARIOS

			Change in Noise Level[1]															
Roadway Segment	**Extents**	**Existing**	**Existing + Scenario 1 (Project)[2]**	**Change from Existing**	**Existing + Scenario 2**	**Change from Existing**	**Existing + Scenario 3**	**Change from Existing**	**Existing + Scenario 4**	**Change from Existing**	**Existing + Scenario 5**	**Change from Existing**	**Existing + Scenario 6**	**Change from Existing**	**Existing + Scenario 7**	**Change from Existing**	**Existing + Scenario 8**	**Change from Existing**
Lund Ranch Road	Independence to Project Site	47.2	52.8	**5.6**	53.5	**6.3**	50.3	3.1	49.4	2.2	49.4	2.2	47.2	0.0	47.2	0.0	47.2	0.0
Independence Drive	Hopkins Way to End	49.3	53.5	**4.2**	54.1	**4.8**	51.5	2.2	50.8	1.5	50.8	1.5	49.3	0.0	49.3	0.0	49.3	0.0
Independence Drive	North of Hopkins	52.0	54.5	2.5	54.5	2.5	51.9	-0.1	51.2	-0.8	51.2	-0.8	51.0	-1.0	51.0	-1.0	51.0	-1.0
Independence Drive	South of Bernal	56.5	56.9	0.4	56.9	0.4	56.6	0.2	56.6	0.1	56.6	0.1	56.4	-0.1	56.4	-0.1	56.4	-0.1
Livingston / Middleton	East of Hopkins	45.5	45.5	0.0	24.0	-21.5	45.5	0.0	24.0	-21.5	24.0	-21.5	24.0	-21.5	24.0	-21.5	24.0	-21.5
Hopkins Way	East of Independence	48.6	48.6	0.0	45.8	-2.9	48.6	0.0	45.8	-2.9	45.8	-2.9	45.8	-2.9	45.8	-2.9	45.8	-2.9
Hopkins Way	West of Independence	47.0	48.1	1.1	48.1	1.1	47.4	0.4	47.4	0.4	47.4	0.4	46.8	-0.2	46.8	-0.2	46.8	-0.2
Junipero Street	East of Sunol	58.6	59.0	0.4	59.0	0.4	58.8	0.2	58.7	0.1	58.7	0.1	58.5	-0.1	58.5	-0.1	58.5	-0.1
Junipero Street	Between Sonoma and San Antonio	57.5	58.0	0.5	58.0	0.5	57.7	0.2	57.6	0.1	57.6	0.1	57.3	-0.2	57.3	-0.2	57.3	-0.2
Junipero Street	West of Mission	55.8	56.5	0.7	56.5	0.7	56.1	0.3	55.9	0.2	55.9	0.2	55.5	-0.2	55.5	-0.2	55.5	-0.2

TABLE 5-2 (CONTINUED)

NOISE LEVEL CHANGES UNDER ALTERNATIVE SCENARIOS

			Change in Noise Level[1]															
Roadway Segment	**Extents**	**Existing**	**Existing + Scenario 1 (Project)[2]**	**Change from Existing**	**Existing + Scenario 2**	**Change from Existing**	**Existing + Scenario 3**	**Change from Existing**	**Existing + Scenario 4**	**Change from Existing**	**Existing + Scenario 5**	**Change from Existing**	**Existing + Scenario 6**	**Change from Existing**	**Existing + Scenario 7**	**Change from Existing**	**Existing + Scenario 8**	**Change from Existing**
Mission Drive	East of Sonoma	54.0	54.5	0.4	54.5	0.4	54.2	0.2	54.2	0.1	54.2	0.1	54.0	-0.1	54.0	-0.1	54.0	-0.1
Sunset Creek Lane	East of Hanifen	44.0	44.0	0.0	44.0	0.0	44.0	0.0	46.6	2.6	24.0	-20.0	53.0	**9.0**	44.0	0.0	48.9	**4.9**
Hanifen Way	North of Sycamore Creek	45.1	45.1	0.0	45.1	0.0	50.5	**5.4**	51.1	**5.9**	49.1	3.9	53.4	**8.3**	45.1	0.0	48.3	3.2
Dalton Creek Way	North of Sycamore Creek	46.6	46.6	0.0	46.6	0.0	48.5	1.9	48.8	2.2	47.4	0.9	49.8	3.2	46.6	0.0	47.6	1.1
Summit Creek Lane	East of Sycamore Creek	51.6	51.6	0.0	51.6	0.0	51.9	0.2	51.9	0.2	51.7	0.1	52.1	0.5	51.6	0.0	51.8	0.1
Sycamore Creek Way	Sycamore Rd to east of Sycamore Terrace	56.8	56.8	0.0	56.8	0.0	57.5	0.7	57.6	0.8	57.6	0.8	58.1	1.3	58.1	1.3	58.1	1.3
Sycamore Road	East of Sunol	59.4	59.4	0.0	59.4	0.0	59.8	0.4	59.9	0.5	59.9	0.5	60.2	0.8	60.2	0.8	60.2	0.8
Number of streets with increases of more than 4 dBA			2		2		1		1		0		2		0		1	

TABLE 5-2 (CONTINUED)

NOISE LEVEL CHANGES UNDER ALTERNATIVE SCENARIOS

NOTES: Noise increases of greater than 4 dB are **bolded** since they would exceed the 4 dBA significance threshold indicated by General Plan Noise Policy 1, Program 1.3.
1. Includes new traffic generated by the Project as well as existing traffic that could shift from roadway network changes.
2. Scenarios include:
   1) Proposed Project access via Lund Ranch Road
   2) Lund Ranch Road + Middleton Place (No connection to Livingston Way)
   3) Lund Ranch Road + Sunset Creek Lane
   4) Lund Ranch Road + Middleton Place (No connection to Livingston Way) + Sunset Creek Lane
   5) Lund Ranch Road + Middleton Place (No connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way.
   6) Middleton Place (No connection to Livingston Way) + Sunset Creek Lane (No connection to Lund Ranch Road)
   7) Middleton Place (No connection to Livingston Way) + Sycamore Creek Way (No connection to Lund Ranch Road)
   8) Middleton Place (No connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way (No connection to Lund Ranch Road)

SOURCE: Geier & Geier Consulting, Inc., 2013.

access and residential development. The development of residential lots with these access alternatives would also result in the loss of habitat for special-status species (e.g. California tiger salamanders) and indirect disturbances to nesting special-status and other migratory birds as well as roosting special-status bat species. Project construction would also require the filling of seasonal drainage channels and wetlands.

Scenario 2 involves the addition of a roadway connection from Middleton Place to the project's extension of Lund Ranch Road. This access configuration would provide full site access north of the site's creek and would preclude a creek crossing. With the exception of Scenario 2, all of the remaining access scenarios would require a creek crossing on the project site. Consequently, Scenarios 3 through 8 could have a greater impact on the riparian portion of the project site, depending on the method(s) used to cross the site's creek.

- **Geology, Soils, and Seismicity:** As is the case for the project, all of the alternative access roads and a residential development served by these roads would likely be subject to one or more severe earthquakes and associated seismic hazards during the life of the project. Potential erosion, slope instability, expansive and compressible soils impacts could also occur with development of the alternate access roads. The alignments evaluated in Scenarios 3 through 8 would involve grading on slopes that exceed 25%, which would be subject to a greater potential for erosion than would occur for only the extension of Lund Ranch Road. Scenario 2 entails an extension from Middleton Place to Lund Ranch Road and would not cross slopes exceeding 25%.
- **Traffic and Circulation:** Table 5-1 indicates that Scenario 2 (Lund Ranch Road – Middleton Place access) would result in traffic increases on nine neighborhood streets, similar to the proposed project. Livingston Way between Middleton Place and Braxton Place would be closed and traffic from the 15 homes on Middleton Place would be rerouted through a connection of Livingston Place to the project site. This alternate access scenario would also result in traffic volume decreases of 140 daily trips on two streets, Hopkins Way and Livingston/Middleton Place. Under the project's street configuration, the traffic volumes for these two street segments would remain unchanged, i.e. continue to carry 290 and 140 daily trips along with the remaining six street segments indicated for both the project and Scenario 2.
- **Noise:** Table 5-2 compares project-related traffic increases on local residential streets under this access scenario with the increases associated with the proposed project. Traffic volume changes associated with Scenario 2 would result in traffic noise increases that exceed General Plan thresholds as defined by General Plan Noise Policy 1, Program 1.3, on the same two street segments (Lund Ranch Road between the project site and Independence Drive and Independence Drive from Hopkins Way to the end of the street) that would be impacted by the proposed project. However, increased noise levels under this alternative would be higher than the project-related noise increases and would constitute a significant noise impact under this alternative. In order to reduce the potential noise impacts of this alternative, the project applicant would be required to implement mitigation on these two roadways similar to Mitigation Measure 4.7-4 for the proposed project, reducing the project's estimated increase in traffic noise to less than significant levels.

- **Air Quality:** Access changes under Scenario 2 would not substantially alter air pollutant emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths, air pollutant emissions from mobile sources would be similar to the proposed project.
- **Greenhouse Gas Emissions:** Access changes under Scenario 2 would not substantially alter greenhouse gas emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths, GHG emissions from mobile sources would be similar to the proposed project.

Alternative Access Scenario 3 Impacts

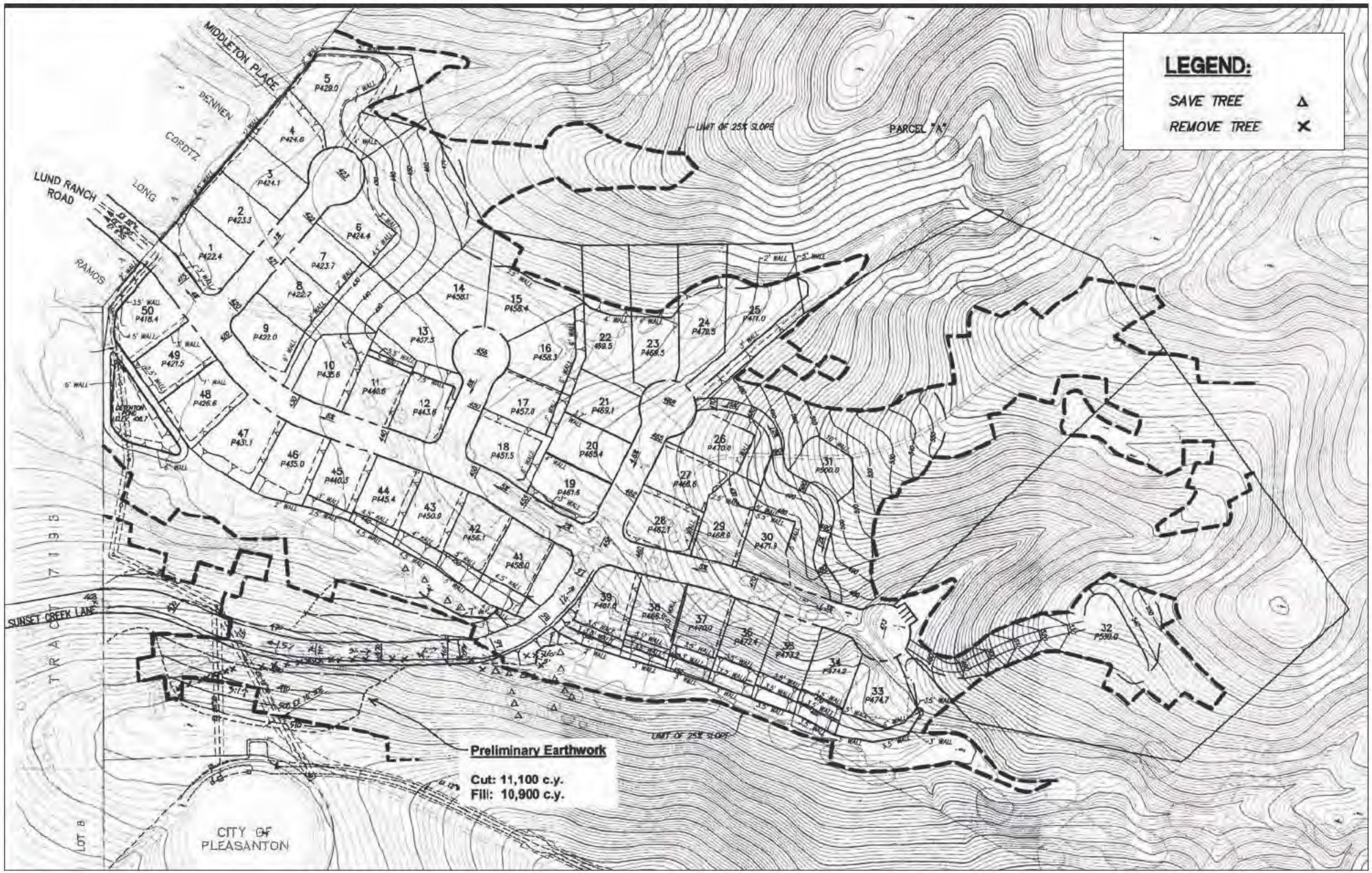
Impacts related to the above-described land use/planning, aesthetics, biological resources, geology/soils/seismicity, hydrology/water quality, cultural resources, public services, and hazards/hazardous materials are similar for all the alternative access scenarios. Impacts resulting from this alternative access scenario that would differ from the other alternative access scenarios are described as follows:

- **Land Use, Plans, and Policies:** As discussed in the *Impacts Common to All Alternative Access Scenarios* section, the Alternative Access Scenarios formulated for consideration include provisions that the proposed alternatives would develop residential uses similar in nature and scale as the proposed project in order to comply with the General Plan's land use designations and zoning ordinance requirements. As a result, the development of these alternatives with the Access Scenarios 2 through 8 would have land use impacts that are similar to those of the proposed project, including the development of residential uses at densities that are consistent with the average densities assumed for buildout of the Lund Ranch property under the General Plan land use designations. In addition, the project would not physically divide an established community.

  Scenario 3 involves the addition of a roadway connection Sunset Creek Lane to the project's extension of Lund Ranch Road. **Figure 5-3** presents a representative project design showing a potential connection of Sunset Creek Lane to a Lund Ranch Road extension on the project site. This access configuration would provide full site access north of the site's creek and would include a creek crossing for a connection to the Sycamore Heights neighborhood in the NSSP area. The circulation plan for the NSSP includes an east-west local road that extends to the NSSP boundary with the Lund Ranch property to serve future development on the project site. The NSSP-proposed east-west road approximately connects with the Lund Ranch property in the vicinity of the Sunset Creek Lane terminus. Since the Alternative Access Scenario 3 includes access to the Sycamore Heights neighborhood of the NSSP area, Scenario 3 would support the circulation and access design envisioned in the NSSP.
- **Biological Resources:** All of the alternative access scenarios would include residential project development occurring on the lower slopes of the Lund Ranch property, in the part of the site that is currently proposed for development. As with the proposed project, the development of this area would result in the loss of oak woodland/savanna habitat through the removal of oak trees for project access and residential development. The development of residential lots with these access alternatives

SUNSET CREEK LANE EXTENSION Scenario

FIGURE 5-3



Source: Ruggeri-Jensen-Azar (February 2013)

would also result in the loss of habitat for special-status species (e.g. California tiger salamanders) and indirect disturbances to nesting special-status and other migratory birds as well as roosting special-status bat species. Project construction would also require the filling of seasonal drainage channels and wetlands.

Scenario 3 involves the addition of a roadway connection from Sunset Creek Lane to the project's extension of Lund Ranch Road. This access configuration would provide full site access north of the site's creek and would exclude a creek crossing. With the exception of Scenario 2, all of the remaining access scenarios would require a creek crossing on the project site. Consequently,

Scenarios 3 through 8 could have a greater impact on the riparian portion of the project site, depending on the method(s) used to cross the site's creek.

- **Geology, Soils, and Seismicity:** As is the case for the project, all of the alternative access roads and a residential development served by these roads would likely be subject to one or more severe earthquakes and associated seismic hazards during the life of the project. Potential erosion, slope instability, expansive and compressible soils impacts could also occur with development of the alternate access roads. The alignments evaluated in Scenarios 3 through 8 would involve grading on slopes that exceed 25%, which would be subject to a greater potential for erosion than would occur for only the extension of Lund Ranch Road. Scenario 2 entails an extension from Middleton Place to Lund Ranch Road and would not cross slopes exceeding 25%.

  Traffic and Circulation: Alternate access Scenario 3 includes connections to Lund Ranch Road and Sunset Creek Lane. Table 5-1 indicates that this access alternative would result in traffic increases on 13 neighborhood streets, more than the proposed project and Scenario 2. This alternate access scenario would also result in a traffic volume decrease of 20 daily trips on one street, Independence Drive, north of Hopkins Way. Under the project's street configuration, the traffic volumes for this street segment would increase by 490 additional daily trips.

- **Noise:** Noise increases would be expected from residential activities on-site as well as project-related traffic increases on local residential streets. As indicated in Table 5-2, traffic volume changes associated with Scenario 3 would result in traffic noise increases that exceed General Plan thresholds as defined by General Plan Noise Policy 1, Program 1.3, on one street segment, Hanifen Way north of Sycamore Creek Way, a different street from the two streets that would be significantly affected under the proposed project. This increased noise level of 5.4 dBA would be in contrast with no noise increases expected on this street due to no additional traffic increases anticipated from the proposed project. Increased noise levels under this alternative would constitute a significant noise impact under this alternative. In order to reduce the potential noise impacts of this alternative, the project applicant would be required to implement mitigation on these two roadways similar to Mitigation Measure 4.7-4 for the proposed project, reducing the project's estimated increase in traffic noise to less than significant levels.

- **Air Quality:** Access changes under Scenario 3 would not substantially alter air pollutant emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially

different from the proposed project's trip lengths (less than 0.2 mile in travel routes to Sunol Boulevard difference under this scenario versus the proposed project), air pollutant emissions from mobile sources would not be substantially different from the proposed project.

- **Greenhouse Gas Emissions:** Access changes under Scenario 3 would not substantially alter greenhouse gas emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths (less than 0.2 mile in travel routes to Sunol Boulevard difference under this scenario versus the proposed project), GHG emissions from mobile sources would not be substantially different from the proposed project.

Alternative Access Scenario 4 Impacts

Impacts related to the above-described land use/planning, aesthetics, biological resources, geology/soils/seismicity, hydrology/water quality, cultural resources, public services, and hazards/hazardous materials are similar for all the alternative access scenarios. Impacts resulting from this alternative access scenario that would differ from the other alternative access scenarios are described as follows:

- **Land Use, Plans, and Policies:** As discussed in the *Impacts Common to All Alternative Access Scenarios* section, the Alternative Access Scenarios formulated for consideration include provisions that the proposed alternatives would develop residential uses similar in nature and scale as the proposed project in order to comply with the General Plan's land use designations and zoning ordinance requirements. As a result, the development of these alternatives with the Access Scenarios 2 through 8 would have land use impacts that are similar to those of the proposed project, including the development of residential uses at densities that are consistent with the average densities assumed for buildout of the Lund Ranch property under the General Plan land use designations. In addition, the project would not physically divide an established community.

  Scenario 4 involves the addition of roadway connections to Sunset Creek Lane and Middleton Place as part of the project's extension of Lund Ranch Road. This access configuration would provide full site access north of the site's creek and would include a creek crossing for a connection to the Sycamore Heights neighborhood in the NSSP area. The circulation plan for the NSSP includes an east-west local road that extends to the NSSP boundary with the Lund Ranch property to serve future development on the project site. The NSSP-proposed east-west road approximately connects with the Lund Ranch property in the vicinity of the Sunset Creek Lane terminus. Since the Alternative Access Scenario 4 includes access to the Sycamore Heights neighborhood of the NSSP area, Scenario 4 would support the circulation and access design envisioned in the NSSP.

- **Biological Resources:** All of the alternative access scenarios would include residential project development occurring on the lower slopes of the Lund Ranch property, in the part of the site that is currently proposed for development. As with the proposed project, the development of this area would result in the loss of oak woodland/savanna habitat through the removal of oak trees for project access and residential development. The development of residential lots with these access alternatives would also result in the loss of habitat for special-status species (e.g. California tiger salamanders) and indirect disturbances to nesting special-status and other migratory birds as well as roosting

special-status bat species. Project construction would also require the filling of seasonal drainage channels and wetlands.

Scenario 2 involves the addition of a roadway connection from Middleton Place to the project's extension of Lund Ranch Road. This access configuration would provide full site access north of the site's creek and would preclude a creek crossing. With the exception of Scenario 2, all of the remaining access scenarios would require a creek crossing on the project site. Consequently, Scenarios 3 through 8 could have a greater impact on the riparian portion of the project site, depending on the method(s) used to cross the site's creek.

- **Geology, Soils, and Seismicity:** As is the case for the project, all of the alternative access roads and a residential development served by these roads would likely be subject to one or more severe earthquakes and associated seismic hazards during the life of the project. Potential erosion, slope instability, expansive and compressible soils impacts could also occur with development of the alternate access roads. The alignments evaluated in Scenarios 3 through 8 would involve grading on slopes that exceed 25%, which would be subject to a greater potential for erosion than would occur for only the extension of Lund Ranch Road. Scenario 2 entails an extension from Middleton Place to Lund Ranch Road and would not cross slopes exceeding 25%.
- **Traffic and Circulation:** Scenario 4 would have the most substantial effect on neighborhood streets, increasing traffic volumes on 14 of the 17 streets included in the study. Although more streets would be subject to traffic increases, these increases would be relatively smaller than those under the proposed project (i.e., traffic increases due to the project and this access change would be distributed over a greater number of streets). Livingston Way between Middleton Place and Braxton Place would be closed and traffic from the 15 homes on Middleton Place would be rerouted through a connection of Livingston Place to the project site. The Lund Ranch Road – Middleton Place – Sunset Creek Lane access alternative would result in traffic increases on nine neighborhood streets, similar to the proposed project. This alternate access scenario would also result in traffic volume decreases of 140 daily trips on two streets, Hopkins Way and Livingston/ Middleton Place, and a decrease of 100 daily trips on Independence Drive north of Hopkins Way. Under the project's street configuration, the traffic volumes for these two street segments would remain unchanged, i.e. continue to carry 290 and 140 daily trips. All of the remaining 14 street segments indicated for Scenario 4 would increase in traffic volumes by 30 to 410 daily trips. The largest increases in traffic volumes would occur on Sycamore Creek Way and Sycamore Road.
- **Noise:** As indicated in Table 5-2, traffic volume changes associated with Scenario 4 would result in traffic noise increases that exceed General Plan thresholds as defined by General Plan Noise Policy 1, Program 1.3, on one street segment, Hanifen Way north of Sycamore Creek Way, a different street from the two streets that would be significantly affected under the proposed project. This increased noise level of 5.9 dBA would be in contrast with no noise increases expected on this street due to no additional traffic increases anticipated from the proposed project. Increased noise levels under this alternative would constitute a significant noise impact under this alternative. In order to reduce the potential noise impacts of this alternative, the project applicant would be required to implement

mitigation on these two roadways similar to Mitigation Measure 4.7-4 for the proposed project, reducing the project's estimated increase in traffic noise to less than significant levels.

- **Air Quality:** Access changes under Scenario 4 would not substantially alter air pollutant emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths (less than 0.2 mile differences in travel routes to Sunol Boulevard), air pollutant emissions from mobile sources would not be substantially different from the proposed project.
- **Greenhouse Gas Emissions:** Access changes under Scenario 4 would not substantially alter greenhouse gas emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths (less than 0.2 mile in travel routes to Sunol Boulevard difference), GHG emissions from mobile sources would not be substantially different from the proposed project.

Alternative Access Scenario 5 Impacts

Impacts related to the above-described land use/planning, aesthetics, biological resources, geology/soils/seismicity, hydrology/water quality, cultural resources, public services, and hazards/hazardous materials are similar for all the alternative access scenarios. Impacts resulting from this alternative access scenario that would differ from the other alternative access scenarios are described as follows:

- **Land Use, Plans, and Policies:** As discussed in the *Impacts Common to All Alternative Access Scenarios* section, the Alternative Access Scenarios formulated for consideration include provisions that the proposed alternatives would develop residential uses similar in nature and scale as the proposed project in order to comply with the General Plan's land use designations and zoning ordinance requirements. As a result, the development of these alternatives with the Access Scenarios 2 through 8 would have land use impacts that are similar to those of the proposed project, including the development of residential uses at densities that are consistent with the average densities assumed for buildout of the Lund Ranch property under the General Plan land use designations. In addition, the project would not physically divide an established community.

  Scenario 5 involves the addition of roadway connections to Sunset Creek Lane, Middleton Place, and Sycamore Creek Way from the project's extension of Lund Ranch Road. This access configuration would provide full site access north of the site's creek and would include a creek crossing for a connection to the Sycamore Heights neighborhood in the NSSP area. The circulation plan for the NSSP includes an east-west local road that extends to the NSSP boundary with the Lund Ranch property to serve future development on the project site. The NSSP-proposed east-west road approximately connects with the Lund Ranch property in the vicinity of the Sunset Creek Lane terminus. Additionally, Scenario 5 provides for the extension of an access road to Sycamore Creek Way, which is identified by both the NSSP and the HVSP. Since the Alternative Access Scenario 5 includes access to the Sycamore Heights neighborhood of the NSSP area and provides for a connection to the Bypass Road planned as part of the HVSP, Scenario 5 would support the circulation and access design in both specific plans.

- **Biological Resources:** All of the alternative access scenarios would include residential project development occurring on the lower slopes of the Lund Ranch property, in the part of the site that is currently proposed for development. As with the proposed project, the development of this area would result in the loss of oak woodland/savanna habitat through the removal of oak trees for project access and residential development. The development of residential lots with these access alternatives would also result in the loss of habitat for special-status species (e.g. California tiger salamanders) and indirect disturbances to nesting special-status and other migratory birds as well as roosting special-status bat species. Project construction would also require the filling of seasonal drainage channels and wetlands.

  This access configuration would provide full site access north of the site's creek and would exclude a creek crossing. With the exception of Scenario 2, all of the remaining access scenarios would require a creek crossing on the project site. Consequently, Scenarios 3 through 8 could have a greater impact on the riparian portion of the project site, depending on the method(s) used to cross the site's creek.

- **Geology, Soils, and Seismicity:** As is the case for the project, all of the alternative access roads and a residential development served by these roads would likely be subject to one or more severe earthquakes and associated seismic hazards during the life of the project. Potential erosion, slope instability, expansive and compressible soils impacts could also occur with development of the alternate access roads. The alignments evaluated in Scenarios 3 through 8 would involve grading on slopes that exceed 25%, which would be subject to a greater potential for erosion than would occur for only the extension of Lund Ranch Road.

- **Traffic and Circulation:** Scenario 5, the Lund Ranch Road – Middleton Place – Sunset Creek Lane – Sycamore Creek Way access alternative would have effects on neighborhood streets that are similar to Scenario 4, increasing traffic volumes on 13 of the 17 streets included in the study. Livingston Way between Middleton Place and Braxton Place would be closed and traffic from the 15 homes on Middleton Place would be rerouted through a connection of Livingston Place to the project site. This alternate access scenario would also result in traffic volume decreases of on four streets: Hopkins Way, Livingston/Middleton Place, Independence Drive, and Sunset Creek Lane. All of the remaining 13 street segments indicated for Scenario 5 would increase in traffic volumes by 20 to 410 daily trips. The largest increases in traffic volumes would occur on Sycamore Creek Way and Sycamore Road, with increases of 410 daily trips for each segment.

- **Noise:** As indicated in Table 5-2, traffic volumes changes associated with Scenario 5 would not result in any traffic noise increases that exceed the General Plan thresholds as defined by General Plan Noise Policy 1, Program 1.3, avoiding the significant noise increases on two residential streets that would occur under the proposed project.

- **Air Quality:** Access changes under Scenario 5 would not substantially alter air pollutant emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths (less than 0.2 mile differences in travel routes to Sunol Boulevard), air pollutant emissions from mobile sources would not be substantially different from the proposed project.

- **Greenhouse Gas Emissions:** Access changes under Scenario 5 would not substantially alter greenhouse gas emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths (less than 0.2 mile differences in travel routes to Sunol Boulevard), GHG emissions from mobile sources would not be substantially different from the proposed project.

Alternative Access Scenario 6 Impacts

Impacts related to the above-described land use/planning, aesthetics, biological resources, geology/ soils/seismicity, hydrology/water quality, cultural resources, public services, and hazards/hazardous materials are similar for all the alternative access scenarios. Impacts resulting from this alternative access scenario that would differ from the other alternative access scenarios are described as follows:

- **Land Use, Plans, and Policies:** As discussed in the *Impacts Common to All Alternative Access Scenarios* section, the Alternative Access Scenarios formulated for consideration include provisions that the proposed alternatives would develop residential uses similar in nature and scale as the proposed project in order to comply with the General Plan's land use designations and zoning ordinance requirements. As a result, the development of these alternatives with the Access Scenarios 2 through 8 would have land use impacts that are similar to those of the proposed project, including the development of residential uses at densities that are consistent with the average densities assumed for buildout of the Lund Ranch property under the General Plan land use designations. In addition, the project would not physically divide an established community.

  Scenario 6 involves the addition of a roadway connection between Middleton Place and Sunset Creek Lane to serve as access to the proposed residential development on the Lund Ranch site. This access configuration would provide full site access north of the site's creek and would include a creek crossing for a connection to the Sycamore Heights neighborhood in the NSSP area. The circulation plan for the NSSP includes an east-west local road that extends to the NSSP boundary with the Lund Ranch property to serve future development on the project site. The NSSP-proposed east-west road approximately connects with the Lund Ranch property in the vicinity of the Sunset Creek Lane terminus. Since the Alternative Access Scenario 6 includes access to the Sycamore Heights neighborhood of the NSSP area, Scenario 6 would support the circulation and access design of the NSSP and is consistent with the intent of the NSSP.

- **Traffic and Circulation:** Table 5-1 indicates that Scenario 6, based on the Bonde Ranch agreement to connect Middleton Place with Sunset Creek Lane through Lund Ranch, would result in traffic increases on six street segments, with the largest increases on three streets: Sunset Creek Lane, Sycamore Creek Way, and Sycamore Road. Each of these neighborhood streets would be expected to carry an increase of 690 daily trips. Livingston Way between Middleton Place and Braxton Place would be closed and traffic from the 15 homes on Middleton Place would be rerouted through a connection of Livingston Place to the project site. This alternate access scenario would also result in traffic volume decreases ranging from 140 to 0 daily trips on the remaining 11 neighborhood streets.

Under the project's street configuration, the traffic volumes for these 11 street segments would increase from 0 to 550 daily trips.

- **Noise:** As indicated in Table 5-2, traffic volume changes associated with Scenario 6 would result in traffic noise increases that exceed General Plan thresholds as defined by General Plan Noise Policy 1, Program 1.3, on two street segments (Sunset Creek Lane east of Hanifen Way and Hanifen Way north of Sycamore Creek Way), the same number of streets affected by the proposed project. However, increased noise levels would be 9.0 dBA and 8.3 dBA, respectively, which would be greater than significant noise increases estimated for two different streets under the proposed project. It should be noted that both of these street segments would experience no traffic noise increases under the proposed project. Increased noise levels under this alternative would constitute a significant noise impact under this alternative. In order to reduce the potential noise impacts of this alternative, the project applicant would be required to implement mitigation on these two roadways similar to Mitigation Measure 4.7-4 for the proposed project, reducing the project's estimated increase in traffic noise to less than significant levels.
- **Air Quality:** Access changes under Scenario 6 would not substantially alter air pollutant emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths (less than 0.2 mile differences in travel routes to Sunol Boulevard), air pollutant emissions from mobile sources would not be substantially different from the proposed project.
- **Greenhouse Gas Emissions:** Access changes under Scenario 6 would not substantially alter greenhouse gas emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths (less than 0.2 mile differences in travel routes to Sunol Boulevard), GHG emissions from mobile sources would not be substantially different from the proposed project.

Alternative Access Scenario 7 Impacts

Impacts related to the above-described land use/planning, aesthetics, biological resources, geology/soils/seismicity, hydrology/water quality, cultural resources, public services, and hazards/hazardous materials are similar for all the alternative access scenarios. Impacts resulting from this alternative access scenario that would differ from the other alternative access scenarios are described as follows:

- **Land Use, Plans, and Policies:** As discussed in the *Impacts Common to All Alternative Access Scenarios* section, the Alternative Access Scenarios formulated for consideration include provisions that the proposed alternatives would develop residential uses similar in nature and scale as the proposed project in order to comply with the General Plan's land use designations and zoning ordinance requirements. As a result, the development of these alternatives with the Access Scenarios 2 through 8 would have land use impacts that are similar to those of the proposed project, including the development of residential uses at densities that are consistent with the average densities assumed for buildout of the Lund Ranch property under the General Plan land use designations. In addition, the project would not physically divide an established community.

Scenario 7 involves the addition of a roadway connection between Middleton Place and Sycamore Creek Way to serve as access to the proposed residential development on the Lund Ranch site. This access configuration would provide full site access north of the site's creek and would include a creek crossing for a connection to the Sycamore Heights neighborhood in the NSSP area. Although the circulation plan for the NSSP includes an east-west local road that extends to the NSSP boundary with the Lund Ranch property to serve future development on the project site, Scenario 7 would not include a connection of the NSSP-proposed east-west local road (Sunset Creek Lane) with the Lund Ranch property in the vicinity of the Sunset Creek Lane terminus. While Scenario 7 includes a connection to the Sycamore Heights neighborhood of the NSSP area, Scenario 7 would not completely support the circulation and access design of the NSSP and is partly consistent with the intent of the NSSP. Scenario 7's connection of the Lund Ranch property to the Sycamore Heights neighborhood does not address the HVSP's planned connection of Sycamore Creek Way to the proposed Bypass Road.

- **Biological Resources:** All of the alternative access scenarios would include residential project development occurring on the lower slopes of the Lund Ranch property, in the part of the site that is currently proposed for development. As with the proposed project, the development of this area would result in the loss of oak woodland/savanna habitat through the removal of oak trees for project access and residential development. The development of residential lots with these access alternatives would also result in the loss of habitat for special-status species (e.g. California tiger salamanders) and indirect disturbances to nesting special-status and other migratory birds as well as roosting special-status bat species. Project construction would also require the filling of seasonal drainage channels and wetlands.

  Scenario 2 involves the addition of a roadway connection from Middleton Place to the project's extension of Lund Ranch Road. This access configuration would provide full site access north of the site's creek and would preclude a creek crossing. With the exception of Scenario 2, all of the remaining access scenarios would require a creek crossing on the project site. Consequently, Scenarios 3 through 8 could have a greater impact on the riparian portion of the project site, depending on the method(s) used to cross the site's creek.

- **Geology, Soils, and Seismicity:** As is the case for the project, all of the alternative access roads and a residential development served by these roads would likely be subject to one or more severe earthquakes and associated seismic hazards during the life of the project. Potential erosion, slope instability, expansive and compressible soils impacts could also occur with development of the alternate access roads. The alignments evaluated in Scenarios 3 through 8 would involve grading on slopes that exceed 25%, which would be subject to a greater potential for erosion than would occur for only the extension of Lund Ranch Road. Scenario 2 entails an extension from Middleton Place to Lund Ranch Road and would not cross slopes exceeding 25%.

- **Traffic and Circulation:** Scenario 7 would entail an extension of Middleton Place through Lund Ranch, connecting with Sycamore Creek Way. Livingston Way between Middleton Place and Braxton Place would be closed and traffic from the 15 homes on Middleton Place would be rerouted

through a connection of Livingston Place to the project site. Table 5-1 indicates that this access alternative would result in traffic increases on only two neighborhood streets, Sycamore Creek Way and Sycamore Road. Under this Scenario, traffic volumes would decrease on all other streets included in the traffic study.

- **Noise:** As indicated in Table 5-2, traffic volumes changes associated with Scenario 7 would not result in any traffic noise increases that exceed the General Plan thresholds as defined by General Plan Noise Policy 1, Program 1.3, avoiding the significant noise increases on two residential streets that would occur under the proposed project.
- **Air Quality:** Access changes under Scenario 7 would not substantially alter air pollutant emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths (less than 0.2 mile differences in travel routes to Sunol Boulevard), air pollutant emissions from mobile sources would not be substantially different from the proposed project.
- **Greenhouse Gas Emissions:** Access changes under Scenario 7 would not substantially alter greenhouse gas emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths (less than 0.2 mile differences in travel routes to Sunol Boulevard), GHG emissions from mobile sources would not be substantially different from the proposed project.

Alternative Access Scenario 8 Impacts

Impacts related to the above-described land use/planning, aesthetics, biological resources, geology/soils/seismicity, hydrology/water quality, cultural resources, public services, and hazards/hazardous materials are similar for all the alternative access scenarios. Impacts resulting from this alternative access scenario that would differ from the other alternative access scenarios are described as follows:

- **Land Use, Plans, and Policies:** As discussed in the *Impacts Common to All Alternative Access Scenarios* section, the Alternative Access Scenarios formulated for consideration include provisions that the proposed alternatives would develop residential uses similar in nature and scale as the proposed project in order to comply with the General Plan's land use designations and zoning ordinance requirements. As a result, the development of these alternatives with the Access Scenarios 2 through 8 would have land use impacts that are similar to those of the proposed project, including the development of residential uses at densities that are consistent with the average densities assumed for buildout of the Lund Ranch property under the General Plan land use designations. In addition, the project would not physically divide an established community.

  Scenario 8 involves the addition of a roadway connection between Middleton Place, Sunset Creek Lane, and Sycamore Creek Way to serve as access to the proposed residential development on the Lund Ranch site. This access configuration would provide full site access north of the site's creek and would include a creek crossing for a connection to the Sycamore Heights neighborhood in the NSSP area. The circulation plan for the NSSP includes an east-west local road that extends to the NSSP

boundary with the Lund Ranch property to serve future development on the project site. The NSSP-proposed east-west road approximately connects with the Lund Ranch property in the vicinity of the Sunset Creek Lane terminus. Additionally, Scenario 8 provides for the extension of an access road to Sycamore Creek Way, which is identified by both the NSSP and the HVSP. Since the Alternative Access Scenario 8 includes access to the Sycamore Heights neighborhood of the NSSP area and provides for a connection to the Bypass Road planned as part of the HVSP, Scenario 8 would support the circulation and access design of the both specific plans and is consistent with the intent of the NSSP and HVSP.

- **Biological Resources:** All of the alternative access scenarios would include residential project development occurring on the lower slopes of the Lund Ranch property, in the part of the site that is currently proposed for development. As with the proposed project, the development of this area would result in the loss of oak woodland/savanna habitat through the removal of oak trees for project access and residential development. The development of residential lots with these access alternatives would also result in the loss of habitat for special-status species (e.g. California tiger salamanders) and indirect disturbances to nesting special-status and other migratory birds as well as roosting special-status bat species. Project construction would also require the filling of seasonal drainage channels and wetlands.

  Scenario 2 involves the addition of a roadway connection from Middleton Place to the project's extension of Lund Ranch Road. This access configuration would provide full site access north of the site's creek and would preclude a creek crossing. With the exception of Scenario 2, all of the remaining access scenarios would require a creek crossing on the project site. Consequently, Scenarios 3 through 8 could have a greater impact on the riparian portion of the project site, depending on the method(s) used to cross the site's creek.

- **Geology, Soils, and Seismicity:** As is the case for the project, all of the alternative access roads and a residential development served by these roads would likely be subject to one or more severe earthquakes and associated seismic hazards during the life of the project. Potential erosion, slope instability, expansive and compressible soils impacts could also occur with development of the alternate access roads. The alignments evaluated in Scenarios 3 through 8 would involve grading on slopes that exceed 25%, which would be subject to a greater potential for erosion than would occur for only the extension of Lund Ranch Road. Scenario 2 entails an extension from Middleton Place to Lund Ranch Road and would not cross slopes exceeding 25%.

- **Traffic and Circulation:** Table 5-1 indicates that the Middleton Place – Sunset Creek Lane – Sycamore Creek Way access alternative would result in traffic increases on six neighborhood streets, similar to Scenario 6. Livingston Way between Middleton Place and Braxton Place would be closed and traffic from the 15 homes on Middleton Place would be rerouted through a connection of Livingston Place to the project site. While decreases in traffic volumes for Scenario 8 would be similar to the Bonde Agreement (Scenario 6) alternative, traffic volume increases on four streets would be less than those experienced with Scenario 6: Sunset Creek Lane, Hanifen Way, Dalton

Creek Way, and Summit Creek Lane. This alternate access scenario would also result in the largest traffic volume increases of 690 daily trips on two streets, Sycamore Creek Way and Sycamore Road.

- **Noise:** Operation of proposed residences would result in noise increases from residential activities on-site as well as project-related traffic increases on local residential streets. As indicated in Table 5-2, traffic volume changes associated with Scenario 8 would result in traffic noise increases that exceed General Plan thresholds as defined by General Plan Noise Policy 1, Program 1.3, on one street segment, Sunset Creek Lane east of Hanifen Way, a different street from the two streets that would be significantly affected under the proposed project. This increased noise level of 4.9 dBA would be in contrast with no noise increases expected on this street due to no additional traffic increases anticipated from the proposed project. Increased noise levels under this alternative would constitute a significant noise impact under this alternative. In order to reduce the potential noise impacts of this alternative, the project applicant would be required to implement mitigation on these two roadways similar to Mitigation Measure 4.7-4 for the proposed project, reducing the project's estimated increase in traffic noise to less than significant levels.
- **Air Quality:** Access changes under Scenario 8 would not substantially alter air pollutant emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths (less than 0.2 mile differences in travel routes to Sunol Boulevard), air pollutant emissions from mobile sources would not be substantially different from the proposed project.
- **Greenhouse Gas Emissions:** Access changes under Scenario 8 would not substantially alter greenhouse gas emissions in comparison to the proposed project. Since trip lengths under this scenario would not be substantially different from the proposed project's trip lengths (less than 0.2 mile differences in travel routes to Sunol Boulevard), GHG emissions from mobile sources would not be substantially different from the proposed project.

5.2.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR is required to identify the Environmentally Superior Alternative from a range of reasonable and feasible alternatives evaluated in the EIR [Section 15126.6 (e) (2)]. If the Environmentally Superior Alternative is the "No Project" Alternative, the EIR shall also identify an Environmentally Superior Alternative among the other alternatives. The Environmentally Superior Alternative would be the alternative that results in fewer environmental impacts.

The preceding discussion compares the impacts of these alternatives with the proposed project. **Table 5-3** summarize the impacts that would occur under the proposed project, and also indicates the relative differences in these impacts under each alternative scenario and applicability of mitigation measures included in Chapter 4 to each alternative scenario. Table 5-3 also includes a comparison of the alternative access scenarios' potential impacts vis-à-vis the Mitigated Project.

The No Project Alternative would avoid demolition/construction-related impacts associated with the proposed project and, as a result, would be the Environmentally Superior Alternative. As indicated above, the EIR must also identify an environmentally superior alternative among the other alternatives. A comparative evaluation of the Alternative Access Scenarios indicates, overall, that these would result in greater impacts than the proposed project without mitigation. The principal reasons for the higher level of potential impacts from the Alternative Access Scenarios involves: 1) additional and more extensive biological impacts associated with crossing a creek; 2) the geological and soils impacts related to grading for roadway construction on hillside slopes exceeding 25% on the southern portion of the project site; and 3) the introduction of increased traffic noise to neighborhoods adjoining the project site. However, all of the mitigation measures specified in this EIR would have to be required under the proposed project or the Alternative Access Scenarios, while the Mitigated Project Alternative already includes all of the EIR mitigation measures.

The Alternative Access Scenarios would reduce or increase the extent and levels of environmental effects depending on the specific resource under consideration for each individual alternative. As an example, Alternative Access Scenarios 5 (Middleton Place, Sunset Creek Lane, Sycamore Creek Way, and Lund Ranch Road) and 7 (Middleton Place and Sycamore Creek Way) would not result in increased traffic noise effects for the neighborhoods connecting through the proposed Lund Ranch property. However, due to the required creek crossing and road construction, these alternatives would have biological and geological/soils impacts that would be greater than those from the proposed project. Similar conclusions would pertain to all of the other Alternative Access Scenarios considered in this review.

With respect to the selection of the Environmentally Superior Alternative, one of the Alternative Access Scenarios, Alternative Access Scenario 2 (Lund Ranch Road and Middleton Place), would have only slightly greater environmental effects than the Mitigated Project. This alternative would have increased biological and traffic noise impacts relative to the Mitigated Project, but no potential geological/soils or biological impacts associated with road grading or crossing the creek in the southern part of the project site, as with the other Alternative Access Scenarios. As indicated in Table 5-3, the Mitigated Project

would have the least environmental effects from project development and would therefore be the Environmentally Superior Alternative that meets most of the Project Objectives.

TABLE 5-3

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
Meets Most Project Objectives?	Yes	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Land Use											
4.1-1: The project proposes to develop residential uses at densities that are consistent with the average densities assumed for buildout of the General Plan.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.1-2: The project would alter former and existing land uses on the site.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
Aesthetics											
4.2-1: The project development would potentially affect hillside views from Bernal Community Park (Pleasanton Avenue), Bernal Avenue, and Valley Floor viewpoints.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.2-2: The project development would potentially affect hillside and ridgeline views from Hopkins Way viewpoints.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.2-3: The project development would potentially affect hillside and ridgeline views from Lund Ranch Road.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.2-4: The project could potentially affect nearby views from viewpoints in the vicinity of Livingston Way, Middleton Place and Livingston Place.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
Biological Resources											
4.3-1: Project construction would result in a loss of oak woodland/savanna habitat and would require the removal of 146 trees, including 80 Heritage trees.	Less than Significant with Mitigation	**Mitigation Measure 4.3-1a (applies to all alternative access scenarios):** An Oak Woodland Restoration and Management Plan shall be prepared by a qualified biologist and submitted to the City prior to the issuance of a Grading Permit. This Plan shall include provisions to: • Maximize the diversity of plants and animals native to oak woodlands of the region; • Encourage natural regeneration of native oaks (including blue oaks, valley oaks and coast live oaks) within undeveloped portions of the project site; • Reduce fire hazards during the dry season; and • Restrict livestock grazing. The oak woodland management plan would address tree replacement requirements as stipulated through City consultation with the CDFW for the project. Presently, the CDFW generally specifies a replacement ratio of 3:1 for the replacement of native oaks, regardless of the lost trees' positions relative to the riparian zone. The management plan should include restrictions on livestock grazing to ensure natural regeneration of oaks within the open space areas. **Mitigation Measure 4.3-1b (applies to all alternative access scenarios):** The relevant provisions of the City of Pleasanton's Tree Ordinance, including acquisition of a tree removal permit (Section 17.16.020), reporting requirements for new property development (Section 17.16.050) and protection of existing trees (Section 17.16.070) should be implemented. The Oak Woodland Restoration and Management Plan discussed above should indicate the ratio, location, species, source of plant material and timing for planting. It shall also describe plans for maintenance and irrigation. Heritage trees should be replaced at a ratio consistent with the City's tree ordinance with small nursery stock. These ratios shall compensate for habitat values lost from the removal of mature trees. Planting time between November and January is recommended. To preserve the genetic integrity of trees of the site, acorns and seeds to be	<	=	>	>	>	>	>	>	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
		propagated should be collected on-site. A minimum maintenance and irrigation time of three years is recommended. In order to optimize tree preservation on-site, the following measures formulated by HortScience shall be implemented to protect trees that are proposed to be retained: Design Recommendations 1. Verity the location and tag numbers of all trees within 25 feet of the proposed construction areas. 2. Allow the Consulting Arborist to review all future project submittals including grading, utility, drainage, irrigation, and landscape plans. 3. Prepare a site work plan which identifies access and haul routes, construction trailer and storage areas, etc. 4. Establish a Tree Protection Zone around each tree to be preserved. For design purposes, the Tree Protection Zone shall be the edge of grading. No grading, excavation, construction or storage of materials shall occur within that Zone. 5. Install protection around all trees to be preserved, to be located three feet outside the limit of grading. No entry is permitted into a Tree Protection Zone without permission of the project superintendent. 6. Route underground services including utilities, sub-drains, water or sewer around the Tree Protection Zone. Where encroachment cannot be voided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury. 7. Use only herbicides safe for use around trees and labeled for that use, even below pavement. 8. Design irrigation systems so that no trenching shall occur within the Tree Protection Zone. Pre-Construction and Demolition Treatments and Recommendations 1. The demolition contractor shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection. 2. Trees to be removed shall be felled so as to fall away from Tree Protection Zone and avoid pulling and breaking of roots of trees									

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
		to remain. If roots are entwined, the consultant may require first severing the major woody root mass before extracting the trees, or grinding the stump below ground. Tree Protection During Construction 1. Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures. 2. Any grading, construction, demolition or other work that is expected to encounter tree roots should be monitored by the Consulting Arborist. 3. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied. 4. Fences shall be erected to protect trees to be preserved. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the project superintendent. 5. Construction trailers, traffic and storage areas must remain outside fenced areas at all times. 6. No materials, equipment, spoil, waste or wash-out water may be deposited, stored, or parked within the Tree Protection Zone (fenced areas). 7. Any additional tree pruning needed for clearance during construction must be performed by a qualified arborist and not by construction personnel. 8. All trees shall be irrigated on a schedule to be determined by the Consulting Arborist. Each irrigation shall wet the soil within the Tree Protection Zone to a depth of 30 inches. 9. Any roots damaged during grading or construction shall be exposed to sound tissue and cut cleanly with a saw.									
4.3-2: The project would result in the loss of habitat for the California tiger salamander and individual California tiger salamanders may be taken during	Less than Significant with Mitigation	**Mitigation Measure 4.3-2a (applies to all alternative access scenarios)**: To mitigate for the loss of aestivation habitat and potential impacts to any aestivating California Tiger Salamander (CTS) on-site, the project applicant shall permanently preserve and	<	=	=	=	=	=	=	=	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
construction of the project		manage potential CTS upland aestivation habitat located on the project site between the proposed development area and Pond 2, located on the adjacent Oak Grove property. The amount of such preserved and managed habitat shall be not less than the amount of land developed as a result of project construction (i.e., 1:1 acreage ratio). The applicant shall preserve such habitat through the recording of a deed restriction, conservation easement, or other equivalent instrument which precludes future development or the construction of physical barriers to the movement of CTS across the preserved habitat. The applicant shall also develop, and arrange for the implementation of a habitat management plan for the preserved habitat. Prior to the issuance of a grading permit, the applicant shall provide a copy of the recorded instrument (which will identify the precise size and location of the permanently preserved habitat), the habitat management plan and the federal and state take authorizations to the City. The applicant shall also provide copies of the incidental take authorizations secured for the project from the USFWS and CDFG to the City. **Mitigation Measure 4.3-2b (applies to all alternative access scenarios):** To avoid and minimize the loss of individual California Tiger Salamander (CTS), the applicant shall be responsible for implementing the following measures prior to and during construction: ▪ Prior to ground disturbance, an employee training program for operators/contractors shall be conducted by a qualified biologist to explain the endangered species concerns at the project site; ▪ Site grading shall be conducted outside of the rainy season months during which CTS would be breeding or migrating; ▪ A qualified biologist shall identify conduct a preconstruction survey prior to the onset of site grading. All suitable habitat features that may be used by aestivating CTS shall be identified, marked and mapped during the preconstruction survey. The removal or destruction of suitable habitat features shall be conducted under the direct supervision of the qualified biologist prior to the onset of site grading. Any observed CTS shall be turned over to the USFWS or CDFG personnel for relocation, or shall be relocated by a biologist possessing an Endangered									

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
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		Species Act 10(a)(1)(A) permit as directed by the USFWS and CDFG; ▪ Best Management Practices shall also be implemented to minimize the potential mortality, injury or other impacts to CTS. Any installed erosion control materials shall not include small-mesh plastic netting. All trash items shall be removed from the project site to reduce the potential for attracting predators of CTS, such as crows and ravens.									
4.3-3: Project construction could disturb a maternity colony of bats and roosting special-status bats on the project site, resulting in the loss of individual bats or the abandonment of an active maternity colony.	Less than Significant with Mitigation	**Mitigation Measure 4.3-3 (applies to all alternative access scenarios):** The implementation of the following measures would ensure that maternity colonies of bats and roosting pallid bats and Townsend's big-eared bats would not be disturbed. a. A qualified biologist, knowledgeable about local bat species and experienced with bat survey methods, shall inspect all structures and trees that could support bats in the project area prior to the start of site disturbance (e.g. demolition, vegetation removal and earthwork). Surveys should be conducted during appropriate weather to detect bats (not in high winds or during heavy rain events). One daytime and up to two nighttime surveys (starting at least 1 hour prior to dusk) should be conducted to determine if bats are present. If bats are detected, additional surveys utilizing acoustic monitoring or other methods may be necessary depending on the recommendations of the bat biologist. b. Preconstruction surveys for bats should be conducted within two weeks prior to the removal of any trees or structures that are deemed to have potential bat roosting habitat. If bats are detected on-site and would be impacted by the project, then appropriate mitigation measures would be developed through City consultation with the CDFW. Mitigation measures would include one or more of the following methods: using one-way doors to exclude non-breeding bats, opening up roof areas of structures to allow airflow that would deter bats from roosting, and taking individual trees down in sections to encourage bats to relocate to another roost site. Typically this work is conducted in the evening when bats are more active, and this work should be conducted under the guidance of an experienced bat biologist.	<	=	=	=	=	=	=	=	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
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		c. Mitigation for impacts to a maternity bat roost, if detected, would be determined through consultation with CDFG and may include construction of structures that provide suitable bat roosting habitat (i.e. bat houses, bat condos) for the particular specie(s) impacted.									
4.3-4: Project construction could adversely affect raptor and/or other migratory bird nesting activity on the project site, result in the loss of individual birds, eggs or nestlings, or the abandonment of active nests. Project construction could also result in the loss of occupied burrowing owl habitat if burrowing owls or signs of owls are observed within the project development area.	Less than Significant with Mitigation	**Mitigation Measure 4.3-4 (applies to all alternative access scenarios):** The implementation of the following measures would ensure that raptors (hawks and owls) and other migratory birds are not disturbed during the breeding season and that burrowing owls and occupied habitat are not taken at any time of year: a. A qualified ornithologist shall conduct a pre-construction survey for nesting raptors (including both tree and ground nesting raptors) and other migratory birds on-site within two weeks of the onset of site disturbance (e.g. demolition, vegetation removal and earthwork), if ground disturbance is to occur during the breeding season (February 1 to August 31). These surveys shall be based on the accepted protocols for the target species. These surveys shall explicitly consider the burrowing owl as a potential target species and pre-construction efforts shall be conducted according to the most recent protocol. If a nesting raptor or active nest of another migratory bird were to be detected, an appropriate no disturbance buffer would be established in consultation with CDFW. In general, no-disturbance buffers around active nests of raptors are 250-300 feet, while the buffers around the nests of passerines (perching) are 50 feet. The actual size of buffer would depend on species, topography, and type of construction activity that would occur in the vicinity of the nest. The location of no-disturbance buffers would be marked in the field and communicated to the construction team during the preconstruction environmental training meeting described above in Mitigation Measure 4.3-2b. b. A qualified ornithologist shall conduct pre-construction surveys for burrowing owls during the non-breeding season. Pre-construction surveys during the non-breeding season are not necessary for tree nesting raptors, as they are expected to abandon their roosts during construction. If pre-construction	<	>	>	>	>	>	>	>	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
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		surveys (conducted either during the breeding or non-breeding season) determine that burrowing owls occupy the site, mitigation consistent with the Staff Report on Burrowing Owl Mitigation (CDFG, 2012) would be implemented. Mitigation measures may include take avoidance, site surveillance, minimizing impacts through the use of no disturbance buffers, burrow exclusion and closure (blocking burrows with one-way doors) and compensation for the loss of occupied habitat. These measures may be necessary to ensure that owls are not harmed or injured during construction, and that the loss of occupied habitat is mitigated. Mitigation for the loss of occupied habitat could be accomplished on or off the property, subject to approval of a mitigation land management plan by CDFG.									
4.3-5: Project construction would require the filling of seasonal drainage channels and in-channel wetlands.	Less than Significant with Mitigation	**Mitigation Measure 4.3-5 (applies to all alternative access scenarios):** The proposed project would impact 0.022 acre of Waters of the United States (0.016 acre and 243 lineal feet of drainage channel waters, and 0.006 acre of in-channel wetlands). While compensation for Waters of the United States should occur at a minimum of a 1:1 replacement ratio, the CDFG and RWQCB generally require a replacement ratio of 2:1 or better. To the degree possible, the applicant should replace lost wetland resources in kind. Thus, the project would create at least 243 feet (0.016 acre) of channel (1:1 ratio) and 0.006 acres of seasonal wetland on the Lund Ranch property. Creation of new channels can be logistically difficult as there are finite areas within a site to accomplish this type of mitigation. Therefore, some mitigation for the seasonal channel may have to be out-of-kind. This could be accomplished by creating additional seasonal wetlands. The creation of not less than 0.022 acre of wetland and/or seasonal channel would be required. The site supports sufficient opportunities to accommodate creation of wetland habitat. Even if the project could not create 243 feet of channel, there are a number of areas along Drainage Areas A and B and within the non-jurisdictional drainage swales on the site that could easily accommodate this type of creation mitigation. The goal of this mitigation should be to create new wetlands and enhance existing wetlands in a way that replaces the functions and	<	=	>	>	>	>	>	>	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
		values of the wetlands that are proposed to be filled. A qualified biologist should develop a restoration plan that identifies the full extent of the impact, location of suitable sites to create or enhance wetlands of the necessary acreage, and develop success criteria specific to the actual wetland creation design. The mitigation site should be monitored for at least five years. A detailed wetland restoration plan should be developed for this mitigation area during the regulatory permitting phase of the project. The plan will be subject to the review and approval of the USACE, RWQCB, CDFG and the City of Pleasanton. This plan should incorporate additional studies and details, including the following: ▪ Type and acreage of wetland to be impacted and goals for wetland creation ▪ Detailed assessment of soil suitability for wetland creation ▪ Description of site hydrology, including depth and duration of inundation, potential for scour or deposit of sediments, etc. ▪ Site preparation measures, including grading methods, to relieve compaction and/or ensure low potential for scouring of soils ▪ Revegetation and erosion control on slopes surrounding the mitigation site ▪ Description of buffer areas around the mitigation ▪ Maintenance program ▪ Long term monitoring program, including performance and success criteria. ▪ Measures to assure protection from human disturbance and to protect the area from development in perpetuity.									
4.3-6: Development of the project could result in the degradation of water quality in seasonal drainages, and downstream waters and affect associated habitat quality.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.3-7: Project development would convert 12 percent of the site to urban uses.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
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4.3-8: Project development would not interfere with corridor-type wildlife movements.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
Geology and Soils											
4.4-1: As is true for the entire region, the project would likely be subject to one or more severe earthquakes and associated seismic hazards during the life of the project.	Less than Significant with Mitigation	**Mitigation Measure 4.4-1a (applies to all alternative access scenarios):** In general, landslide debris shall be removed where present and replaced with engineered fill in accordance with the approved corrective grading plan. More detailed information regarding the location, extent, and depth of the required landslide mitigation shall be depicted on the final project corrective grading plan to be submitted with the final grading plan, subject to review and approval by the City of Pleasanton Building and Safety Services Division. **Mitigation Measure 4.4-1b (applies to all alternative access scenarios):** Landslide repairs shall be conducted on the natural slope behind Lots 24 and 25 (Landslide 17) and the proposed cut and fill slope adjacent to the driveway south of Lots 24 and 25 shall also be regarded. The finished slopes should be graded to approximately re-create the existing slope contours and to conform as much as possible with the adjacent natural slopes.	<	=	=	=	=	=	=	=	<
4.4-2: Construction of the project on steep slopes could result in soil erosion or the loss of topsoil.	Less than Significant with Mitigation	**Mitigation Measure 4.4-2a (applies to all alternative access scenarios):** In the event of a work stoppage due to rain during construction, the contractor shall construct positive slopes to carry water surface runoff away from steep slopes to storm drainage structures or other areas where erosion can be controlled. In no event shall a completed slope be left standing through the winter season without erosion control features being provided. **Mitigation Measure 4.4-2b (applies to all alternative access scenarios):** The onsite geotechnical engineer shall determine the depth of topsoil in the field during grading. Identified top soil shall be reserved and placed on graded slopes Excess top soil that is not suitable for use as engineered fill may be used in approved open space of landscape areas, if approved by the landscape architect. **Mitigation Measure 4.4-2c (applies to all alternative access**	<	=	>	>	>	>	>	>	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
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		scenarios): All landscaped slopes shall be maintained in a vegetated state after project completion using drought-tolerant vegetation requiring infrequent drip irrigation. No pressurized irrigations shall be placed at or near the tops of graded slopes.									
4.4-3: Some residences would be constructed near slopes with colluvial materials. These slopes, and slopes constructed as part of the project, could become unstable and potentially result in on- or off-site damage.	Less than Significant with Mitigation	**Mitigation Measure 4.4-3a (applies to all alternative access scenarios):** Debris catchment walls shall be constructed along the rear sides of the building pads on Lots 14, 15, and 22 through 25 where they border adjacent slopes. The walls shall be a minimum of 5 feet high and designed in accordance with the recommendations of the geotechnical exploration in regards to retaining walls. Walls may not be required if pad grading provides sufficient space via rear yard slopes or retaining walls. The final design of the walls or catchment area shall be reviewed by ENGEO when the detailed project plans are prepared. Proper access to the catchment areas shall be provided and all debris catchment walls or designated catchment areas shall be periodically maintained by removing and disposing of accumulated slope detritus. **Mitigation Measure 4.4-3b (applies to all alternative access scenarios):** Debris catchment measures shall be constructed along Lots 5 and 25 which are located at the mouths of existing drainage courses. The catchment measures shall include a minimum 5-foot berm placed across the mouth of the drainage with clog-resistant surface drainage inlets provided. The final dimensions, placement, and design shall be determined in the detailed project plans. **Mitigation Measure 4.4-3c (applies to all alternative access scenarios):** The final corrective grading plans shall show detailed locations of keyways, subdrains, debris benches, and subexcavation areas. The sequence of grading issues, such as placement of various cut materials in specific locations, should also be evaluated during review of the final 40-scale grading plans. **Mitigation Measure 4.4-3d (applies to all alternative access scenarios):** The Geotechnical Engineer or qualified representative should be present during all phases of grading operations to observe demolition, site preparation, grading operations, and subdrain placement. After grading operations commence, geologic observations of cut areas should be made at frequent intervals so	<	=	=	=	=	=	=	=	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
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		that revised geologic recommendations can be incorporated into updated grading plans as grading proceeds. During slope grading, all cut slopes should be viewed by the Engineering Geologist for adverse bedding, seepage, or bedrock conditions that may affect slope stability. In the event that adverse conditions are identified, overexcavation and reconstruction of the slopes may be required. Track rolling to compact slope faces is not sufficient. All fill slopes should be overbuilt at least two feet and cut back to design grades. **Mitigation Measure 4.4-3e (applies to all alternative access scenarios):** Keyways equipped with a subsurface drainage system shall be constructed. Each keyway shall be keyed into firm natural materials unaffected by shrinkage cracks. The keyway shall be filled with materials derived from the Livermore Gravels compacted to 95 percent relative compaction for non-expansive materials and 90 percent relative compaction for expansive materials. The required depth of the keyways shall be determined in the field by the geotechnical engineer during grading. Fill above the keyways shall be benched into firm, competent soil or bedrock and drained as appropriate. Unless otherwise recommended by the Geotechnical Engineer, benches shall be constructed at vertical intervals of not less than five feet. **Mitigation Measure 4.4-3f (applies to all alternative access scenarios):** Subsurface drainage systems should be installed in all key ways, swales or natural drainage areas, and landslide removal areas in accordance with the recommendations of the geotechnical exploration. Depending on the actual conditions encountered during grading, similar subsurface drainage facilities may be recommended within existing stock ponds, springs, low-lying areas, or at lots where wet conditions are encountered during excavation. In addition, new sources of seepage may be created by a combination of modified topography, future irrigation practices, and potential utility leakage. If discovered, these conditions should be brought to the attention of the Geotechnical Engineer so that remedial actions may be initiated, if necessary. **Mitigation Measure 4.4-3g (applies to all alternative access scenarios):** Structural retaining walls shall be constructed in accordance with the recommendations of the geotechnical									

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
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		exploration and provided with drainage facilities to prevent the buildup of hydrostatic pressures behind the walls. **Mitigation Measure 4.4-3h (applies to all alternative access scenarios):** Where steeper slopes greater than 3:1 are desired, supplemental slope stabilization measures such as geogrid enforcement and/or the use of select fill shall be employed. Drainage benches shall also be provided at a 30-foot minimum intervals, and construction shall follow the structural setbacks of the CBC. Accordingly, structures shall be: (1) set back from the top of the slope by a minimum of one-third of the slope height or a maximum of 40 feet; and (2) set back from the bottom of the slope by a minimum of one-half of the slope height or a maximum of 15 feet. Alternative setbacks may be addressed on a per lot and foundation design basis.									
4.4-4: Expansive soils and bedrock materials are present within project boundaries and construction on expansive soil could cause foundation and other structural failures, particularly at lots traversed by a cut/fill transition.	Less than Significant with Mitigation	**Mitigation Measure 4.4-4 (applies to all alternative access scenarios):** Cut lots shall be overexcavated 2 feet, scarified 12 inches, and recompacted so as to provide a zone of at least 3 feet of reworked and compacted soil. Additionally, cut/fill transition lots should be overexcavated so as to provide a minimum of 3 feet of a uniform thickness of engineered fill within the entire foundation area. In addition, exposed soils shall be kept moist by watering for several days before placement of concrete.	<	=	=	=	=	=	=	=	<
4.4-5: Compressible soils and non-engineered fills are present within project boundaries and construction on these soils could cause foundation and other structural failures.	Less than Significant with Mitigation	**Mitigation Measure 4.4-5 (applies to all alternative access scenarios):** All existing non-engineered fill, vegetation, and soft or compressible soils and colluvium in existing canyons, creeks, stock ponds, drainages, and other areas to be graded shall be removed as necessary for project requirements. The depth of removal shall be determined by the geotechnical engineer in the field at the time of grading. Evaluation of unsuitable deposits shall be performed during grading by sampling and laboratory analysis.	<	=	=	=	=	=	=	=	<
4.4-6: Fill placed during construction could settle following construction and cause structural damage.	Less than Significant with Mitigation	**Mitigation Measure 4.4-6a (applies to all alternative access scenarios):** The differential fill thickness across a lot should be less than 15 feet. Lots requiring local subexcavation of soil and replacement with engineered fill to achieve this limit should be	<	=	=	=	=	=	=	=	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
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		identified on the final corrective action grading plan. **Mitigation Measure 4.4-6b (applies to all alternative access scenarios):** Following clearing and stripping, all areas to receive fill, slabs-on-grade, or pavement should be scarified to a depth of at least 12 inches, moisture conditioned, and compacted to the requirements for engineered fill. **Mitigation Measure 4.4-6c (applies to all alternative access scenarios):** Site soils and bedrock used for engineered fill shall have organic content of less than 3 percent. Rocks greater than 6-inches in size shall not be placed at depths greater than 10 feet from finished grade. Rocks greater than 18 inches in size should be broken down such that their maximum dimension is less than 12 to 18-inches, or placed in non-structural fills below slopes or under one of the proposed detention basins. Alternatively, these rocks could be used in landscaping and/or creek restoration projects. **Mitigation Measure 4.4-6d (applies to all alternative access scenarios):** Engineered fills shall be compacted to the specifications stated in the geotechnical framework. Over compaction of expansive materials (with a plasticity index of greater than 12) should be avoided within the upper five feet of building areas. All fills shall be placed in lifts not exceeding 12 inches, or the depth of penetration of the compaction equipment used, whichever is less.									
Hydrology and Water Quality											
4.5-1: The proposed project could incrementally increase impervious surfaces and redirect surface water runoff that would otherwise recharge the underlying groundwater system, but would not lead to substantial groundwater depletion.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.5-2: The proposed project would involve grading that could cause erosion and associated sedimentation of surface	Less than Significant with	**Mitigation Measure 4.5-3 (applies to all alternative access scenarios):** See Mitigation Measures 4.4-2a through 4.4-2c in Section 4.4, Geology, Soils, and Seismicity.	<	=	>	>	>	>	>	>	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
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water features, and a release of hazardous materials could occur during construction, potentially resulting in water quality degradation.	Mitigation										
4.5-3: The proposed project would involve grading and construction of new impervious surfaces, but would not alter the existing drainage patterns in a manner that would increase erosion or flooding on or off-site.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.5-4: The proposed project would incrementally increase surface runoff from additional impervious surfaces and provide and additional source of polluted runoff, but would not exceed the capacity of the storm drain system.	Less than Significant with Mitigation	**Mitigation Measure 4.5-4 (applies to all alternative access scenarios):** The project sponsor, working with the Alameda Countywide Clean Water Program, shall implement a program to educate buyers about the potential water quality effects of stormwater pollution and effective measures to prevent the generation of stormwater pollutants from residential land uses. At a minimum, the program shall address stormwater pollutants such as hazardous materials commonly used in household applications; spilled oil, fuel, and other fluids such as antifreeze from vehicles; construction debris; landscape chemicals such as pesticides, herbicides, and copper-based algaecides; used packing materials; paint products; trash and litter; excess irrigation; and car washing. Educational materials developed under this program shall identify alternative products that are more environmentally friendly as well as methods to control stormwater pollutants at their source. The materials shall also be consistent with materials available from the Alameda Countywide Clean Water Program and shall be provided to the buyer at the time of purchase.	<	=	=	=	=	=	=	=	<
Traffic and Circulation											
4.6-1: During project construction, the project would result in temporary increases in traffic on local streets during	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
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non-peak periods.											
4.6-2: The project would result in long-term traffic increases at local intersections and incrementally degrade level of service operation at these intersections.	Less than Significant with Mitigation	**Mitigation Measure 4.6-2 (applies to all alternative access scenarios):** The project's impact on study intersections would be mitigated by the payment of traffic impact fees, which is proposed by the project applicant. The need to signalize the Sunol Boulevard/I-680 Northbound Ramp and Sunol Boulevard/I-680 Southbound Ramp intersections have been identified in the City's General Plan as future planned improvements to which the project would contribute through the payment of traffic impact fees. With signalization, these intersections would operate at acceptable service levels, reducing this impact to a less-than-significant level.	=	=	=	=	=	=	=	=	<
4.6-3: The project would result in long-term traffic increases on local neighborhood streets providing site access.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	>	>	>	>	>	>	=
4.6-4: Project development would not significantly increase traffic safety in the project vicinity.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.6-5: The project would extend the existing Lund Ranch Road cul-de-sac by an additional 1,600 feet, but would not adversely affect emergency access to the site or site vicinity.	Less than Significant	None Required (applies to all alternative access scenarios)	<	<	<	<	<	<	<	<	=
4.6-6: The project would not substantially affect regional transit facilities, or local pedestrian and bicycle facilities, and proposed trail connections would improve pedestrian access	Less than Significant; Beneficial	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.6-7: The project would contribute to cumulative degradation of service level operation on local streets and at study	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

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			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
intersections, but the project's contribution would be less than cumulatively considerable.											
Noise											
4.7-1: Project construction would result in temporary short-term noise increases due to the operation of heavy equipment and expose people to noise levels in excess of standards established by the City of Pleasanton Noise Ordinance.	Less than Significant with Mitigation	**Mitigation Measure 4.7-1 (applies to all alternative access scenarios):** Project contractors will be required to comply with Pleasanton Municipal Code (Section 9.04.100), which would restrict noise generation by construction to the hours of 8:00 a.m. and 8:00 p.m. on Mondays through Saturdays. All construction equipment shall generate noise levels no greater than 83 dBA (Leq) at 25 feet. Feasible noise controls that could be implemented to reduce equipment noise levels include the following: ▪ Implement best available noise control techniques such as mufflers, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds. ▪ Equipment used for project construction shall be hydraulically- or electrically-powered impact tools (e.g., jackhammers, pavement breakers, and rock drills) wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler should lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this should achieve a reduction of 5 dBA. Quieter procedures such as drilling rather than impact equipment shall be used whenever feasible. ▪ Stationary noise sources shall be located as far from residential receptors as possible. If they must be located near residential receptors, they should be adequately muffled and enclosed within temporary sheds. ▪ Limit continuous operation of heavy equipment near sensitive receptors. ▪ The name and phone number of the designated project liaison shall be posted at the project site boundary so that the public can	<	=	=	=	=	=	=	=	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
		contact the liaison if noise disturbance occurs. This liaison shall immediately take steps to resolve any complaints received, including modifying construction practices as necessary to address the noise complaint.									
4.7-2: Project construction would increase construction-related traffic on local streets for the duration of project construction.	Less than Significant with Mitigation	**Mitigation Measure 4.7-2 (applies to all alternative access scenarios):** To minimize the number of residents exposed to temporary increases in truck traffic noise, construction-related trucks shall be required to use Independence Drive to Bernal Avenue to access Sunol Boulevard and the I-680 freeway. In addition, haul and delivery truck operations shall be limited to the daytime weekday hours (7:00 a.m. to 7:00 p.m.) to minimize noise disturbance.	<	=	=	=	=	=	=	=	<
4.7-3: Construction activities would not result in excessive groundborne vibration at the closest adjacent residences.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.7-4: Operation of proposed residences would result in noise increases from residential activities on-site as well as project-related traffic increases on local residential streets.	Less than Significant with Mitigation	**Mitigation Measure 4.7-4 (applies to all alternative access scenarios except Scenarios 5 and 7):** The City shall require the project applicant to reduce the project's estimated 5.6 dBA increase on Lund Ranch Road to 4 dBA or less. Such a reduction could be achieved by either: (a) reducing the number of residential units to 29 in order to sufficiently reduce noise generated by project-related traffic volumes; or (b) requiring resurfacing Lund Ranch Road (Independence Drive to project site boundary) and Independence Drive (from Lund Ranch Road to Hopkins Way) with rubberized asphalt to be installed, at discretion of the City Engineer, prior to project completion.	<	>	<	<	<	>	<	<	<
4.7-5: The proposed residences would be located in a noise environment that is normally acceptable for residential uses.	Less than Significant	None Required (applies to all alternative access scenarios)	=	=	=	=	=	=	=	=	=
4.7-6: The project's contribution of construction-related and operational traffic noise increases on the local street	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
network would not be cumulatively considerable since traffic generated by approved and pending projects would not affect the same local street network.											
Air Quality											
4.8-1: Construction activities associated with proposed construction would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions.	Less than Significant with Mitigation	**Mitigation Measure 4.8-1 (applies to all alternative access scenarios):** To limit the project's construction-related dust and criteria pollutant emissions, the following BAAQMD-recommended Basic Construction Mitigation Measures shall be included in the contractor specifications for the proposed project: a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. d. All vehicle speeds on unpaved roads shall be limited to 15 mph. e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. *h.* A publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints shall be	<	=	=	=	=	=	=	=	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
		posted at the site. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable *regulations.* **Mitigation Measure 4.8-2 (applies to all alternative access scenarios):** To reduce the project's construction-related NO_X emissions, the following provisions shall be included in the contractor specifications for the proposed project: a. To reduce NO_X during construction, all excavators, dozers, scrapers, tractors, loaders, and backhoes used for project construction shall be equipped with Tier 3-rated engines. Alternatively, the number of pieces of diesel-powered equipment operating simultaneously could be limited in order to achieve the same level of NO_X reduction. b. All contractors shall use equipment that meets the CARB's most recent certification standard for off-road heavy-duty diesel engines for a given model year engine.									
4.8-2: Project construction would not expose sensitive receptors to substantial pollutant concentrations.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.8-3: Construction of the proposed project would have the potential to generate odors.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.8-4: Project operations would not violate air quality standards or contribute substantially to an existing air quality violation.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.8-5: Project operations would not expose sensitive receptors to substantial pollutant concentrations.	No Impact	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.8-6: Project operations would not create	No Impact	None Required	<	=	=	=	=	=	=	=	=

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
objectionable odors affecting a substantial number of people.		(applies to all alternative access scenarios)									
4.8-7: Implementation of the proposed project would not conflict with or obstruct implementation of the 2010 Clean Air Plan.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.8-8: The project would contribute to cumulative increases in criteria pollutants during project construction and operation.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
Greenhouse Gas Emissions											
4.9-1: Project construction would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.9-2: Project operations would generate GHG emissions, but not at levels that would result in a significant impact on the environment.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.9-3: Project operations would not conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.9-4: The proposed project would not result in a cumulatively considerable contribution to GHG emissions.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
Cultural Resources											
4.10-1: Construction activities proposed by the proposed project could disturb unknown subsurface cultural resources.	Less than Significant with Mitigation	**Mitigation Measure 4.10-1 (applies to all alternative access scenarios):** The following mitigation measures shall be required to reduce potential cultural resources impacts to a less-than-significant level: a. A program of archaeological monitoring should be undertaken for all construction related earthmoving activities in the vicinity of the ranch complex and within 100 feet of the drainage as it exits the compound and flows west out of the Lund Ranch project area. The duration of the monitoring program should be determined by the project archaeologist in conjunction with the project sponsor and the Pleasanton Planning Department. In the event of any discovery, work should be stopped within 50 feet of any discovery until a proposal for the evaluation of the resource as required by CEQA guidelines has been submitted to the lead agency for approval. If evaluation of the resource through a program of hand excavation demonstrates that the resource is eligible for inclusion on the California Register of Historic Resources, a proposal for mitigation of impacts to the resource should be submitted to the lead agency for approval before work is allowed to recommence in the area of recorded archaeological deposit. b. In the event that historic archaeological deposits are uncovered during site monitoring, work should be halted within 20 feet of any discovery until the deposit has been evaluated for potential significance through a program of hand excavation if necessary. If it is determined that the deposit qualifies for inclusion on the California Register, a plan for mitigation of impacts to the resource should be submitted to the lead agency for approval before any actual mitigation efforts are undertaken prior to the continuation of grading operations. Mitigation can include the recording in situ and/or removal of additional historical materials by an archaeological team for later analysis combined with continued monitoring of earthmoving activities in the vicinity of any discovery.	<	=	=	=	=	=	=	=	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
4.10-2: The project proposes to remove the entire ranch complex and most of the vegetation associated with it.	Less than Significant with Mitigation	**Mitigation Measure 4.10-2 (applies to all alternative access scenarios):** The following mitigation measures shall be undertaken prior to the issuance of a demolition permit for the ranch complex: Historical site records shall be prepared which include the description of all existing elements of the ranch complex along with photo documentation of them, including: (1) all structures and/or remains of structures mentioned in the 1990 and 1999 report and others; (2) the Quonset hut located up creek from the main house; (3) all other historical features mentioned in the 1990, 1999, and 2003 reports, such as the landscaping elements, piles of historic debris, and the variety of vehicles now abandoned there. Some materials and/or items, such as the horse drawn wagon, may be of interest to local historical societies or groups. An attempt should be made to consult with organizations who may have an interest in materials for re-use before they are cleared from the construction site.	<	=	=	=	=	=	=	=	<
Public Services											
4.11-1: Construction of a residential development on the project site would require police protection services for future residents, visitors, and property improvements.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.11-2: Construction of a residential development on the project site would require fire protection services for future residents, visitors, and property improvements.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.11-3: The proposed residential project would generate new students and contribute to the cumulative increase in	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
demand for educational services within the service area of the Pleasanton Unified School District.											
4.11-4: The proposed project would generate new residents and contribute to the increase in demand for recreational services within the city.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
4.11-5: The proposed project would generate new residents and contribute to the cumulative increase in demand for public safety and recreational services within the city.	Less than Significant	None Required (applies to all alternative access scenarios)	<	=	=	=	=	=	=	=	=
Hazards and Hazardous Materials											
4.12-1: The proposed project would result in increased generation of household hazardous wastes that could cause human health and environmental effects if improperly disposed.	Less than Significant with Mitigation	**Mitigation Measure 4.12-1 (applies to all alternative access scenarios):** The project sponsor, working with the City of Pleasanton and Alameda County Household Hazardous Waste Program, shall implement a Buyer Education Program for Household Hazardous Waste, developing materials to educate buyers about the identification of household hazardous wastes, appropriate disposal methods, and available drop off facilities. At a minimum, the materials shall provide a list of example household hazardous wastes, discuss the environmental impacts of improper disposal, and provide a list of available drop off facilities. The educational materials shall be provided to the buyer at the time of purchase.	<	=	=	=	=	=	=	=	<
4.12-2: Excavation for the proposed project could potentially encounter previously identified soil contamination, potentially exposing workers and the public to hazardous materials, or resulting in a release to the	Less than Significant with Mitigation	**Mitigation Measure 4.12-2 (applies to all alternative access scenarios):** Contingency Plan. The project sponsor shall require the construction contractor(s) to observe for previously unidentified hazardous materials and have a contingency plan for sampling and analysis of potential hazardous materials in soil. If any hazardous materials are identified, the contractor(s) shall be required to prepare a Health and Safety Plan, conduct sampling to assess the chemicals	<	=	=	=	=	=	=	=	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
environment during construction.		present, and identify appropriate disposal methods. Evidence of potential contamination includes soil discoloration, suspicious odors, the presence of USTs, or the presence of buried building materials. The project sponsor shall also be required to notify the regulatory agencies if the concentration of any chemical exceeds its respective screening level. The assigned lead agency shall oversee all aspects of the site investigation and remedial action and determine the adequacy of the site investigation and remediation activities at the site.									
4.12-3: Demolition of the existing ranch structures at the project site could potentially expose workers and the public to hazardous building materials including asbestos-containing materials, lead-based paint, PCBs, DEHP, and mercury, or result in a release of these materials to the environment during construction.	Less than Significant with Mitigation	**Mitigation Measure 4.12-3 (applies to all alternative access scenarios):** Prior to demolition of the on-site buildings, the project sponsor shall ensure that a Hazardous Building Materials Survey is completed by a Registered Environmental Assessor or a registered engineer to confirm the absence or presence of asbestos-containing materials and lead-based paint in structures to be demolished. This survey shall be completed prior to any demolition activities associated with the project. Adequate abatement practices, such as containment and/or removal for all asbestos-containing materials and lead-based paint, shall be implemented in accordance with applicable laws prior to demolition. Any PCB-containing equipment, fluorescent light tubes containing mercury vapors, and fluorescent light ballasts containing DEHP shall also be removed and legally disposed of.		<	=	=	=	=	=	=	=	<
4.12-4: Project construction activities would result in a temporary increase in fire risks at the site.	Less than Significant with Mitigation	**Mitigation Measure 4.12-4a (applies to all alternative access scenarios):** During periods of high fire danger or during red flag conditions, all construction activities that could create sparks shall cease. All mechanical equipment shall be equipped with approved spark arrestors and comply with California Public Resources Code (PRC) Sections 4431, 4435, 4442 and 4437 to limit potential for ignition of incidental fires. **Mitigation Measure 4.12-4b (applies to all alternative access scenarios):** Comply with the WUIP, which requires that vegetation be managed, that hydrants be operational, and that an approved Fire Prevention Plan be completed prior to construction. The Fire Prevention Plan requires on-site fire suppression resources to include shovel, water pump, fire extinguisher, and two-way radio or communications for fire reporting.		<	=	=	=	=	=	=	=	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
4.12-5: Development and occupation of project homes and maintenance of the project's open space areas would increase fire risks at the project site.	Less than Significant with Mitigation	**Mitigation Measure 4.12-5a (applies to all alternative access scenarios):** During periods of high fire danger or during red flag conditions, operation of equipment with small motors for vegetation/landscape maintenance shall be prohibited. All mechanical equipment shall have approved spark arrestors and comply with California Public Resources Code (PRC) Sections 4431, 4435, 4442 and 4437 to limit potential for ignition of incidental fires. **Mitigation Measure 4.12-5b (applies to all alternative access scenarios):** The project sponsor shall prepare a Fire Safety Awareness Program to address fire safe behaviors and fuel management. The project would include the disclosure of the Program's requirements as part of the CC&Rs for the project development. Alternatively, in consultation with the City, the proposed project could include the formation of an Open Space Maintenance District to ensure the implementation of routine maintenance measures for fire protection purposes. **Mitigation Measure 4.12-5c (applies to all alternative access scenarios):** The project sponsor shall incorporate design measures and implement fuel management measures listed in the Wildland Urban Interface Plan (WUIP is included as Appendix F). Vegetation management measures included in this Plan shall continue to be implemented by the Homeowners' Association. This plan presents measures to: make structures less ignition-prone; make vegetation burn with less intensity; educate and prepare residents regarding wildland fire; properly manage fuels on private lots and in the periphery of the open space; and ensure that fuel management inspections are conducted annually. The Homeowners' Association shall review and update the WUIP every five years to ensure that it reflects any updates to the City's Fire and Building Codes.		<	=	=	=	=	=	=	=	<
Energy Conservation											
4.14-1: Demolition of existing buildings and construction of the new residential uses would not encourage	Less than Significant with	**Mitigation Measure 4.14-1 (applies to all alternative access scenarios):** See Mitigation Measure 4.8-1 in Section 4.8, Air Quality.		<	=	=	=	=	=	=	<

TABLE 5-3 (CONTINUED)

SUMMARY COMPARISON OF PROJECT ALTERNATIVES

Potential Impact	Proposed Project Impact Significance	Mitigation Measure	Impact Similar but Greater than (>), Less than (<), Less than or Equal to (≤), or Same (=) as Proposed Project								
			No Project	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Mitigated Project
activities that use fuel, water, or energy in a wasteful, inefficient, or unnecessary manner.	Mitigation										
4.14-2: Operation of residences would not encourage activities that use fuel, water, or energy in a wasteful, inefficient, or unnecessary manner.	Less than Significant with Mitigation	**Mitigation Measure 4.14-2 (applies to all alternative access scenarios):** Prior to issuance of any Grading or Demolition Permit, the City Engineer and the Chief Building Official shall confirm that the building plans and specifications incorporate the following features: a. Roofs that are strong enough and have roof truss spacing to hold photovoltaic panels, where feasible and cost effective, in compliance with Program 7.5 of the Energy Element of the Pleasanton General Plan 2005 - 2025. b. Solar water heating and/or photovoltaic-ready roofs in new construction, i.e., roofs with wiring installed for a roof-mounted photovoltaic system, where feasible, in compliance with Program 7.5 of the Energy Element of the *Pleasanton General Plan 2005 - 2025*.		<	=	=	=	=	=	=	=	<

NOTES: Scenarios are defined as:
1. Proposed Project access via Lund Ranch Road
2. Lund Ranch Road + Middleton Place (No connection to Livingston Way)
3. Lund Ranch Road + Sunset Creek Lane
4. Lund Ranch Road + Middleton Place (No connection to Livingston Way) + Sunset Creek Lane
5. Lund Ranch Road + Middleton Place (No connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way.
6. Middleton Place (No connection to Livingston Way) + Sunset Creek Lane (No connection to Lund Ranch Road)
7. Middleton Place (No connection to Livingston Way) + Sycamore Creek Way (No connection to Lund Ranch Road)
8. Middleton Place (No connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way (No connection to Lund Ranch Road)
9. Mitigated Project is the Proposed Project but with Listed Mitigation Measures

CHAPTER 6 CEQA CONSIDERATIONS

6.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

An Initial Study was prepared for the proposed project and is included in Appendix A of this report. The Initial Study determined that certain impacts associated with the proposed project would have a less-than-significant effect on the environment. These less-than-significant impacts are discussed in detail in the Initial Study and summarized briefly below:

- **Agriculture and Forestry Resources:** The project site is a cattle and livestock ranch. The site is located adjacent to the Foley cattle ranch to the east and the Sportorno cattle ranch to the south. The project proposal would dedicate 172.1 (88%) of the 195-acre project site to the city for permanent open space and recreational trails, and lands contiguous to these existing adjacent ranches would remain undeveloped. Therefore, the project is not expected to conflict existing agricultural operations in the project vicinity. While project development would result in significant tree removal impacts, the project's proposed retention of 88% of the site as open space would retain a significant proportion of the site's overall forest land resource.

- **Mineral Resources:** The project site is not located in an area that is identified in the General Plan as having mineral resources. Aggregate materials are being mined well to the east of the project site and therefore, therefore, there would be no impact on mineral resources as a result of project implementation.

- **Population and Housing:** The project would add 50 residential units to the region's housing supply. Such an addition would increase the city's population by approximately 142 residents (representing 0.2% of the city's General Plan buildout population for 2025). Since development of 50 units on this site is included in the General Plan and accounted for in the General Plan Buildout population, the project's population increase is not expected to result in any new impacts related to population growth.

- **Utilities:** Water distribution and wastewater collection lines, storm drain facilities, as well as electricity, gas, and telephone/cable lines have been extended to the project's western boundary as part of existing residential development to the west. These utilities would be extended onto the site from Lund Ranch Road and are available to serve the proposed development on this site. All on-site infrastructure would be installed by the developer, subject to City standards.

6.2 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

All significant and potentially significant impacts that are identified in this EIR for the proposed project would be mitigated to less-than-significant levels by mitigation measures specified in this EIR. Therefore, the project would not result in any significant unavoidable adverse impacts.

6.3 GROWTH-INDUCING IMPACTS

As required by Section 15126.2 (d), an EIR must discuss ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. The EIR must also discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or precedents that directly or indirectly encourage additional growth.

In general, a project may foster growth in a geographic area if the project removes an impediment to growth (e.g., the establishment of an essential public service, the provision of new access to an area, a change in zoning or general plan approval); or economic expansion in response to the project (e.g., changes in revenue base, employment expansion etc.). These circumstances are further described below:

- Elimination of Obstacles to Growth: This refers to the extent to which a proposed project removes infrastructure limitations or provides infrastructure capacity, or removes regulatory constraints that could result in growth unforeseen at the time of project approval.

- Economic Effects: This refers to the extent to which a proposed project could cause increased activity in the local or regional economy. Economic effects can include such effects as the Multiplier Effect. A "multiplier" is an economic term used to describe inter-relationships among various sectors of the economy. The multiplier effect provides a quantitative description of the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect acknowledges that the on-site employment and population growth of each project is not the complete picture of growth caused by the project.

With proposed addition of 50 residential units, the proposed project would contribute to growth in the local population. The proposed 50-unit project would increase the city's population by approximately 142 residents. This added population would represent 0.2% of the city's General Plan buildout population for 2025. Since development of 50 units on this site is included in the General Plan and accounted for in the General Plan Buildout population, the project would be part of the city's planned growth and not considered to be growth-inducing.

The project would, however, extend Lund Ranch Road and utilities onto the site. Road and infrastructure improvements would not extend to any undeveloped properties and thereby, not induce new development. The proposed residential and open space uses occur within the boundary of lands designated for urban development by the General Plan and since the Urban Growth Boundary is located the project's southern and eastern boundary, proposed development of this site would not facilitate additional future growth in this area. In addition, the proposed development of 50 residential units would be subject to the City's Growth Management Ordinance and this ordinance would ensure that growth within the city occurs at a predictable rate.

6.4 CUMULATIVE IMPACTS

CEQA Guidelines Section 15130 require the analysis of cumulative impacts that may be associated with the proposed project when they are significant. According to CEQA Guidelines Section 15355, "Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Project-specific impacts which are considered individually minor may be significant when combined with the environmental effects of other projects; significant cumulative impacts must be addressed, but not necessarily in "as great detail" as the discussion of project-related impacts.

The CEQA Guidelines provide that a lead agency may describe the cumulative environment by either a listing of pending, proposed, or reasonably anticipated projects, or a summary of projections contained in an adopted general plan or a related planning document that describes area-wide or regional cumulative conditions. This analysis follows the former, list method. Projects located within the project area and within the City of Pleasanton that have been approved but not yet constructed or constructed but not yet fully occupied are listed and located in Appendix F.

No cumulative increases in construction-related on-site noise is expected to occur since none of the approved or pending projects (see list and map of projects in Appendix F) is located in the immediate project vicinity nor would they be served by the same access roads as project-related construction traffic. Therefore, the potential cumulative impacts that could result from development of the proposed project in conjunction with other projects identified in Appendix F would relate to traffic increases on local roadways, associated increases in traffic noise and air pollutant emissions, increases in greenhouse gas (GHG) emissions, and increased demand on public services.

The geographic scope of the cumulative analysis varies by resource area. For the cumulative traffic assessment, the geographic scope of the cumulative analysis is limited to the local roadways within the City because of the small size of the project (i.e., traffic increases on regional roadways from a project of this size would not be cumulatively considerable). The geographic scope of the cumulative air quality analysis is regional (San Francisco Bay Area Air Basin), while the geographic scope of the cumulative noise impact analysis is more localized and limited to the area in the vicinity of the project site or haul/delivery routes. For the evaluation of cumulative impacts on public services, the geographic scope is the city boundary. On the other hand, the geographic scope for GHG emissions is global.

Project implementation in conjunction with implementation of the cumulative projects listed and mapped in Appendix F would contribute to cumulative increases in traffic on local roadways, associated increases in noise, air pollutant, and GHG emissions, and increased demand on public services. Cumulative impacts are evaluated under Impacts 4.6-7 (traffic), 4.7-6 (noise), 4.8-8 (air quality), 4.9-4 (GHG emissions), and 4.11-5 (public services). These impact discussions indicate that the project's contribution to identified cumulative impacts would not be cumulatively considerable, which is a less-than-significant cumulative impact. Traffic generated by the proposed project would contribute to cumulative degradation of service level operation on local streets and at study intersections, but the project's contribution was determined to

be less than cumulatively considerable. The project's contribution of construction-related and operational traffic noise increases on the local street network was also determined to be less than cumulatively considerable since traffic generated by approved and pending projects would not affect the same local street network. The project would contribute to cumulative increases in criteria pollutants during project construction and operation, but these contributions were determined to not be cumulatively considerable. In addition, there are no other approved or pending projects located within 1,000 feet of the project site that would be under construction at the same time as the proposed project, and therefore, cumulative health risks would only consist of the project's contributions, which were determined to be less than significant. Therefore, the project's contribution to cumulative risk and hazard impacts would not be cumulatively considerable, a less-than-significant impact.

CHAPTER 7 LEAD AGENCY AND CONSULTANTS

LEAD AGENCY

CITY OF PLEASANTON

Brian Dolan, Director of Community Development
Marion Pavan, Associate Planner
Mike Tessano, City Traffic Engineer

CONSULTANTS

GEIER & GEIER CONSULTING, INC.

Frederick Geier	Project Manager
Valerie Chew Geier	Noise
Hans Giroux	Air Quality and GHGs
Sara Gerrick	Air Quality and GHGs
Mary Lucas McDonald	Geology and Hydrology
Manfred Geier	Graphics

SUBCONSULTANTS

William Kanemoto & Associates	Photosimulations
Mosaic Associates LLC	Biological Resources
Walter Levison, Consulting Arborist	Arboreal Resources
Fehr & Peers Associates, Inc.	Transportation and Traffic
Wildland Resources Management	Fire Hazards
Holman & Associates	Cultural Resources

APPLICANT'S TECHNICAL CONSULTANTS

In addition, the applicant retained the following consultant to complete technical studies used in this report:

ENGEO Incorporated	Geotechnical Exploration Update and Preliminary Stormwater and Hydromodification Management Plan
HortScience, Inc.	Tree Report
TJKM Transportation Consultants	Traffic Analysis

CHAPTER 8 APPENDICES

APPENDIX A

NOTICE OF PREPARATION,
INITIAL STUDY,
AND
PUBLIC COMMENTS RECEIVED

NOTICE OF PREPARATION

TO: Responsible and Trustee Agencies and Other Interested Parties

FROM: City of Pleasanton
Community Development Department
200 Old Bernal Avenue
Pleasanton, CA 94566-0802

Contact: Marion Pavan
Email: MPavan@cityofpleasantonca.gov
Phone: (925) 931-5610

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report (EIR)

The City of Pleasanton will be the lead agency in the preparation of an environmental impact report (EIR) for the Lund Ranch II Planned Unit Development. The City has determined that the proposed project, including mitigation measures to be incorporated into the project, would have a significant effect on the environment. Consequently, the City required the preparation of an EIR that focuses further analysis on those issues where there may be significant impacts on the resources of the community.

The City has identified specific environmental issues that require detailed and comprehensive evaluation in the EIR. Pursuant to *CEQA Guidelines* Section 15063(c)(3), the City anticipates that the EIR for the proposed project will be focused on specific environmental issues such as aesthetics, biological resources, cultural resources, geology and soils, hydrology and water quality, land use and planning, public services, transportation and circulation, air quality, and noise impacts.

The currently proposed Lund Ranch II residential development project is substantially reduced in scale from the previously proposed project design. As a result of the project's reduced scale and re-design, and the previous preliminary environmental review, the City of Pleasanton has determined that there is sufficient guidance for the completion of an EIR; an initial study is not warranted per *CEQA Guidelines* Section 15063(a).

The City is requesting comments on the proposed scope and content of the Draft EIR for the project. This notice is being sent to Responsible Agencies (agencies that have a role in approving or carrying out a project), Trustee Agencies (agencies with jurisdiction over natural resources), and other interested parties. The project description, location, and environmental issues that will be addressed in the Draft EIR are found on page 3 of this notice.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but must be received no later than 5:00 p.m. on June 1, 2012. Please send your response to Marion Pavan at the mailing address or email address shown above.

PROJECT TITLE: PUD-25, Lund Ranch II

PROJECT LOCATION:
The 195-acre project site is located at 1500 Lund Ranch Road in the City of Pleasanton. The site is at the south end of the City, southeast of the residential area that extends south of Bernal Avenue and east of Sunol Boulevard. Access to the proposed development would be from the extension of Lund Ranch Road. The site is bounded on the north by homes in the Kottinger Ranch Subdivision, on the west by existing homes of the Bonde Ranch, Sycamore Heights, and Ventana Hills subdivisions, and on the east and south by undeveloped, unincorporated lands (Foley and Spotorno properties, respectively). The project's location is indicated on Figure 1.

PROJECT SPONSOR: Greenbriar Homes Communities

PROJECT DESCRIPTION:
Greenbriar Homes Communities is requesting approval of a Planned Unit Development (PUD) development plan, which would allow construction of 50 residential units on the 195-acre Lund Ranch II property. Approval of the PUD application would allow construction of residential uses on approximately 23 acres. Proposed gross density for the site would be 0.26 dwelling units per acre. Residential units would be comprised of 48 single-family detached production homes on 10,000 square-foot minimum lots and two custom homes on 13.9 acres (Estate Lots). The proposed development plan is presented in Figure 2.

In addition, the project sponsor proposes to dedicate 161 acres of the project site to the City for permanent public open space. The project plans also include 11.1 acres of private open space as part of the two Estate Lots. The proposed project design includes the construction of Class B (graded earth) trails along a ridge on the southern perimeter of the site; a portion of the trail would use an existing paved road used for maintenance and emergency access to two municipal water tanks on the project site. A Class C trail would be developed through the open space area.

Proposed on-site streets would be public roads. The proposed residences would be served by the extension of Lund Ranch Road from its current terminus at the project site's western boundary. The proposed southeastward extension would be approximately 1,500 feet in length and generally follow the alignment of an existing unpaved road that provides access to the site. In addition to the Lund Ranch Road extension, the project plans specify construction of three cul-de-sacs (Courts A, B, and C) connecting and extending to the north of Lund Ranch Road. The proposed 48 single-family residences would be constructed along the south side of Lund Ranch Road an on both sides of the three cul-de-sac streets. The two planned estate lots are proposed for the end of the Lund Ranch Road extension and would be served by driveways connected to Lund Ranch Road and Court C.

The Pleasanton General Plan Land Use Map 2005 – 2025 designations for the project site are: Low Density Residential (Less than 2 dwelling units per gross acres); Rural Density Residential (1 dwelling unit per 5 gross acres); and Open Space – Public Health and Safety. The site is currently zoned PUD – LDR/OS (Planned Unit Development – Low Density Residential/Open Space) District.

PROBABLE ENVIRONMENTAL EFFECTS:
Per Section 15082(a)(1)(C) of the *CEQA Guidelines*, this NOP includes the following description of "probable environmental effects of the project."

Aesthetics and Visual Quality.
The proposed project will develop 50 new homes on the lower elevations of the Lund Ranch property. These residences would be visible from public spaces adjoining the project site. The EIR will include an evaluation of the project's potential effects on views from designated public locations; the assessment of these impacts will be based on photo simulations prepared as part of the visual analysis conducted for the project.

Air Quality.
During preliminary scoping, public input indicated concerns with increased air pollution due to project-related traffic increases on local neighborhood streets. As a result, this topic is included for evaluation in the EIR. Also the BAAQMD adopted new CEQA significance thresholds and updated their CEQA Guidelines; they updated their Guidelines again in May 2011. The BAAQMD established quantitative thresholds for both construction-related and operational criteria pollutant emissions, and also specified screening criteria for construction-related and operational emissions.

Biological Resources.
Previous biological surveys of the project area and site identified special-status plant and animal species that could be affected by project development. The project plans specify the removal of trees (possibly including heritage trees) and other vegetation, thereby affecting the habitat values of the project site. The EIR will include an extensive review of past biological studies as well as field review of current conditions and an assessment of the revised project's effects on biological resources.

Geology and Soils.
Extensive grading for residential lots, access roads, and infrastructure will be required for project development. Geotechnical studies have been prepared for the proposed development and the results of the most current analyses will be addressed in the EIR discussion of potential geologic and soils impacts from site development.

Greenhouse Gases.
Recent modifications to the CEQA Guidelines (March 2010) include the addition of two new significance criteria related to greenhouse gas (GHG) emissions and climate change. These criteria require GHG emissions to be estimated for a project and any conflicts with applicable GHG reduction plans, policies, or regulations. The EIR discussion will include an evaluation of potential GHG impacts from project development.

Hazards.
The proposed project places new residential uses in proximity to open space areas that are subject to potential wildfires. The EIR will address the project design relative to policies and requirements for vegetation management and control of wildland fire hazards.

Hydrology and Water Quality.
The proposed project will introduce new impervious surfaces to the Lund Ranch property and future runoff generated on-site will need to comply with current RWQCB requirements. The EIR will review stormwater management facilities proposed for the project and will identify local, regional, and state water quality control requirements for the project to ensure compliance with applicable water quality standards.

Noise.
The proposed project will generate both construction and operational noise at the project site. Noise level increases along local neighborhood streets will be estimated using available traffic volumes for local streets. Impact significance will be determined based on the City's Noise and Land Use Compatibility Guidelines (contained in the 2025 General Plan Noise Element) as well as noticeability criteria for noise level changes.

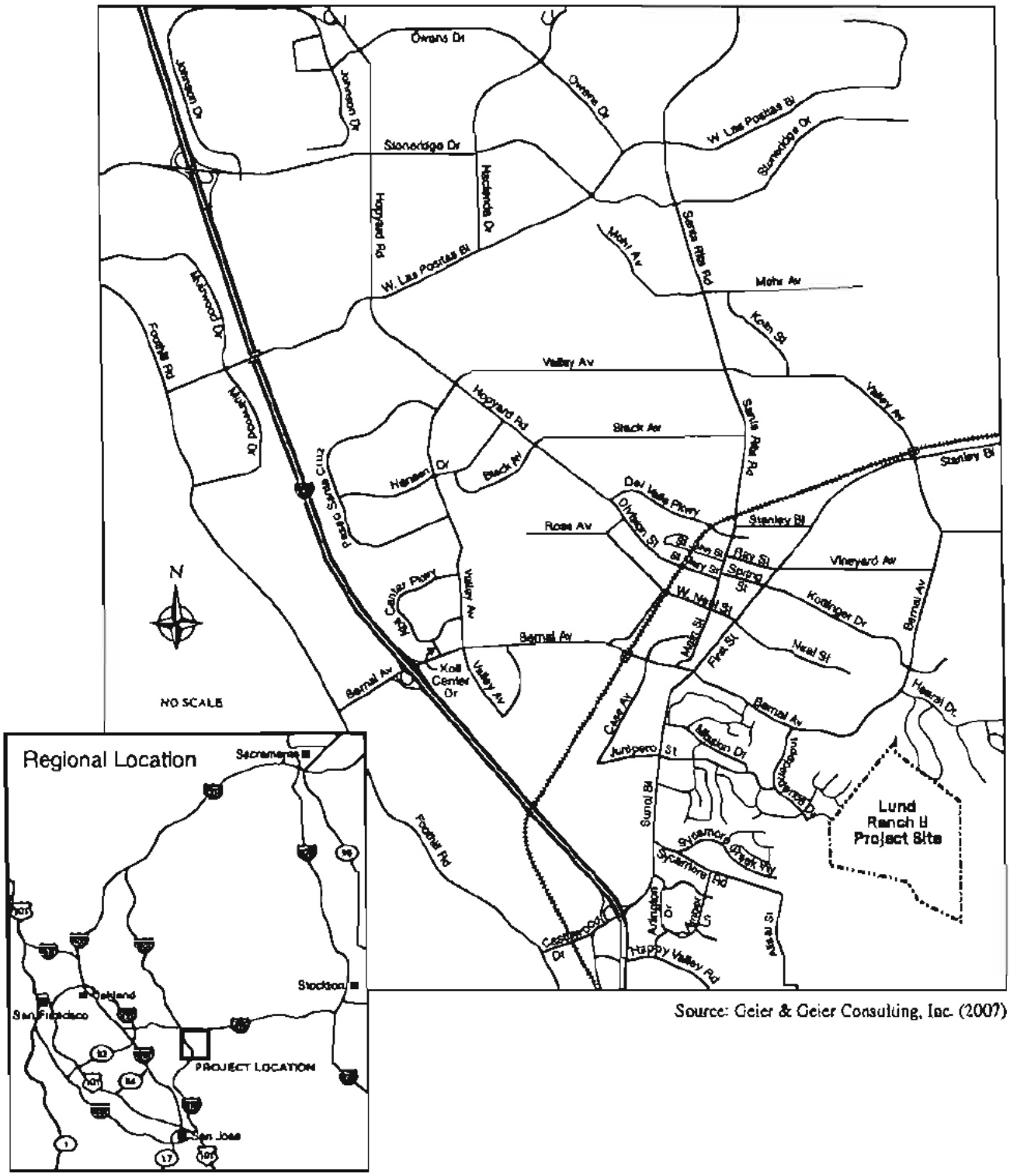
Public Services.
The proposed residential project would require additional public services for the site. While public services, e.g. public safety, are already available to the site, the change in land use could entail an expansion of such services. Also, certain services such as education will need to be extended to future residents on the site.

Transportation and Traffic.
The EIR would evaluate the project's traffic effects on the local transportation network, assess cumulative impacts of project development in conjunction with other developments proposed in the community, analyze plans for on-site circulation, evaluate construction traffic effects, and determine project impacts on transit and alternative transportation modes.

May 1, 2012

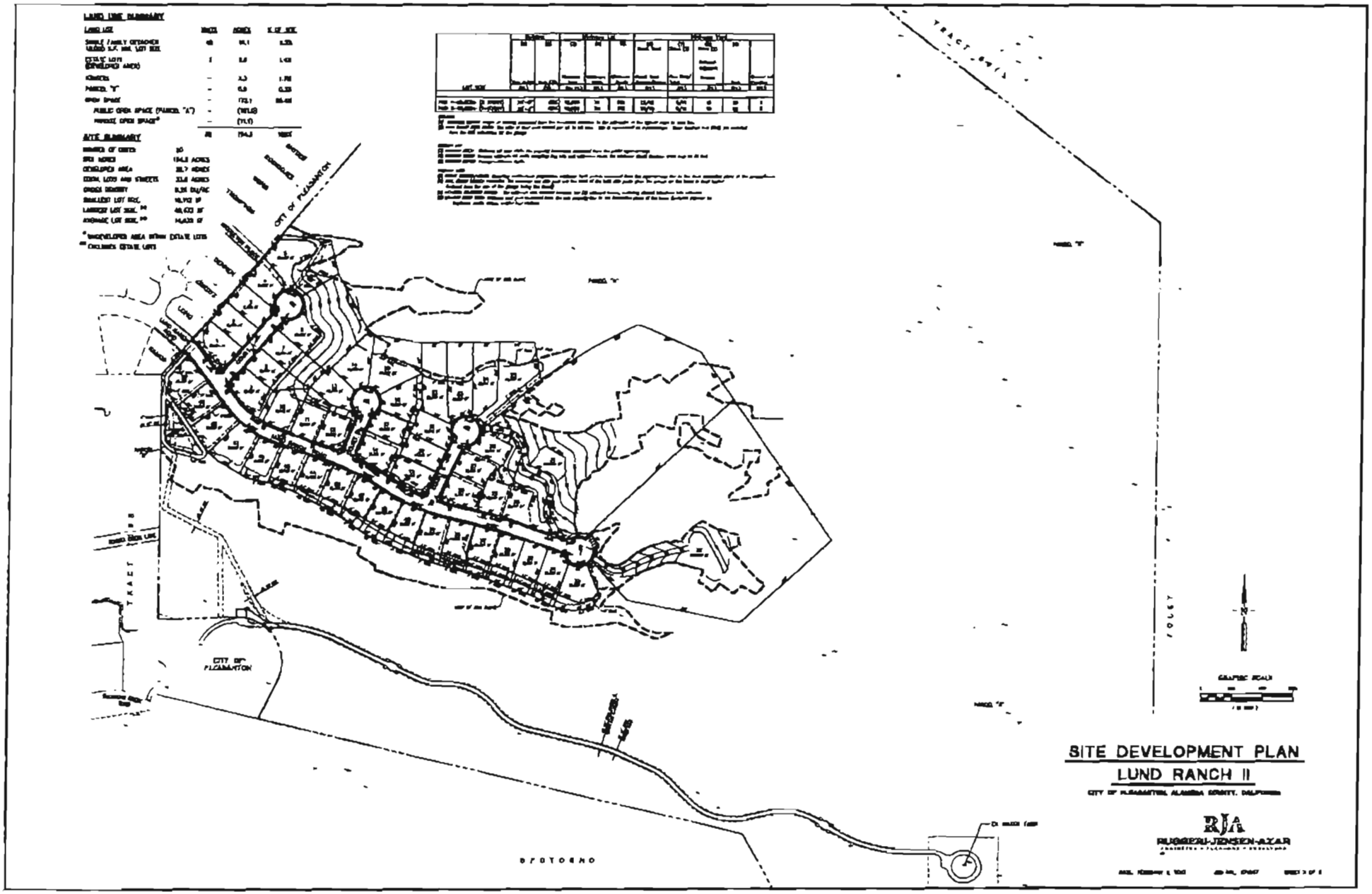
Brian Dolan
Director of the Department of Community Department

Attachments:
Figure 1: Project Location Map
Figure 2: Site Plan



Source: Geier & Geier Consulting, Inc. (2007)

GEIER & GEIER CONSULTING, INC.



Source: Ruggeri-Jensen-Azar (2012)

Initial Study and
Environmental Checklist Form
For PUD-25
Lund Ranch II

An Initial Study has been prepared under the direction of the City of Pleasanton Department of Planning and Community Development for the application by Greenbriar Homes for PUD Development Plan approval of a 150-unit single-family residential development on 80 acres of a 195-acre site. The remaining 115 acres would be developed with a 0.66-mile pedestrian trail and dedicated to the City for permanent open space. The subject property is located at 1500 Lund Ranch road. Zoning for the property is PUD-LDR (Low Density Residential) and OS (Open Space).

On the basis of the following Initial Study, which evaluated the environmental effects of the proposed project, the City of Pleasanton has found that the proposed project, including mitigation measures, which would be incorporated in the project, would have a significant effect on the environment. The City of Pleasanton has concluded, therefore, that it is necessary to prepare an Environmental Impact Report for the proposal.

1.0 BACKGROUND:

1.1	Name of Proposal:	PUD-25/ Lund Ranch II
1.2	Property Owner:	Greenbriar Fowler Road et al.
1.3	Date Checklist Submitted:	September 2, 2003
1.4	Project Proponent:	Kevin Ebrahimi Greenbriar Homes Communities 43160 Osgood Road Fremont, California 94539 (510) 497-8278
1.5	Person Preparing Checklist:	Heidi Kline, Associate Planner Department of Planning and Community Development P.O. Box 520 Pleasanton, California 94566-0802 (925) 931-5609

2.0 PROPOSED PROJECT:

The applicant, Greenbriar Homes, has requested PUD Development Plan approval of a 150-unit single family residential development on 80 acres of a 195-acre site. The remaining 115 acres is proposed to be given to the City as permanent open space with the developer providing the construction of an approximately 0.66 mile of pedestrian trails through the open space area. The property is a former cattle ranch located at 1500 Lund Ranch Road. Zoning for the property is PUD (Planed Unit Development) – LDR (Low Density Residential) and OS (Open Space).

The proposal would require the following City actions:

1. PUD development plan approval which would establish density, permitted and conditional uses, development standards for primary and secondary structures, grading plan, lotting and circulation pattern, utility and infrastructure design, and architectural house designs. During this review of the development plan, environmental mitigation measures would be incorporated into the project as design measures and/or revisions to the present proposal, and/or as conditions of approval implemented with successive City approvals, e.g. tentative map/ final subdivision maps, improvements plans, etc. and/ or as site-specific programs, e.g. wildland fire management plans, etc.

2. Tentative and Final Subdivision Maps and Improvement Plans.

Environmental review for each of the above-mentioned City actions would be administered with an Environmental Impact report in conformance with the requirements of the California Environmental Quality Act (CEQA).

3.0 POSSIBLE ENVIRONMENTAL IMPACTS:

3.01 Conformance of the Proposal with General Plan Policies:

The project site is designated in the Land Use Element of the Pleasanton General Plan as having 58.09 acres in the "Low Density Residential", 123.37 acres in "Rural Density Residential", and 13.39 acres in "Public Health and Safety" with a Wildlands overlay. Based on this acreage, the site would have a holding capacity, or General Plan midpoint, of 82 dwelling units for the site. If a sufficient public amenity is provided, the maximum number of units that could be built on this site is 139. The City has not historically considered the dedication of "unbuildable" hillside, or steeply-sloped areas as a sufficient public amenity to compensate for additional density over the General Plan midpoint. An additional 25% density bonus over the maximum number of units, or 34 units, is available for PUD-zoned properties which provide significant affordable housing.

The General Plan restricts development in areas with landslides, slope instability, and slopes of 25 percent or greater. Approximately half of the proposed development would be located on slopes of 25 percent or greater. In unstable areas, the City seeks to minimize grading of slopes for construction or slope stability repairs, limit grading only to where it is essential for development, and prohibit major grading of existing slopes over 25 percent. Adequate mitigation measures must be included to mitigate any potential hazards associated with development in unstable areas.

X		
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.02 Impact on Existing Uses (On- and Off-Site):

The project site is a cattle and livestock ranch. The site is located in an area surrounded by other residential and agricultural uses, including the Ventena Hills and Bonde Ranch subdivisions to the west, the Kottinger Ranch subdivision to the north, the Foley cattle ranch to the east, and the Sportorno cattle ranch to the south. The proposed residential development could have potential negative impact, resulting from traffic, views, tree removal, etc., on the existing residences in the immediate area, unless adequate mitigation measures are incorporated into the project.

X		
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.03 Geologic Impacts (Hazards, Change in Topography, Erosion, etc.):

A preliminary geological and geotechnical report was completed for the project by Kleinfelder and identified the following concerns. The site was found to be geologically complex with some potentially adverse conditions which will require mitigation. The significant considerations identified for consideration prior to development of the site include the stability of proposed cut and fill slopes, effects of the presence of colluvial material and numerous landslide areas, the effects of cut/fill transitions and differential fill thickness beneath building pads, the long-term compression of fills and underlying colluvial/alluvial material, localized areas of expansive soil, and the control of surface and subsurface drainage.

Topography: The site has rolling hills and areas of steep slopes. More than two-thirds of the site ranges between ten and forty percent in grade. This area has numerous seeps and springs with groundwater encountered at depths ranging from 3 to 15 ft. below the surface.

Grading: Grading would be necessary throughout the site to accommodate individual lot development and public improvements (streets, utilities, etc.) Cuts and fills are proposed up to 50 and 65 feet in maximum vertical height, respectively. Additional evaluation of these sloped areas may be necessary to determine whether the slope stability meets acceptable engineering standards.

Seismic Concerns: Although the site is not located within an Alquist-Priolo Zone, it is in a region likely to experience strong seismic shaking in the future. The Verona fault is located ½ mile southwest of the site and other major faults, including the Calaveras, Greenville, and Hayward faults, are nearby.

Landslides: A number of shallow and deep landslides have been identified on site which may require either buttressing or reengineering to minimize the potential for impacts on the proposed homes and public infrastructure.

Other Geologic/Soils Concerns: The site contains undocumented fill, expansive soils, erosion-prone soils, and colluvial/alluvial materials .

X		
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.04 Air Quality Impacts (Emissions, Odors, Change in Microclimate, etc.):

The proposed land use would generate an incremental increase in the amount of vehicle trips. Construction activity on the site is required to implement dust control measures, e.g., periodic watering of the site, etc., to control airborne particulate. These measures would be identified in detail at the building permit and grading permit stages. Therefore, the impact to air quality resulting from an increase in vehicle emissions would be negligible.

	X	
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.05 Water Related Impacts (Runoff, Flood Hazard, Quality and Quantity of Surface and Ground Waters):

Runoff: Storm water runoff from the site would increase as a result of new development. The effect of increased runoff on the on-site and off-site drainage swales and downstream waterways is not known at this time. However, drainage and stormwater runoff issues are magnified in areas with steep slopes such as the subject site. New, more stringent urban stormwater runoff requirements would have to be considered with development plans for the site.

Water Quality: Pollutants, typical of those found in similar residential areas, would be introduced to surface drainage. Additionally, increased peak flows could result in hydromodification and have a significant impact on the water quality in off-site waterways.

Flooding: The flood hazard maps of the Federal Emergency Management Agency (FEMA) indicate that the project site is not located within a flood prone area. However, localized flooding has been reported in the area of the existing creek located immediately downstream of the project site, to the northwest of the site. Appropriate repair and long-term maintenance measures will be needed to avoid localized flooding of the existing residential development.

X		
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.06 Plant and Animal Impacts (Effect on Existing Ecosystem, Rare or Endangered Species, Etc.):

The site is characterized by rolling hillsides covered with grasses, shrubs, and numerous indigenous trees. Although the native grasses have been replaced with non-native species as a result of historical cattle grazing on the site, many of the trees and shrubs of the site's native, mixed oak woodland natural ecosystem remain.

Surveys of the site were conducted by Live Oak Associates, biological consultants, and Hortscience, consulting arborists, in 2002. Concerns identified in these studies are noted below.

Wetlands: In-channel wetlands, wetland seeps, and tributary waters have been determined to be jurisdictional wetlands, regulated by the U.S, Army Corps of Engineers. These and other natural on-site drainages would also be subject to the jurisdiction of the California Department of Fish and Game and U.S. Fish and Wildlife Service. Development has been shown to occur in and potentially impact these drainage and wetland areas.

Sensitive Plant Species: The preliminary biological study found that two special-status plants, robust monardella and the big tarplant, have the potential to occur on-site. Additional site surveys are needed to determine whether they are found on-site.

Sensitive Animal Species: Ten special-status animal species were found to potentially occur frequently on the site as regular foragers or as residents (breeding), including the California tiger salamander. Potential impacts to migratory birds resulting from construction-related activity is also anticipated. Loss of habitat and disturbance during construction activities would likely have a potential impact on sensitive animal species and would need to be mitigated.

Heritage Trees: The City of Pleasanton has a Heritage Tree Ordinance which regulates the removal of large trees. The arborist's study indicates that there are over 1,000 trees on-site, although only 679 trees were surveyed due to their proximity to the proposed improvements. Of these surveyed trees, 484 were an indigenous species, made up predominantly of blue and valley oaks. Of the 410 trees estimated to be removed as part of the project, 218 of these would be heritage-size trees. Impacts resulting from the removal of these trees, as well as potential impacts on other on-site trees would need to be mitigated.

X		
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.07 Transportation/Circulation Impacts (Additional Traffic, Congestion, parking, Hazards, etc.):

The proposed development is shown to provide vehicular access connections to the existing street, Sunset Creek Lane. This roadway would be extended from its current terminus into the project site to provide access for the new homes. Additionally, two new cul-de-sacs and a loop road would also be constructed on-site to provide access to the proposed lots. A portion of Sunset Creek Lane has not been constructed to the boundary of the project site, but would need to be completed prior or concurrently with the development of this site. Otherwise, the roadway infrastructure between Sunset Creek Lane and Sunol Boulevard has been built to provide adequate capacity for development of this site.

The project shows a proposed vehicular connection to Livingston Way/ Middleton Place. This cul-de-sac was required to be connected to the new streets in this development and its connection to Bonde Ranch streets converted to an EVA. The proposed circulation plan provides for this road closure.

The EIR will need to address the potential significant impacts to the on- and off-site roadway circulation should Sunset Creek Lane not be available at the boundary of this site. Emergency vehicle access (EVA) connections for emergency vehicles would be provided at Kottinger Ranch's EVA (between Casterson and Remillard Courts) and on-site, between Lund Ranch Road and Middleton Place.

TJKM Transportation Consultants have conducted a preliminary traffic analysis of the proposed residential development. The proposed project would generate approximately 1500 vehicle trips per day (ADT). The project would have potential significant impacts on traffic levels in surrounding neighborhoods, as well as levels of service at nearby intersections. A detailed traffic report by the City's model keeper, Dowling and Associates, will be required to determine the project's impacts on intersection LOS, safety, quality of life issues for residential street segments, and other traffic-related issues in the project vicinity.

X		
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.08 Noise Impacts (Increases, Exposure to High Levels, etc.):

Incremental increases in the noise generated from new residences and associated vehicular traffic are expected. Building and site construction would result in construction equipment noise. Construction equipment would be required to meet DMV noise standards and be equipped with

muffling devices. The project would be conditioned to limit site improvements and house construction activities to weekdays to minimize potential impacts on surrounding residential land uses.

	X	
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.09 Impacts on Public Services (Fire, Police, Schools, Parks, Maintenance, etc.):

The proposed project would result in an incremental increase in the demand for parks, school facilities, and police services. The developer would contribute funds to the Pleasanton Unified School District to off-set this project's impacts to school facilities, with said funds being used towards the construction and/or procurement of classrooms. The City's General Plan states that residential uses should have a neighborhood park within ½ mile. Most of the proposed homes would not be within ½ mile of an existing neighborhood park which may not comply with the General Plan. Also, the proposed long-term maintenance of the 115 acres of open space to be deeded to the City and the 0.66 mile of pedestrian trails would potentially have a significant impact on the City's Park maintenance services. As the homes would be in a high fire hazard area, a wildfire management plan would need to be provided and the planned emergency vehicle accesses be reviewed to ensure that public safety standards are met.

X		
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.10 Impact on Utilities (Water, Sewer, Storm Water Drainage, Solid Waste, etc.):

Public street infrastructure including curb, gutter, and sidewalks; streets; and water, storm, and sanitary sewer facilities are available to serve the proposed development on this site. All on-site infrastructure would be installed by the developer, subject to City standards.

	X	
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.11 Growth-Inducing Impacts:

The subject property is in an area of existing residential developments. Areas to the north and west have already been developed with single-family residences. The project site is within the City's Urban Growth boundary and the development of this site would not facilitate additional future growth in this area.

	X	
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.12 Energy Impacts:

Residential development will be subject to local and State energy conservation standards, including Title 24, California State Energy Conservation Standards. An incremental increase in the amount of energy resources will be consumed if 150 new homes are built.

	X	
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.13 Aesthetic Impacts (Obstruction of Views, Design, Etc.)

The construction of 150 new homes on the hillside area, removal of substantial mature trees, and change in topography on the upper elevations of the site may be visible from off-site, including I-680 and adjacent properties. These changes would have a potentially significant impact on views of the site from off-site locations.

X		
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.14 Impacts to Archaeological and/or Historical Sites:

A cultural resources evaluation has conducted by Archaeological Resource Service for the project site and identifies several potentially historically significant structures, including the main ranch house, two wood barns, and three wood sheds. It is noted that additional survey of the structures by a qualified architectural consultant should be undertaken and that hidden artifacts or features may be encountered. Although there are no indications of prehistoric settlement or use on the site, potential exits for the presence of buried resources.

X		
May be Significant	**Insignificant**	**Insignificant if Mitigated**

3.15 Public Controversy	**Yes**	**No**
Is there any serious public controversy concerning the environmental effects of the proposed project? If so, list below.		**X**

4.0	MANDATORY FINDINGS OF SIGNIFICANCE	Yes	No
4.1	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal species or eliminate important examples of the major periods of California history or prehistory?	**X**	_____
4.2	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one, which occurs in relatively brief, definitive period of time while long-term impacts will ensure well into the future.)		**X**
4.3	Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources, where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)		**X**
4.4	Does the project have environmental effects which will cause substantially adverse effects on human beings, either directly or indirectly?		**X**

5.0 STAFF RECOMMENDATION

_____ I find that the proposed project would not have a significant effect on the environment and, thus, recommend a Negative Declaration be prepared.

_____ I find that the mitigation measures recommended in the Initial Study for those aspects of the proposed project which could have a significant effect would reduce the effects to insignificant levels and, thus, if such measures are included as conditions to project approval, I recommend a Negative Declaration be prepared.

___X_ I find that the proposed project may have a significant effect on the environment, and, thus, recommend that an Environmental Impact Report be prepared.

_____ _____

Name Date

Planning Commission
Work Session Staff Report

March 14, 2012
Item 6.d.

SUBJECT: **PUD-25**

APPLICANT: Greenbriar Homes Communities (Mike Meyer and Carol Meyer)

PROPERTY OWNER: Greenbriar Homes Communities (Mike Meyer and Carol Meyer)

PURPOSE: Work Session to review and receive comments on an application for Planned Unit Development (PUD) rezoning and development plan to construct 50 single-family, two-story homes and related improvements on the approximately 194.7-acre Lund Ranch II property.

GENERAL PLAN: Low Density Residential (< 2.0 dwelling units per acre), Rural Density Residential (1 dwelling unit per 5 acres), and Public Health and Safety with a Wildlands Overlay.

ZONING: PUD – LDR/OS (Planned Unit Development – Low Density Residential/Open Space) District.

LOCATION: 1500 Lund Ranch Road at the present end of Lund Ranch Road

ATTACHMENT:

A. Questions for the Planning Commission's consideration, dated March 14, 2012.
B. Revised PUD Development Plan dated "Received September 16, 2011," including Building Floor Plans and Elevations, Corrective Grading Plan, Grading and Utility Plan, Illustrative Site Plans with/without Homes, Landscape Plan, Landscape Sections and Front Yards, Site Development Plan, Slope Map, Trail Plan, and Tree Exhibit.
C. Previous PUD Development Plan for PUD-25 with 113-unit and 150-unit development options and supporting materials.
D. City Council staff report on the "Analysis of the Impacts and Effects of the 'Save Pleasanton's Hills & Housing Cap Initiative,'" dated June 11, 2008.
E. Minutes of the City Council public hearings on the "Analysis of the Impacts and Effects of the Save Pleasanton's Hills & Housing Cap Initiative" held on May 20, 2008, June 24, 2008, and July 17, 2008.

F. Planning Commission Staff Report for the previous EIR Scoping Session, dated September 24, 2003.
G. Minutes of the Planning Commission's Scoping Session held on September 24, 2003.
H. Ordinance 1508 for PUD-18 (Bonde Development), dated May 21, 1991.
I. Minutes of the City Council Public Hearing on PUD-18 held on May 21, 1992.
J. Letter of Understanding between the Ventana Hills Steering Committee and Shapell Industries of Northern California, dated May 1, 1991.
K. Letter of Understanding between the Pleasanton Heights Homeowners Association and Shapell Industries of Northern California, dated April 15, 1991.
L. Chapter 18.76, HPD District, of the Pleasanton Municipal Code.
M. Figure V-2, Proposed Circulation Plan, of the North Sycamore Specific Plan
N. Section V.B.1., East-West Collector (page 49) of the North Sycamore Specific Plan.
O. Tree Report, Lund Ranch II, dated August, 2011, prepared by HortScience, Inc.
P. Photographs of the Lund Ranch II property
Q. Location Map
R. Public Notice Area

I. PURPOSE OF THIS MEETING

The purpose of this work session is to give the Planning Commission and the public the opportunity to review and discuss the revised, 50-unit PUD Development Plan proposed by Greenbriar Homes Communities on the Lund Ranch II property.

II. BACKGROUND

Initial Application

Greenbriar Homes submitted a preliminary application for the Lund Ranch II development with 113 single-family homes on 12,000-square-foot lots. Based on this plan, City staff determined that an Environmental Impact Report would be necessary to address the environmental impacts and mitigation measures of developing the Lund Ranch property. The City Council, at its meeting on the contract with the City's EIR consultant, Geier & Geier, directed the applicant and staff to consider increasing the proposed project's density as a means of adding an affordable housing component to the proposal.

Greenbriar Homes replied to the City Council's direction with a 150-unit development plan proposed as Alternative B, with 43 units designed as "cluster homes" (five

detached homes on 3,000 square foot lots served by a motor court), 23 units on 4,000- to 6,000-square-foot lots, and 79 units on 12,000- to 40,000-square-foot lots. The proposed 150-unit alternative proposed to utilize the 25-percent density bonus (Policy 11, Page 2-32) of the Pleasanton General Plan "for the provision of significant affordable housing." The preliminary 113-unit development was revised to 107 units and re-submitted as Alternative C.

The entire 150-unit development with streets and related improvements was located on approximately 80 acres with the remaining 114.7 acres proposed to be dedicated to the City of Pleasanton as permanent open space, with the proposed project's wildland fire management areas, public trails, and a public trail staging area. The 107-unit and the 150-unit development plan alternatives and supporting materials constituted the PUD-25 application (Exhibit C) and was the development to be evaluated in the project's EIR. The EIR review, however, was not completed.

Revised Application

Completion of the project review and the project's environmental review was delayed by the Pleasanton General Plan update and by the referendums for Measures PP and QQ that addressed development in the City's hillside areas and defined the term "dwelling unit" for the General Plan. After the City completed the General Plan update, the applicant prepared and re-submitted the proposed PUD Development Plan, which is designed to implement the policies and design criteria of Measures PP and QQ (Measure PP/QQ). The result is Exhibit B, the proposed development plan with 50 units and related improvements on approximately 33.8 acres and with the remaining 160.9 acres preserved as permanent open space.

The revised 50-unit project is being evaluated in the project EIR, which will discuss the environmental issues and mitigation measures identified for these issues:

- Conformity with the General Plan including Measure PP/QQ;
- Density and Development Areas;
- Impacts on surrounding area, such as traffic, views, and vegetation including Heritage trees;
- Geologic and geotechnical issues, such as grading, seismic conditions, landslides, and debris flows;
- Water-related issues, including water quality, runoff, potential flooding, and stormwater treatment including compliance with current regulations;
- Plant and wildlife impacts, such as wetlands, sensitive flora and fauna species and their habitat areas, and tree removal;
- Traffic circulation;
- Noise impacts;
- Air quality impacts;
- Impacts on public facilities including City facilities and schools; and,
- Impacts on cultural resources and historical resources.

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PUD-25 Public Draft EIR Scoping Session
On September 24, 2003, the Planning Commission held its public meeting to gather public comment on the scope and content of the EIR for the Lund Ranch proposal. Exhibit F is the Planning Commission staff report and Exhibit G are the minutes of the Planning Commission's scoping session. Public comments expressed at the scoping session include: 1) affordable and low-income housing, 2) inadequate disclosures to the residents of the Bridal Creek development, 3) loss of habitat areas, rangeland, trees and vegetation, 4) grading and erosion, 5) noise, 6) parks and open space, 7) placement of houses, 8) school impacts, 9) traffic impacts to surrounding streets including access and pedestrian safety, 10) views, and 11) water quality.

The Planning Commission directed staff and/or the applicant address the following issues with the 150-unit project and/or the EIR:

- Address the potential transfer of the unused development rights from the Lund Ranch property to other properties in Pleasanton;
- Address the proposed buildings on ridges;
- Address construction routes and possible neighborhood traffic calming measures;
- Consider alternative access points such as Kottinger Ranch, Bonde Ranch, and Ventana Hills;
- Concern regarding major grading and tree loss;
- Concern regarding potential impact to the City's Urban Growth Boundary Line;
- Analyze the proposed project according to the General Plan;
- Consider an off-site project alternative, such as the Hacienda Business Park, for this development;
- Address amenities if the project density exceeds the General Plan midpoint density of 83 units; and,
- Consider the cumulative impacts on air quality and energy.

Some of the above-listed items, such as buildings on ridges, impacts to the City's Urban Growth Boundary Line, and amenities, are addressed and/or mitigated by the 50-unit development plan.

III. SUBJECT PROPERTY AND SURROUNDING AREA

Project Location
The Lund Ranch II property consists of a single parcel, approximately 194.7 acres in area, located on 1500 Lund Ranch Road at the present end of Lund Ranch Road. Figure 1, on the following page, is the 2010 aerial/photograph location map showing the Lund Ranch II property and surrounding uses and developments.

Figure 1: 2010 Aerial Photograph/Location Map of the Lund Ranch Property and Surrounding Land Uses

Figure 2, on the following page, is a Google Earth view of the Lund Ranch II property and surrounding uses and developments.

Figure 2: Google Earth View of the Lund Ranch Property and Surrounding Land Uses

Subject Property, Site Access, and Surrounding Land Uses

Subject Property

Exhibit P are photographs of the Lund Ranch II property. The 195-acre Lund Ranch II property is an operating cattle ranch. In 1998, the Lund family sold the property to Greenbriar Homes who then leased the property back to the Lund family for cattle grazing. The Lund property features several buildings including a vacant farmhouse, barn, corrals, and sheds, and a caretaker's trailer that is still occupied. All existing structures would be removed with development of the Lund Ranch II property.

The site is comprised of relatively flat areas and rolling hills, swales, and ravines with areas of steep slopes. More than two-thirds of the site's topography ranges from a 10-percent to 40-percent grade. Several prominent ridges, ridgelines, and knolls are within the northern and southerly portions of the site, primarily aligned in an east to west direction. The ridgelines of the property cross over the property lines onto the Oak

Grove, Sportono, and Foley properties. The flattest area of the site is located at the northwesterly portion of the site at the entrance from Lund Ranch Road.

The Lund Ranch property has several seeps and springs distributed throughout the site with groundwater encountered at a depth varying from 3 feet to 15 feet below the surface. A series of seasonal drainage courses drain the Lund property into a moderately-sloped channel that then empties into the creek flowing into the adjacent Sycamore Heights development to the west.

There are approximately 1,700 existing trees on the property including approximately 1,400 valley oak trees and blue oak trees and a variety of orchard/ornamental trees, such as, palm trees, California black and English walnut trees, olive trees, etc.

Surrounding Land Uses

Surrounding uses are described on Table 1, below.

Table 1: Surrounding Land Uses or Developments

Direction	Land Use/Development	General Plan Designation
North	Kottinger Ranch development: Large-lot Single-Family Homes and open space	Rural Density Residential (1 du/5 acres, Low Density Residential (< 2 du/ac), and Medium Density Residential (2 to 8 du/ac)
East	Foley property: Cattle grazing	Rural Density Residential (1 du/5 acres, Agriculture and grazing with Wildland Overlay, and Urban Growth Boundary
South	Sportono property: Cattle grazing	Happy Valley Specific Plan: 1 du/2 acres or 1 du/1.5 acres in conjunction with major open space land or an agriculture/open space easement dedication, Medium Density Residential (2 to 8 du/ac), and Urban Growth Boundary
	City water tank	Rural Density Residential (1 du/5 acres) and Urban Growth Boundary
West	Bonde Ranch development: Single-Family Homes on 8,000+ sq. ft. lots and open space.	Low Density Residential (< 2 du/ac) and Parks and Recreation
	Ventana Hills development: Single-Family Homes on 8,000 sq. ft. lots.	Low Density Residential (< 2 du/ac) and Parks and Recreation
	Bridal Creek development: Single-Family Homes on 7,000 sq. ft. to 8,000 sq. ft. lots.	North Sycamore Specific Plan: Low Density Residential (< 2 du/ac)

Site Access

Primary street access to the Lund Ranch property is provided from Lund Ranch Road. The City streets providing access to the Lund Ranch property are sized to handle the additional traffic that would be generated by the proposed 50-unit project. A second street access is available to the Lund Ranch property from Livingston Way on the adjacent Bonde Ranch development to the west.

IV. PROJECT DESCRIPTION

Proposed Development Plan

Figure 3, on the following page, is a copy of the focused site development plan with homes for PUD-25.

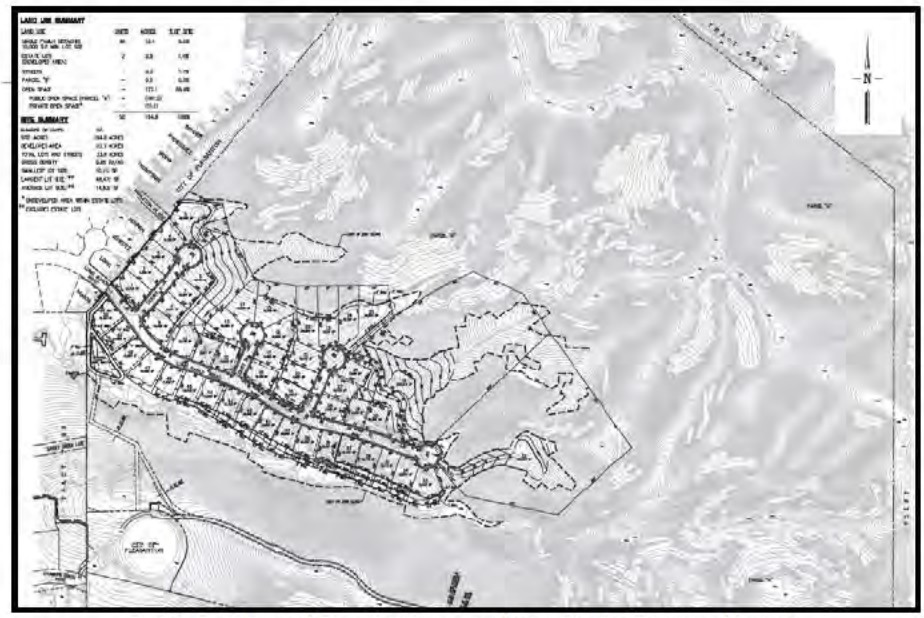

Figure 3: Focused Site Development Plan with the Proposed Homes

Proposed Site Design

Greenbriar Homes would construct 48 production lots, varying in area from 10,506 square feet (0.24 acres) for Lot 49 to 48,472 square feet (1.11 acres) for Lot 6, and 2 estate lots varying in area from 283,814 square feet (6.52 acres) to 323,992 square feet (7.44 acres. The average lot size for all 50 lots would be 14,632 square feet (0.34 acres). The developed portion of the project site would develop approximately 33.8 acres. The remaining 160.9 acres of the Lund ranch II property would be preserved as natural terrain, would be designated as permanent open space containing the proposed development's wildland fire management areas, public trails, and a possible public trail staging area, and would contain the existing City water tanks and water tank access roads. A bio-retention pond is proposed along the rear property lines of Lots 48 through 50 to treat the development's stormwater runoff before entering the City's storm drain system.

Proposed Streets

The proposed lots will be accessed from public streets. The applicant would extend Lund Ranch Road approximately 1,500 feet into the property to a cul-de-sac. Three courts ending in cul-de-sacs would then extend into the developable areas of the site

and ending in cul-de-sacs. All streets and courts are double-loaded with lots on both sides of the street and court. No public street connections are proposed with this development plan to Livingston Way in the Bonde Ranch development or to Sunset Creek Lane in the Sycamore Heights development.

Proposed Building Design

Three building plans are proposed. Plan One – 4,123 square feet, one- and two-stories in height, with a one-car side-entry and a two-car front-entry garage, Plan Two – 4,280 square feet, two-stories in height, with a one-car side-entry and a two-car front-entry garage, and Plan Three – 4,501 square feet, two-stories in height, with a one-car side-entry and a two-car front-entry garage. Each building plan includes three exterior finishes with varied material and color palettes including a combination of light- to dark-tone gray, beige, and brown body and trim colors, beige and gray flat concrete tile roofs, and beige and gray stone and red brick wainscots. The proposed building architecture is designed to complement the building designs of surrounding properties.

V. DISCUSSION

Pleasanton General Plan

The Pleasanton General Plan designates the Lund Ranch property for Low Density Residential (< 2.0 dwelling units per acre) on 58.4 acres equaling 116 units, Rural Density Residential (1 dwelling unit per 5 acres) on 123 acres equaling 24 units, and Public Health and Safety with a Wildlands Overlay on 13.3 acres equaling 1 unit. Based on these land use designations and acreages, the Lund Ranch property would have a maximum density of 141 units and a midpoint density of 83 units. The proposed density for the Lund Ranch development is 0.25 dwelling units per acre following the General Plan's methodology of calculating density based upon "Gross Developable Acres."

Measure PP/QQ

Measure PP/QQ states that, "No grading to construct residential or commercial structures shall occur on hillside slopes 25% or greater, or within 100 vertical feet of a ridgeline." Attached is the "Analysis of the Impacts and Effects of the Save Pleasanton's Hills & Housing Cap Initiative," dated June 11, 2008 (Exhibit D) and the minutes of the May 20, 2008, June 24, 2008, and July 17, 2008 City Council public hearings on this item (Exhibit E).

Measure PP/QQ prohibits the placement of housing and structures on slopes of a 25-percent or greater, or within 100 vertical feet of ridgeline, as well as a general prohibition on grading to construct residential or commercial structures in those areas. Measure PP/QQ, however, did not define terms such as slope, structure, and ridgeline which left these terms subject to further definition with the City's review of development in hillside areas. With the development application of the Hana Japan site (southwest corner of Dublin Canyon Road and Foothill Road), the City determined that the slope bank along the Dublin Canyon Road and Foothill Road sides of the project site was a manufactured slope done with the road widening and, therefore, was not subject to the requirements of Measure PP/QQ.

Greenbriar Homes designed the Lund Ranch II Development Plan based on the staff direction provided to [seems text is missing here?] on the application of Measure PP/QQ standards. Staff also sought to define the terms used in Measure PP/QQ, such as ridgeline, slopes, and structures. The application of Measure PP/QQ standards to the Lund Ranch II affects site design, location of trails in the hillside areas of the Lund Ranch II site, and the street connections to adjacent developments and properties including connections to Livingston Way, required by the Bonde PUD Development Plan (PUD-90-18), Sycamore Creek Lane, shown on the North Sycamore Specific Plan (Exhibit M and Exhibit N) and addressed with a road easement on the Sycamore Heights Development (PUD-97-12), and a future connection to the Foley property adjoining the east side of Lund Ranch II.

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Methodology in Applying Measure PP/QQ to the Lund Ranch II Development

Measuring Slope
Staff defined the 25-percent slope as a nominal value, i.e., proceeding from the relatively flat portions of the site, going upslope until the slope grade increases to 25 percent, and then plotting the point on a topographic map. The 25-percent slope line is the line that links these points together into a continuous line. Staff evaluated the Weighted Incremental Slope (WIS) formula for the Lund Ranch II property but rejected the WIS formula as not being consistent with Measure PP/QQ, in that this slope averaging formula would include and, therefore, potentially allow development on slopes greater than a 25-percent slope grade. The HPD (Hillside Planned Residential) District, Chapter 18.76 of the Pleasanton Municipal Code uses a WIS formula to calculate average slope. However, the HPD District only applies to one property west of Foothill Road. Exhibit L is a copy of Chapter 18.76.

1. *Question for the Planning Commission:*
   Staff requests the Planning Commission to review and comment on the definition of the 25-perecent slope as used for the Lund Ranch II development?

Ridgeline Defined for Lund
The HPD District, Chapter 18.76 of the Pleasanton Municipal Code, defines "ridge" as a "connected series of major and minor hills" and "ridgeline" as a "ground line located at the highest elevation of a ridge running parallel to the long axis of the ridge." A "ridge" and "ridgeline" is as the name would apply – the topographic high points of the property connected by a continuous line flanked on both sides by relatively steep slopes.

Staff further clarified these terms by using the peaks and similar highpoints on the Lund Ranch II property to define the ends of ridgelines. Using this methodology, the ridge lines end at the peaks and highpoints of the Lund Ranch II property, the relatively steeper site topography, and prevents the ridgeline from extending down to slopes less than a 25-percent slope grade and/or ending at the property lines of adjoining developments. Staff notes this methodology would provide a larger amount of land area that can then be proposed for development provided that other site constraints are addressed. Staff considers this method to define the ends of a ridgeline to be

consistent with Measure PP/QQ in that it implements the purpose of Measure PP/QQ to keep development off the steep slopes of hillside areas.

2. *Question for the Planning Commission:*
Does the Planning Commission concur with the methodology used to end ridgelines on hillside properties?

Applying Measure PP/QQ to the Lund Ranch II Development
Staff then worked from the slope analysis map prepared by the applicant to determine the locations of the 25-percent slopes and ridgelines on the Lund Ranch II property. (The applicant's information was verified as accurate by the City's GIS department.) Staff plotted the setback line from the ridgeline elevation, measured as the ridgeline grade elevation, minus 100 vertical feet, to closest slope grade (where the 100-foot ridgeline setback line "daylights" on the downhill slope). The Measure PP/QQ development limit line was then derived from the greater of the two setback lines. Figure 4, below, shows the slope grades and ridgelines for the Lund Ranch II property with the Measure PP/QQ development limit line. The applicant then designed the proposed Lund Ranch II Development Plan in conformance to this Measure PP/QQ development limit line.

Figure 4: Slope/Ridgeline Map with the Measure PP/QQ Development Limit Line

3. *Question for the Planning Commission:*
Does the Planning Commission concur with the methodology used for the Lund Ranch II development that defines the Measure PP/QQ slopes, ridgelines, and development limit lines?

Proposed Lots with Slopes Over 25 Percent

Lots 5, 15, 22-25, and 31-32 project portions of the yard areas into the natural hillside areas covered by Measure PP/QQ. The development on these lots is only proposed on the areas of these lots not covered by Measure PP/QQ. Accessory structures and further grading into these hillside areas would be prohibited through PUD Development Plan conditions and land use instruments, such as open space easements and/or deed restrictions that would run with the property in perpetuity.

4. *Question for the Planning Commission:*
   Does the Planning Commission concur in allowing natural terrain, covered by the applicable land use restrictions to prevent grading and development, to be incorporated in private property or should the proposed lot lines be revised to exclude the natural hillside areas?

Lot 28 through 30 and 33 through 39 and a portion of the public street and cul-de-sac are proposed over land that technically exceeds a 25-percent slope. Figure 5, below, is close-up view of these lots, streets, and slope grades.

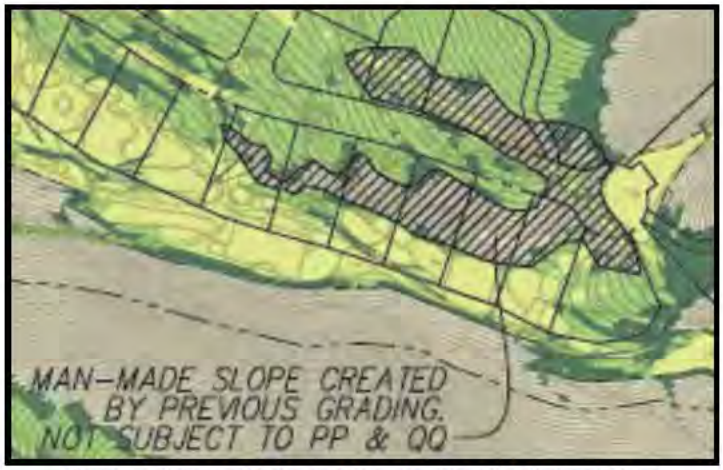

Figure 5: Proposed Lots and Streets over a 25-Percent Slope

Staff determines from review of the slope map that these areas of the Lund Ranch II property were originally natural slopes at a grade less than 25 percent, and that the slopes over a 25-percent slope grade were the result of the grading done by the Lund family to provide an access road, dam for a stock pond, and a flat area for a barn. Staff, therefore, considers these slopes to be manmade and not covered by Measure PP/QQ

5. *Question for the Planning Commission:*
   Does the Planning Commission concur with allowing these manmade slopes that exceed a 25-percent grade to be developed, or should these areas be excluded from development?

Public Trails
The applicant proposes to locate public trails on the ridges, the areas less than a 25-percent slope, with proposed connections to the Bonde and Sycamore Heights developments and to the Foley property. However, some of the trail connections – for example, to the open space area of the Bonde Development and to the Foley property, would cross the project site's slope areas that exceed a 25-percent grade.

Measure PP/QQ is silent on the subject of trails. Staff believes that trails can be provided on the Lund Ranch II properties on slopes greater than a 25-percent grade if kept to a narrowest feasible width and constructed of natural material such as decomposed granite or similar material. Staff notes that the proposed trail system will be presented to the City's Parks and Recreation Commission and to its Ad Hoc Trails Committee.

6. *Question for the Planning Commission:*
Does the Planning Commission concur with allowing City trails on limited portions of 25-perecent slopes if these trails are kept to the narrowest feasible width to minimize or avoid grading and if the trails are constructed of natural materials, such as decomposed granite and/or similar material?

Grading Design
All proposed lots are flat pad lots. The grading for the two estate lots as custom lots will be addressed with the design guidelines prepared for these lots. Grade differences between lots would be designed with a combination or single- or multiple retaining walls and/or slope banks. A combination of single- and multiple retaining walls and slope banks transition the rear property lines of Lots 33 through 47 to the existing creek.

The proposed retaining walls would vary in height from 3 feet to 6.5 feet. Multiple retaining walls would be designed as stepped retaining walls separated by a distance varying from 10 feet to 40 feet that would allow for planting in these stepped areas to soften and/or screen the retaining wall from view. The applicant has not stated the material that would be used to construct the retaining walls. Typically, retaining walls are faced with natural or artificial stone material.

7. *Question for the Planning Commission:*
Does the Planning Commission have preference as to the materials used on the retaining walls for the lots?

Some of the proposed slopes between lots are significant. For example, a 30-foot tall slope bank is proposed between Lot 7 and Lot 13. Measure PP/QQ is silent on the subject of grading design. Staff will review the use of split pad lots, stepped foundations, and/or terraced lots to reduce the amount of grading, reduce the height of slope banks, and/or to transition the proposed lots to existing terrain as well as to each other. These measures, however, could potentially further reduce the number of units as well as increasing the construction costs of the project. For these reasons, the applicant does concur with making these changes to the proposed development.

8. *Question for the Planning Commission:*
Does the Planning Commission believe that the grade differentials between lots should be reduced with the use of split pad lots, stepped foundations, and/or terraced lots?

Trees
Exhibit O is the tree analysis for proposed project. There are approximately 1,700 existing trees on the Lund ranch II property including 1,400 native oaks. The attached tree report assessed 220 existing trees within and immediately adjacent to the proposed development that include 46 valley oak (22 Heritage) trees and a combination of black locust, California black walnut, and olive species, the predominant species that were covered by the tree survey. Of this number, 106 existing trees are Heritage species as defined by the Pleasanton Municipal Code. Of this number, 111 existing trees are proposed to be removed with 72 trees qualifying as a Heritage tree. The subject of tree preservation and mitigation including replacement and replanting will be reviewed in the EIR with a tree preservation and mitigation plan identified for the project.

9. *Question for the Planning Commission:*
Staff requests the Planning Commission's comments on tree preservation for the Lund Ranch II development.

Connections to Middleton Place and to Sunset Creek Lane
Condition 13 and Condition 30 of Ordinance 1509 for PUD-90-18 (Exhibit H) required Shapell Industries, the developer of the Bonde Ranch development, to abide by the agreements reached between its representatives and two neighborhood groups: the Pleasanton Heights Homeowners Association and the Ventana Hills Steering Committee. Shapell Industries entered into these agreements in order to obtain the support of these two neighborhood groups. (Exhibit I are the minutes of the City Council Public Hearing held on PUD-18, and Exhibit K are the agreements between Shapell Industries and the Pleasanton Heights Homeowners Association and the Ventana Hills Steering Committee.)

These agreements listed the revisions to the Bonde Ranch Development Plan that have been met by the Bonde Development, and addressed two street connections from the Lund Ranch II property to the east-west collector street (Sunset Creek Lane in the Sycamore Heights development) in the North Sycamore Creek Specific Plan that would reduce the amount of Lund Ranch II traffic going through the Ventana Hills neighborhoods, and from Lund Ranch II property to Middleton Place in Bonde Ranch to reduce the amount of Bonde Ranch traffic using Livingston Way to Hopkins Way to Lund Ranch Road. Residents of Ventana Hills including members of the Ventana Hills Steering Committee have stated to staff that these previous requirements for street connections must be provided by the proposed Lund Ranch II development.

Connection to Middleton Place
Condition 13 of Ordinance 1509 stated that Shapell Industries was to use its best effort to secure the right-of-way on the Lund Ranch II property to connect Middleton Place to Lund Ranch II. The section of Livingston Way between the homes on Braxton Place

and Middleton Place would then be converted from its present configuration as a 28-foot wide public street to a gated EVA, with Middleton Place then connected to the Lund Ranch II development. Middleton Place ends opposite the Lund Ranch II property's northwest property line in the approximate area between the proposed development's Lot 4 and Lot 5.

Implementing this requirement means that Middleton Place owners would no longer be able to use Livingston Way to Hopkins Way to Lund Ranch Road as they have been doing for the past 20 years, but will have to use the public streets on the Lund Ranch development to reach Lund Ranch Road. Several Middleton Place owners, however, want to maintain Livingston Way as a through street to Hopkins Way and have submitted PUD-90-18-07M, the PUD Minor Modification that if approved would retain Livingston Way as a public through street. No City action has been taken on the proposed modification, and the City's position is that the proposed modification will be reviewed concurrently with the Lund Ranch development plan proposal.

The proposed Lund Ranch development plan does not now show this connection to Middleton Place. If required, the Lund Ranch II development would be revised to show the connection from Middleton Place to Court A. The applicant has stated to staff that this connection can be provided without losing any lots. The Middleton Place connection would also be located on project area below the 25 percent limit line of PP/QQ.

10. *Question for the Planning Commission:*
The street connection to Middleton Place will be determined with the review of the proposed project. The Planning Commission should review this issue and provide its comments to staff, the applicant, and the public.

Connection to Sunset Creek Way
Condition 30 of Ordinance 1509 covered the street connection from the Lund Ranch II development to Sunset Creek Lane in the Sycamore Heights development. (Staff notes that the previous development plan did include this street connection.) The street connection to the Sycamore Heights development, however, is opposed by the Sycamore Heights residents.

Item d. in the Letter of Understanding stated that, "Permanent routing for access to and from "G" Court (Livingston Way) is intended to connect through proposed development on Lund Ranch, to a proposed East-West Collector Road, without direct connection to Ventana Hills. The proposed East-West Collector Road is shown on Figure V-2, Proposed Circulation Plan of the North Sycamore Specific Plan. The Specific Plan under Section B.1., East-West Collector states, "The proposed Plan includes construction of a new east-west collector street connecting the North Sycamore area and the adjacent proposed Lund II development to the east with Sunol Boulevard to the west."

Construction of the street connection from the Lund Ranch II development to Sunset Creek Lane is not required to reduce traffic level-of-service on Lund Ranch Road or to

provide a second street access for emergency vehicles. The east-west collector was incorporated in the North Sycamore Specific Plan to distribute Lund Ranch II traffic through the streets of neighboring developments. However, since Lund Ranch II was not part of the North Sycamore Specific Plan, there is no requirement in the Specific Plan that would require the Lund Ranch II developer was required to actually connect to the east-west collector. The Lund Ranch II property is identified as a funding developer for the North Sycamore Specific Plan based on a 151-unit development reviewed with the cumulative analysis of the North Sycamore Specific Plan EIR.

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The street connection would cross jurisdictional water and would cross the 25-percent slopes covered by Measure PP/QQ. Measure PP/QQ itself is silent on the subject of streets and roads. Section 4.2 of the attached staff analysis of the impacts/effects of Measure PP/QQ evaluated the effect of Measure PP/QQ on the Happy Valley Bypass Road, and Section 5.7 evaluated the applicability of Measure PP/QQ on location of streets and roads in general in the context of the measure's prohibition of housing, structures, and grading on 25-percent or greater slopes.

Staff consider streets and roads to be covered by Measure PP/QQ. The intent of Measure PP/QQ is to protect hillsides and ridgelines from development, i.e., preserve these areas in their natural state and, as paraphrased from Measure PP/QQ, to direct development away from lands with environmentally sensitive features, primary open space values, and lands difficult to service by existing jurisdictions. Constructing a street or road on hillside property involves the construction of artificial slopes that may not entirely match the surrounding and terrain and the installation of sub-surface structures to maintain the street's stability and drainage measures, such as concrete "V"-ditches and/or subsurface piping, to ensure that rainwater and upslope runoff is directly away from the street and that the street itself is drained to prevent failure.

Also stabilizing the new grades in steeply sloped areas over a 25-percent grade will involve cut and fill areas. Fill areas have to be buttressed at the base for stability, which would increase the graded area. Retaining walls, if used to reduce cut and fill areas, are structures requiring a building permit and, for this reason, are definitely prohibited by Measure PP/QQ.

Staff considers a street or road and its attendant infrastructure to be a structure in that it is a physical improvement on the property intended to accommodate development. For this reason, the street connection from Lund Ranch II to Sunset Creek Lane may not be provided due to it being inconsistent with Measure PP/QQ. However, not providing the street connection to Sunset Creek Lane will require the applicant to submit an amendment to the North Sycamore Specific Plan in order to make the Specific Plan consistent with the Pleasanton General Plan. The applicant does not concur with this requirement.

11. *<u>Question for the Planning Commission:</u>*
Does the Planning Commission concur with the staff determination that streets are covered by Measure PP/QQ?

Miscellaneous Issues
Issues pertaining to open space ownership, project landscaping, storm water treatment, green building measures, and building design and detailing will be evaluated and presented to the Planning Commission in conjunction with the Draft EIR and/or the project analysis.

VI. PUBLIC COMMENT

Public Comment/Neighborhood Concerns and Controversy
A map of the public notice area is attached. Based on the communications received by staff, the proposed project is controversial to surrounding neighbors and homeowners associations.

The comments received generally cover the environmental issues pertaining to available City and regional parks to service the residents of the proposed project, available school capacity to serve the children of the proposed project, impacts to the quality of life of existing neighborhoods, loss of existing trees, loss of open space provided by the subject property, loss of views, single public street connection to Hearst Drive, proposed density, traffic and circulation, etc.

VIII. ENVIRONMENTAL ASSESSMENT

Environmental review for the proposed project will be covered by an Environmental Impact Report prepared in conformance with the standards of the California Environmental Quality Act.

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X. STAFF RECOMMENDATION

Staff recommends the Planning Commission hear all public comments and then discuss and provide direction to staff and to the applicants on PUD-25 according to Exhibit A, Questions for the Planning Commission.

Staff Planner: Marion Pavan, Associate Planner, 925-931-5610 or mpavan@ci.pleasanton.ca.us.

PUD-25
Exhibit A, Questions for the Planning Commission

Lund Ranch II
1500 Lund Ranch Road
March 14, 2012

1. *Staff requests the Planning Commission to review and comment on the definition of the 25-perecent slope as used for the Lund Ranch II development?*

2. *Does the Planning Commission concur with the methodology used to end ridgelines on hillside properties?*

3. *Does the Planning Commission concur with the methodology used for the Lund Ranch II development that defines the Measure PP/QQ slopes, ridgelines, and development limit lines?*

4. *Does the Planning Commission concur in allowing natural terrain, covered by the applicable land use restrictions to prevent grading and development, to be incorporated in private property or should the proposed lot lines be revised to exclude the natural hillside areas?*

5. *Does the Planning Commission concur with allowing these manmade slopes that exceed a 25-percent grade to be developed, or should these areas be excluded from development?*

6. *Does the Planning Commission concur with allowing City trails on limited portions of 25-perecent slopes if these trails are kept to the narrowest feasible width to minimize or avoid grading and if the trails are constructed of natural materials, such as decomposed granite and/or similar material?*

7. *Does the Planning Commission have preference as to the materials used on the retaining walls for the lots?*

8. *Does the Planning Commission believe that the grade differentials between lots should be reduced with the use of split pad lots, stepped foundations, and/or terraced lots?*

9. *Staff requests the Planning Commission's comments on tree preservation for the Lund Ranch II development.*

10. *The street connection to Middleton Place will be determined with the review of the proposed project. The Planning Commission should review this issue and provide its comments to staff, the applicant, and the public.*

11. Does the Planning Commission concur with the staff determination that streets are covered by Measure PP/QQ?

PLANNING COMMISSION MEETING MINUTES

City Council Chamber
200 Old Bernal Avenue, Pleasanton, CA 94566

DRAFT

Wednesday, March 14, 2012
7:00 p.m.

CALL TO ORDER

The Planning Commission Meeting of March 14, 2012, was called to order at 7:00 p.m. by Chair Jerry Pentin.

PLEDGE OF ALLEGIANCE: The Pledge of Allegiance was led by Commissioner Greg O'Connor.

1. ROLL CALL

Staff Members Present: Brian Dolan, Community Development Director; Janice Stern, Planning Manager; Julie Harryman, Assistant City Attorney; Natalie Amos, Associate Planner; Marion Pavan, Associate Planner; and Maria L. Hoey, Recording Secretary

Commissioners Present: Chair Jerry Pentin, Commissioners Phil Blank, Greg O'Connor, Arne Olson, and Jennifer Pearce

Commissioners Absent: Commissioner Kathy Narum

2. APPROVAL OF MINUTES

a. February 8, 2012

Commissioner Blank requested that the first sentence of the first paragraph on page 5 be modified to read as follows: "Commissioner Blank stated that he is a security, risk, and fraud analyst…."

Commissioner Blank further requested that sentence on the ninth paragraph of page 9 be modified to read as follows: "Commissioner Blank inquired if the scanner is hooked up to the ~~CLEF~~ *California Law Enforcement Telecommunications Systems (CLETS)* system, which checks for outstanding warrants or anything similar."

Commissioner Blank moved to approve the Minutes of the February 8, 2012 meeting as amended.
Commissioner Pearce seconded the motion.

ROLL CALL VOTE:

AYES: Commissioners Blank, Olson, O'Connor, Pearce, and Pentin
NOES: None
ABSTAIN: None
RECUSED: None
ABSENT: Commissioner Narum

Commissioner Pearce commended staff for a great set of Minutes.

b. February 22, 2012

Commissioner Pearce moved to approve the Minutes of the February 22, 2012 meeting as submitted.
Commissioner Olsen seconded the motion.

ROLL CALL VOTE:

AYES: Commissioners Olson, O'Connor, Pearce, and Pentin
NOES: None
ABSTAIN: Commissioner Blank
RECUSED: None
ABSENT: Commissioner Narum

3. MEETING OPEN FOR ANY MEMBER OF THE AUDIENCE TO ADDRESS THE PLANNING COMMISSION ON ANY ITEM WHICH IS NOT ALREADY ON THE AGENDA

There were no members of the audience wishing to address the Planning Commission.

4. REVISIONS/OMISSIONS TO THE AGENDA

Ms. Stern advised that there were no changes to the Agenda.

Chair Pentin requested confirmation that Item 8.c., P12-0113, Angela Joe-Willmes and Linda Martin, Appellants (Kathy Wooley/Harris French & Associates, for WalMart Neighborhood Market, Applicant) has been moved.

Ms. Stern replied that was correct. She noted that, as stated on the Agenda, it will be heard at a Special Meeting on Monday, March 19, 2012.

4. CONSENT CALENDAR

a. P11-0953, Centerpointe Presbyterian Church
Application to modify the approved Conditional Use Permit for Centerpointe Presbyterian Church located at 3410–3450 Cornerstone Court to allow a Kindergarten through 8th Grade private school to be located in a previously approved but unbuilt 13,968 square-foot building. Zoning for the property is PUD-LDR/MDR/HDR/P&I and Mixed Use/P&I and MDR (Planned Unit Development – Low Density Residential/ Medium Density Residential/High Density Residential/Public & Institutional and Mixed Use/Public & Institutional and Medium Density Residential) District.

Chair Pentin stated that he had one speaker card for this item and asked staff if it should be pulled from the Consent Calendar.

Brian Dolan replied that the Commission would typically do that.

Chair Pentin advised that Item 5.a. will be moved as the first item under Public Hearings and Other Matters.

6. PUBLIC HEARINGS AND OTHER MATTERS

Item 5.a., P11-0953, Centerpointe Presbyterian Church
Application to modify the approved Conditional Use Permit for Centerpointe Presbyterian Church located at 3410–3450 Cornerstone Court to allow a Kindergarten through 8th Grade private school to be located in a previously approved but unbuilt 13,968 square-foot building. Zoning for the property is PUD-LDR/MDR/HDR/P&I and Mixed Use/P&I and MDR (Planned Unit Development – Low Density Residential/ Medium Density Residential/High Density Residential/Public & Institutional and Mixed Use/Public & Institutional and Medium Density Residential) District.

Natalie Amos presented the staff report and described the scope, layout, and key elements of the proposal.

THE PUBLIC HEARING WAS OPENED.

Sandy Farrell, President of the Ironwood Homeowners Association, representing the residents of the Ponderosa Ironwood Development located adjacent to the church site, stated that they are not challenging the permit for the Kindergarten through 8th Grade school. She noted that for the past four years, the Ironwood Homeowners Association has paid all the expenses to maintain the landscaping along Valley Avenue, Busch Road, and Ironwood Drive, which includes the area adjacent to the church property. She recalled for the Commission that when Ponderosa requested Commission approval for its adult community, The Villages on Bradford Drive, the Ironwood Homeowners

Association asked and received approval from the Commission to have a shared landscape agreement between The Villages and the Ironwood Homeowners Association as a condition of the project's final approval.

Ms. Farrell stated that the Association is now asking the Commission to require the same shared landscape agreement between the Ironwood Homeowners Association and the Centerpointe Presbyterian Church prior to the Commission approving the Church's Conditional Use Permit. She stated that the Association has been talking with the Church but they have not been able to bring a signed agreement to tonight's meeting. She noted that quite a few figures were required, and the Church has indicated its willingness to share in the landscape maintenance for the property adjacent to its facility. She indicated that the Association would like that to be part of the Conditions of Approval to ensure that the shared landscape maintenance will take place before the Church opens the school.

Commissioner Olsen inquired if the parties have determined what the relative sharing will be and if it is 50-50.

Ms. Farrell replied that it is not 50-50. She explained that the Association is actually talking to the management of the senior apartments, The Gardens at Ironwood, because the apartments have not been sharing in the landscape maintenance either and have now agreed to talk to the Association about it. She indicated that the Association's expense for the area is a little over $40,000 a year, and the Senior Active Adult Community is paying the Association $5,000 a year. She added that the Association has requested $5,000 a year as well from the Church with the option of going back in future years when the expenses increase.

Commissioner Olsen stated that it would likely be a three-way split.

Ms. Farrell replied that it will be like a four-way split with the Homeowners Association paying about 60 percent of the costs and the others paying about ten.

THE PUBLIC HEARING WAS CLOSED.

Commissioner Blank moved to make the required conditional use findings as described in the staff report and to approve P11-0953, subject to the Conditions of Approval listed in Exhibit A of the staff report, with the addition of a condition requiring a shared landscape agreement between the parties.
Commissioner Olsen seconded the motion.

Brian Dolan stated that this is a new issue and that staff has not participated in any of the discussions. He indicated that his immediate thoughts are that this was set up differently to begin with and the burden was distributed the way the City thought fit at that time. He noted that staff has always known there was a Church there, and the Church is now asking for an extra entitlement that does not seem completely

unreasonable. He explained that it is difficult to know what the details would be without really having been involved in the matter.

Chair Pentin stated that he was not intending for staff to negotiate the details but just to state that an agreement had to be in place as a Condition of Approval. He added that he does not mean to speak for the Commission, but one of the things the Commission could do is vote to put this item on hold until the next meeting so staff can have the chance to study the shared agreement.

Mr. Dolan replied that he thinks the Commission's condition is fine and that he would like to hear the applicant's response to it.

Commissioner O'Connor noted that the Association had the same request of the Senior Adult Community and inquired how this has handled with that group.'

Mr. Dolan replied that he does not recall.

Commission Blank inquired if the item should be continued.

Ms. Amos advised that the applicant is present.

Mr. Dolan stated that if the applicant has no opposition to the condition, there would be no reason to continue the item.

Commissioner Pearce inquired if there is a problem with attaching that condition to a Conditional Use Permit, specifically regarding the school. She indicated that the only thing the Commission is looking at tonight is the school and not the Church as a whole.

Mr. Dolan replied that he did not think it would be a problem. He indicated that staff knew there was a dialogue going on, which would be a private agreement, and it appears that decision time has come and that agreement did not come to fruition.

Commissioner Olsen inquired if the Commission could simply say that they have to deliver an agreement, with the City staying out of it. He stated that it could be just a requirement for the approval, with the parties negotiating it and delivering a finished agreement, but without the City's involvement in any negotiation.

Commissioner Blank suggested that the Chair consider reopening the Public Hearing to hear from the Church, and if the Church is amenable to putting an agreement in place, this would be a non-issue; but if the Church objects to it, then it would be a different discussion. He explained that what he is interested in is whether or not the applicant is interested in negotiating an agreement, as opposed to getting into whether it is $5,000, or $6,000 or $4,000, which would be a matter between the parties.

THE PUBLIC HEARING WAS RE-OPENED.

Rian Gamble, representing the Applicant, stated that there have been some conversations between the Church and the Homeowners Association. He indicated that the intent was to have the agreement in place prior to this meeting, but the Church did not get the information it needed on time. He stated that the Church is more than willing to enter into some type of agreement with the Association and that the Association has not approached the Church about the $5,000 mentioned earlier. He noted that the Church's Stewardship and Operations Committee, which is its Finance Committee, is actually meeting right now to determine the dollar amount. He added that he is unable to confirm the dollar amount at this time.

Chair Pentin stated that it was fine.

Commissioner Blank indicated that the Commission is not interested in the amount.

THE PUBLIC HEARING WAS CLOSED.

Mr. Dolan stated that Commissioner Blank's motion was fine.

ROLL CALL VOTE:

AYES: Commissioners Blank, Olson, O'Connor, Pearce, and Pentin
NOES: None
ABSTAIN: None
RECUSED: None
ABSENT: Commissioner Narum

Resolution No. PC-2012-12 approving P11-0953 was entered and adopted as motioned.

6. PUBLIC HEARINGS AND OTHER MATTERS

a. <u>PUD-85-08-12D and PUD-81-30-86D and P11-0856, BRE Properties</u>
Applications for: (1) two PUD (Planned Unit Development) Development Plan approvals to construct: (a) a mixed-use high-density residential/commercial development containing 251 residential units, 4 live/work units, and approximately 5,700 square feet of retail space at the property located at the southeast corner of Owens Drive and Willow Road (PUD-85-08-12D); and (b) a high-density residential development containing 247 residential units, 4 live/work units, and a .55-acre public park at the property located at the northern corner of Gibraltar Drive and Hacienda Drive (PUD-81-30-86D); and (2) an amendment to the Phase I and Phase II Development Agreements between the City of Pleasanton and Prudential Insurance Company of America to: (a) extend the term of the Development Agreement to five years from the date of approval of the two Development Plans referenced above; and (b) incorporate approval of the development standards and design guidelines of the Hacienda Transit Oriented Development (TOD) Standards and

Guidelines (P11-0856). Zoning for the property is PUD-MU (Planned Unit Development – Mixed Use) District.

Also consider the Initial Study and Mitigated Negative Declaration prepared for the projects (Site 1, PUD-85-08-12D, and Site 2, PUD-81-30-86D).

Brian Dolan stated that his staff report will be brief and that he will not go through the details of the projects as they has already been presented twice in the past. He noted that one of the remaining issues that resulted from the Joint City Council/ Planning Commission Joint Workshop involved the depth of the live/work configuration. He indicated that a lot of suggestions were made at that Workshop, and the applicant responded to that issue in a way that was discussed at the Workshop, essentially extending the live/work space forward out to 40 feet, thereby creating additional square footage in front of the live/work spaces without removing parking behind them.

Mr. Dolan stated all the slides on the projects' location, architecture, setting, and site plan are available but that it would not be necessary to go through them as the Commission is already familiar with those issues. He indicated, however, that he would like to address one critical graphic submitted by the applicant on the revised plans offering the 40-foot depth.

Mr. Dolan stated that in one location, Building A, the setback from the diagonal parking along Owens Drive would go down to 14 feet. He indicated that staff consulted with urban design consultants, who thought that might be getting a little tight. He added that instead of accepting the full 40 feet on the depth of the live/work space, staff mistakenly stated in its recommendation that that this applies to both Buildings A and B. He noted that this applies only to Building A as there is plenty of setback on Building B. He further noted that this is the only change from the projects that the Commission has seen in the past. He stated that the same thing is proposed on Site 2 and that staff is accepting the full 40 feet on that location.

Mr. Dolan stated that in one corner on Building A, the setback would be at least 16 feet instead of 14 feet, giving up two feet of depth in the live/work space. He indicated that it is acceptable to have a 38-foot depth in this live/work space as staff believes it can be converted to retail should the market demand.

Mr. Dolan stated that the only other matter he wanted to alert the Commission about was some modifications made to the conditions, which staff was not able to provide to the Commission earlier than tonight. He indicated that some of the conditions from the standard conditions of approval were deleted because they do not apply here. He added that two changes were of substantive nature: (1) Condition No. 16: Staff and the applicant have been operating under the assumption that Livermore Amador Valley Transit Authority (LAVTA) was agreeable to the elimination of the bus stop, so until very recently since the conditions were produced for the Commission's packet, staff had written the condition in certain way. He indicated that this had to do with a change of staffing at LAVTA, and there is a difference of opinion. He added that staff will need to

continue to work with LAVTA and is optimistic that this can be ultimately resolved.
(2) Condition No. 84 regarding the photovoltaic systems: This condition is written as if staff is requiring the roofs of the residential projects to have full photovoltaics on them. He indicated that is not the intention and is not a requirement. He added that the applicant is putting a photovoltaic system on the common building areas, the leasing center, and the recreation center, which would meet the City's solar requirement. He indicated that this condition is incorrect and will be eliminated.

Commissioner Olson referred to page 20 of the staff report regarding school impacts and inquired how this would be funded and if whoever is responsible for this funding has been determined.

Mr. Dolan replied that there was a conversation between the applicant and the School District and that it was his understanding is that there is an agreement between them.

Commissioner Olson inquired if there was already an agreement as he did not want this to be something that will bite the developer sometime in the future in terms of funding.

Mr. Dolan replied that he was not certain it was in writing but that this is not required until later in the project. He noted, however, that the applicant and the School District have reached an agreement.

THE PUBLIC HEARING WAS OPENED.

Bob Linder, applicant, stated that Mr. John Wayland from BRE and Mr. Irwin Yau, project architect, are present tonight, and they would be happy to answer questions. He indicated that he agrees with staff's report and that they have submitted revised plans.

Mr. Yau stated that he has the same PowerPoint presentation he has shown in the past and that other than the slide requested at the Workshop that shows elevations with and without trees, there is no new information that Mr. Dolan has not already covered.

James Paxson, General Manager of Hacienda Business Park, stated that on behalf of the Park, he voiced very strong support for these two projects. He indicated that he has been working with BRE for some time and was very pleased with what BRE has brought forward. He noted that he has sent an approval letter to the City for BRE's projects. He added that he is commending BRE, who was given quite a task of converging a lot of divergent requirements, and has done it very well, resulting in two beautifully designed projects. He stated that he was proud of BRE, was pleased to have its projects come to the Park, and hopes that BRE breaks ground soon.

THE PUBLIC HEARING WAS CLOSED.

Commission Blank moved to find that the projects would not have a significant effect of the environment and that the exceptions to the Hacienda Transit-Oriented Development (TOD) Standards and Design Guidelines as listed in the staff report are appropriate for the two sites; to make that PUD findings for the proposed Development Plans as listed in the staff report; and to recommend approval to the City Council of (1) the Mitigated Negative Declaration prepared for the projects, (2) the Development Agreement Amendment to extend the term of the Development Agreement to five years from the date of approval of the two Development Plans, Cases PUD-85-08-12D and PUD-81-30-86D, and to incorporate approval of the development standards and design guidelines of the Hacienda TOD Standards and Guidelines, Case P11-0856, (3) Cases PUD-85-08-12D and PUD-81-30-86D Development Plans to construct two mixed-use, high-density residential/commercials developments, subject to the Conditions of Approval listed in Exhibit A-1 and Exhibit A-2 of the staff report.

Mr. Blank made a comment to the public that the Commission has seen these projects extensively in two previous very detailed Workshops and that the Commission is not going through these projects lightly.

Commissioner Pearce seconded the motion.

Chair Pentin requested that the changes to Exhibit A-1 and Exhibit A-2 as listed in staff's memo be incorporated in the motion.

Commissioners Blank and Pearce accepted the amendment.

ROLL CALL VOTE:

AYES: Commissioners Blank, O'Connor, Olson, Pearce, and Pentin
NOES: None
ABSTAIN: None
RECUSED: None
ABSENT: Commissioner Narum

Resolutions Nos. PC-2012-13 recommending approval of the Mitigated Negative Declaration, PC-2012-14 recommending approval of the Development Agreement Amendment, PC-2012-15 recommending approval of Case PUD-85-08-12D (Site 1), and PC-2012-16 recommending approval of Case PUD-81-30-86D (Site 2) were entered and adopted as motioned.

Commissioner Blank thanked BRE for going through the process and asked that it make Mr. Paxson's request come true as quickly as possible.

b. <u>PUD-25, Mike Meyer and Carol Meyer, Greenbriar Homes Communities, Inc.</u> Work Session to review and receive comments on an application for Planned Unit Development (PUD) rezoning and development plan to construct 50 single-family, two-story homes and related improvements on the approximately 194.7-acre Lund Ranch II property located at 1500 Lund Ranch Road, generally located east of the present end of Lund Ranch Road. Zoning for the property is PUD–LDR/OS (Planned Unit Development – Low Density Residential/Open Space) District.

Marion Pavan presented the staff report and described the scope, layout, and key elements of the proposal

Commissioner Blank noted that one of the questions on the Discussion Points asks whether manmade slopes that exceed a 25-percent grade should be allowed to be developed or be excluded from development. He indicated that he was trying to understand how demonstrative Measure PP was and inquired if it was 25-percent grade or more or if it allowed exemptions.

Mr. Pavan replied that the 25-percent slope is a nominal value, which means 25 percent up the slope is the limit. He noted that the exemptions that Measure PP speaks of refer to developments of less than 10 lots or 10 units.

Commissioner Blank stated that Mr. Pavan's definition of "ridgeline" made a lot of sense to him, but he was a little fuzzy on how the definition of "25 percent" was arrived at. He inquired if there could be some discussion following the public testimony on how that definition was arrived at and what its basis is.

Mr. Pavan replied that in discussions on the application of Measure PP, staff made a comment that slopes over 25 percent typically become inherently more unstable for geotechnical or other reasons.

Commissioner Blank inquired how one can determine when a slope is more than 25 percent, given that it is not expressed in degrees which can be measured in an absolute fashion.

Mr. Pavan replied that it can actually be measured because a 25-percent slope is another way of expressing a one-unit increase in height over a four-unit change or increase in distance.

Commissioner Blank inquired what those units that are being used are.

Mr. Pavan replied that they can be feet.

Commissioner Olson added that it can be miles too.

Commissioner Blank stated that this is exactly his point. He inquired what units the City is using to make this determination. He noted, for example, that one might get a different answer using centimeters versus kilometers.

Mr. Pavan replied that it was based on a review of the applicant's grade and slope analysis map, which was expressed in two-foot contour lines.

Commissioner Blank inquired if the City has done any independent work to corroborate this.

Mr. Pavan replied that staff did.

Mr. Dolan concurred. He stated that before the applicant did the map, they asked what staff would recommend; staff thought that would work, and the applicant followed through and did the work, which staff then checked.

Commissioner Blank inquired if there was any consideration given to having that work peer-reviewed by an independent third party other than the City, given the sensitivity of this whole issue.

Mr. Dolan replied that it could be done.

Commissioner Olsen noted that in Exhibit D, City Council staff report on the "Analysis of the Impacts and Effects of the 'Save Pleasanton's Hills and Housing Cap Initiative," the first paragraph of page 1 refers to slopes greater than 25 percent, and the second paragraph refers to slopes of 25 percent or greater. He indicated that there is a slight difference between the two and that needs to be cleared up.

Commissioner Blank stated that that is a good point and inquired what Measure PP states.

Commissioner Olsen replied that he did not know and was going to ask, but it is either one or the other; it cannot be both.

Commissioner Pearce stated that Measure PP says 25 percent or greater.

Commissioner O'Connor referred to the areas within a lot that are over 25 percent and inquired what the reason was for wanting to include those within the homeowner's ownership, particularly on the two large estate lots, if there is a condition on them that they cannot be graded.

Mr. Pavan replied that he would defer to the developer to answer that question.

Commissioner Pearce stated that the 2008 analysis of Measure PP indicates that a methodology needs to be established to define a measure of slope. She noted that the only other discussion the Commission has had regarding this was the Hana Japan

application, which she quite frankly recalls punting and not making a real clear determination. She inquired if staff believes that through this application, the City has now established a uniform methodology by which to define a measure of slope.

Mr. Dolan replied that Hana Japan was a small commercial project in an area that not a lot of people were concerned about and probably was not the type of project that Measure PP was intended to address but did. He noted that this project at hand is really the first test on a piece of property that people were thinking about when they voted for Measure PP. He indicated that it does not establish a methodology although he believes staff used the exact same method. He added that there are other methodologies that could be used, some of which do much for averaging of slope which would mostly likely result in a more generous buildable area. He stated that in this case, staff went a little more conservative and used a very defendable, reasonable, relatively conservative methodology to implement what is in Measure PP as the Measure does not specify the methodology to be used.

Chair Pentin inquired if staff is comfortable that this particular methodology would withstand a legal challenge that the City is violating Measure PP.

Mr. Dolan replied that ultimately, yes. He added that he did not know if he can think of a more reasonable methodology.

Mr. Dolan stated that he wanted to address one other issue that has come up several times and has become important in this project and certainly in others, including some potential City projects: whether roads are prohibited by Measure PP. He pointed out that Measure PP does not say that they are, but again, staff is taking a conservative approach to interpretation and is concluding that they are.

Commissioner Blank stated that he agrees with staff's position. He pointed out that the exact language of Measure PP is "no grading to construct residential <u>or</u> commercial structures shall occur on hillside slopes 25 percent or greater or within 100 vertical feet of the ridgeline." He noted that it could be very easily argued that streets represent a commercial structure and, therefore, should be included. He added that while Measure PP may not say that streets are included, it just seems that streets do not normally serve just a purely private purpose, especially in a development like this.

THE PUBLIC HEARING WAS OPENED.

Mark Meyer, President of Greenbriar Homes Communities, Applicant, stated that their philosophy at Greenbriar is to build homes and communities that we would be proud to live in and we are certainly proud to visit. He noted that over the past decade, Greenbriar has created or helped create six neighborhoods in Pleasanton: the Chateau and Bordeaux communities in the Vineyard Avenue Corridor, Pheasant Ridge, and Carlton Oaks in the Bernal Property area, and Bridle Creek and Bridle Creek Estates in the Happy Valley area. He stated that Greenbriar is proud to be a community partner and has given the City of Pleasanton more than 300 acres of land, including the Bernal

Community Center, for open space, parks, and other recreational purposes. He noted that members of the Greenbriar family have been involved with and donated to various local organizations, including the Pleasanton PTA Council's Reflections Program, the Tri-Valley Community Foundation, and the Pleasanton Partnerships in Education Foundation.

Mr. Meyer stated that they are pleased to be in front of the Commission this evening to bring forward this new community at Lund Ranch. He noted that things had changed since their original application way back in 2003, and they wanted to know what the community was thinking; so in 2009, they began community outreach by hosting a pair of community meetings, mailing invitations to 900 households including Sycamore Heights, Bridle Creek, Ventana Hills, Bonde Ranch, and everywhere in between, including all the Junipero area. He continued that from that feedback, they created a site plan of 53 homes and hosted an open house in 2011 to show the community a plan that reflected the neighborhood comments of preserving open space, minimal development, pre-determined house sizes, and respect for the Hillside Ordinances. He added that they sent another 900 pieces of mail inviting the community to the open house, and based on the feedback of the first meetings, also placed ads in the Pleasanton Weekly. He noted that at that time, they promised another meeting to show the house designs themselves so the community could see that the very-high-quality homes being proposed would fit within their neighborhood. He indicated that they also created a virtual open house on the Web showing the same exhibit so that anybody who was unable to attend the meetings could see them anytime.

Mr. Meyer stated that in August 2011, they held yet another open house showing the 53-home plan again along with the house designs; and again they placed an ad in the Pleasanton Weekly and dropped off flyers at the homes in Ventana Hills and Bonde Ranch. He added that since those meetings, they have met in smaller groups with the Middleton Place neighbors, the Ventana Hills Steering Committee, and with individual neighbors directly adjacent to Lund Ranch. He noted that the vast majority of the comments received have been positive, specifically commending them for their communication and outreach efforts, the small development footprint, the large amount of open space and publically accessible trails, and the beautiful homes.

Mr. Meyer stated that the plan before the Commission tonight is now down to 50 homes, a substantial reduction from the original plan of 149 homes. He indicated that it was the original concern they met, the passage of Measure PP, and the feedback from the community meetings that led them to rework the site plan and street connections to create an environmentally sensitive plan with a small footprint that would preserve most of the land for open space and publically accessible trails, building on the flattest part of the property that is currently accessed from Lund Ranch Road, the historical entrance to the property for about 90 years.

Mr. Meyer then addressed a few issues that have been raised by the Ventana Hills Steering Committee regarding access. He stated that on page 21 in the staff report, it states that Shapell Homes agreed in the early 1990's to use its best efforts to secure

right-of-way on the Lund Ranch property in order to meet an agreement they made with the neighbors at that time. He noted that this right-of-way was never secured, and in the applicants' meetings with neighbors in Bonde Ranch, the neighbors have indicated their preference to continue their access to their homes through Ventana Hills.
Mr. Meyer indicated that they support this request. He then pointed out that on page 22 of the staff report, it states that Lund Ranch II was never part of the North Sycamore Specific Plan area.

Mr. Meyer then introduced Carol Meyer, co-owner of the company, and several professionals who are available to answer questions: Chris Kinzel from TJKM, project traffic engineer; Mark Falgout from RJA, project civil engineer; and Chris Cebrian, project attorney.

Commissioner Blank noted that Mr. Meyer mentioned the high quality of the homes that Greenbriar would be building and inquired how much the homes would sell for.

Mr. Meyer replied that he did not know for sure, given the market since 2005 or 2006 to today, but he could give a reference point. He stated that the Greenbriar homes, with their lot sizes, compared to a house of the same size in the immediately adjacent neighborhood, would likely sell for at least 10 percent more.

Commissioner O'Connor commented that with reference to Greenbriar's list of outreach, there appears to be about six community meetings, not counting the private meetings with the Mayor and Councilmembers. He indicated that he attended the first meeting and signed up to receive any correspondence on any future meetings, and he received information for only one additional meeting, which he attended and at which he again signed up for notification of future meetings. He asked Mr. Meyer to pay closer attention to how Greenbriar's outreach is done because he knows he was not invited to the other four meetings although he was on the notification list.

Mr. Meyer apologized and indicated that he certainly thought Commissioner O'Connor was invited.

Commissioner O'Connor stated that having attended two of the meetings, he believes he had enough input, but there are probably a lot of people in the community who signed up and did not get invited as well, which would be a concern.

Greg Cordtz stated that his property backs to the proposed development and that looking out of his backyard, he can see at eye level, a 15-foot cut into the hill in the Ventana Hills development. He noted that Greenbriar is proposing both single- and two-story homes and expressed concern about having a 45-foot wall behind his home. He asked if his understanding is correct that Measure PP provides that areas where there have been man-grading are exempt.

Commissioner O'Connor replied that he thinks that has not yet been determined.

Mr. Cordtz proposed that a barrier be installed, like the rest of the developments have had, which are due to the man-made cuts from those developments. He indicated that he does not care to see the two-story, 4,700-square-foot houses on the lots right behind his going 40 feet up in the air. He asked the Commission to take that into consideration.

John Bauer stated that he lives in the Ventana Hills community and works in the industrial portion of Sonoma Drive. He indicated that he often walks to work, so he is very familiar with his neighbor's comments regarding the existing traffic going down Junipero. Street. He noted that of the 32 comments received by staff, 30 related to existing traffic, and he did not see in any of the presentations where the City Traffic Engineering weighed in on the subject. He pointed out from the information he requested and received from Traffic Engineering staff that data points were collected right by the stop signs at San Antonio and Junipero Streets, using a benchmark of 33 miles per hour. He emphasized that approximately 100 feet from the stop sign, 225 vehicles out of 1,500 trips per day, or 15 percent of the traffic, exceed 33 miles per hour, which is 30 percent greater than the posted speed limit.

Mr. Bauer stated that, as his neighbors have attested to in their comments, there is currently a total disregard for the two stop signs in the area, the one at a controlled intersection and the S-turn going through the park where he lives. He noted that he believes the problem is not necessarily the number of cars but the disregard in this behavior of cut-through traffic as well as the current people using the street. He added that he would not have a problem if the homeowners of the proposed homes come through Junipero Street and in front of his house, all travelling at 15 miles per hour and stopping at the stop signs. He suggested that Traffic Engineering Department weigh in on this subject and possibly look at alternatives, such as at the Bernal Avenue/Sunol Boulevard intersection. He questioned why people are coming through their neighborhood, making a left turn from Bernal Avenue onto Independence Drive, and racing down Independence Drive and then down Junipero Street.

Commissioner O'Connor asked Mr. Bauer if he is experiencing this amount of traffic and these speeds where he lives, and if it is greater in the morning when the cut-through traffic would be happening.

Mr. Bauer replied that as he sits in his front yard with his dog in the morning with a view directly across the park, he sees people racing down three or four cars at a time, so obviously they are taking a left off of Bernal, racing down Independence Drive, probably running the stop sign at Independence Drive and Junipero Street, racing through the S-turns at an exceedingly aggressive speed in front of his house, and racing down Junipero Street.

Commissioner O'Connor inquired if this is a bigger problem and more profound in the morning with the cut-through traffic as opposed to the rest of the day.

Mr. Bauer said yes. He noted that he sees the people driving their kids to school and running the stop signs. He added that almost 1,500 cars go down Junipero Street, and he wonders if the street is designed for that.

Chair Pentin called for a break at 7:25 p.m. to allow staff to fix the technical problem with the sound system, and thereafter, reconvened the regular meeting at 7:37 p.m.

Patricia Long stated that her property backs onto the proposed project site and she wanted to formally register concerns over grading in the back because that hill has already been cut in. She indicated that they have a pool and a retaining wall in place and is very concerned about what goes in behind them; she would also like to make sure that grading is carried out properly so that there is no damage to their site. She added that she would like to maintain their quality of life and would like to have a legitimate amount of space, such as a greenbelt, between their properties. She also requested that a single-story house be placed behind her home to maintain privacy.

Ms. Long expressed concern about the traffic coming through her area. She indicated that as it was mentioned that traffic through Junipero Street and Independence Drive grows in the morning, it also grows in the evening. She added that a lot of residents in the neighborhood traveling through those streets have taken to slowing down to try to keep that traffic at bay.

Justin Brown stated that he has lived in Pleasanton for about two-and-a-half years and that his primary concern, as some have echoed, is traffic. He indicated that he does a lot of walking around the neighborhood and sees people in the evening rolling the stop signs and running up Junipero Street to Independence Drive to get to Livermore, and doing the same in reverse in the mornings. He noted that he sees excessive speeding, and the residents of the streets obviously tend to be the ones that stop at the stop signs, and the non-residents tend to be the ones blowing through the stop signs.

Mr. Brown stated that he generally supports the position of the Ventana Hills Steering Committee that the solution is not to discourage the use of Mission Hills Park, which is always very well occupied. He indicated that there is a lot of safety concerns with a lot of parked cars along the road and lots of kids walking across. He added that he has a two-and-a-month old baby and he wants to make sure that he can preserve his access to the park and not have to worry about an increase in traffic. He stated that another major concern of his is the past agreements to route the traffic to the east in order to access the highway and the increase in traffic down Junipero Street to go to Safeway and Raley's. He added that he finds it deeply concerning that traffic really was not mentioned in the staff report, especially since it is one of the primary concerns of the general public and all the neighbors behind him.

Vicki LaBarge stated that she has lived in Pleasanton for 28 years and watched the development in Ventana Hills go up. She indicated that Ventana Hills was never supposed to come down Junipero Street but it does, and Mission Drive was supposed

to be the primary route; Junipero Street was never built as a through street, and now it will be subject to more cars.

Ms. LaBarge stated that she never received any notice in the mail inviting her to attend a meeting where they could express their concerns about the traffic. She encouraged the Commission and staff to come to her house and have coffee with her at 7:00 a.m. to see the traffic that comes down her street until about 9:00 a.m. when all the moms have dropped off their kids; and then come back between 3:00 p.m. and 6:00 p.m. to have iced tea and dinner and again watch the speeders come down her street. She stated that she has taken her own test movement, purposely backing out of her driveway and drive 15 miles per hour down her street during busy times in an attempt to try and slow down the traffic. She added that she has summoned the Police Department to come and sit on Junipero Street to monitor the traffic and issue citations. She noted that the problem is that the Police Department has decided that the best place to park is at the stop sign, but people tend to not speed up when they approach a stop sign.

Ms. LaBarge stated that they do not need more speeding traffic on Junipero Street. She indicated that they have some options: (1) Speed bumps, which they have discussed with the City Council about ten years ago. She indicated that they do not want to put speed bumps as it is a hazard to the Fire Department, and they do not want to have any kind of restriction with the Fire Department trying to get to their homes. (2) Additional stop signs. The two stop signs on Junipero Street, which was a dead-end street years ago and was never even supposed to intersect with Sunol Boulevard, were installed because of the Junipero Street residents' complaints about the speeding traffic. (3) Junipero Street could be made a non—through-traffic street like Dolores Drive. She requested the Planning Commission to take a serious look at the traffic on Junipero Street and come up with an alternative solution.

Andy Albritten stated that he has been a Pleasanton resident since 1988 and an original member of the Ventana Hills Steering Committee, was part of the negotiation in 1991 with Shapell Homes and the City in connection with the Bonde Homes development process, and a signee to the letters in 2003 and in 2011 to the Planning Commission. He indicated that the majority of concerns they have are that the traffic coming through their neighborhood was never intended to go through there. He stated that he has been receiving communication from the developer, as Mr. Meyer said, but it has all been unilateral. He noted that when the residents said that there has been an agreement with the neighbors, Mr. Meter replied that was then and this is now; and when the residents said there is a problem with traffic, Mr. Meyer said it does not matter. He expressed concern that there is a unilateral communication going on, that this is the plan, this is the way it is going to be, and this is the way we are going to push it through.

Mr. Albritten stated that he has neighbors in Sycamore Park, Mission Hills Park, and down Junipero Street who have expressed the same concerns. He indicated that it is like a funnel, with all the traffic from his neighborhood going through Junipero Street down to Raley's, to the Middle School, and to the Elementary School. He added that that the traffic coming down Junipero Street through Independence Drive and Lund

Ranch Road is really unacceptable. He noted that nothing like this was conceived in 1991 and yet traffic has been routed over the east/west collector on the Sycamore area.

Mr. Albritten stated that the other thing he wants to make sure is that there is a greenbelt around the neighbors from an existing standpoint. He indicated that the Bonde development residents are above his home, and they were very successful in negotiating a compromise with Shapell Homes that was a win/win for the existing neighborhoods and the City and for the developer. He added that he does not have too much trouble with the traffic coming down from that development. He noted that the development Greenbriar is proposing has no park. He indicated that while Mission Hills Park does not have formal athletic fields, it is used very extensively as practice fields for soccer and soft ball games by all of the neighbors. He added that the S-curve there as Junipero Street comes around the Park is very, very dangerous that he has to slow down to 15 miles per hour. He noted that there are continuous open-ended traffic, children, and pets, especially on a Thursday or Friday afternoon, and it is not acceptable to take additional traffic down that street.

Mr. Albritten stated that the Sycamore Creek Way and Sunset Creek Lane neighborhood already have traffic-calming devices in place: there are roundabouts, the streets are wide, and the streets are completely deserted in the morning and afternoon and around the evening commute time. He recommended that the Planning Commission take a close look at the traffic and route it around the Ventana Hills neighborhood.

Wayne Strickler handed the Commissioners copies of photographs describing what Mr. Albritten was describing regarding the condition of traffic around Ventana Hills Park. He indicated his support for Mr. Albritten's comments. He then gave the Commission a brief background on the Ventana Hills Steering Committee, which was were formed 20 years ago by the City Council, consisting of five residents living in different sections of Ventana Hills.

Mr. Strickler stated that he has reviewed all the letters that were submitted and they sound pretty uniform as far as what their issues are: children , traffic, rural streets, heritage oak with brick pavers, and endangered animal species. He added that he thinks the main issue is included in the letter submitted by the Ventana Hills Steering Committee on October 27 describing the agreements that they negotiated with Shappell Homes and were put in place regarding what the Committee's positions are and what should take place in the future. He noted that the Committee's position is to negotiate with the developers in order to avoid these kinds of confrontational issues, and in spite of their attempts and those of the Meyer family, they have had only one meeting, and would obviously like to be able to get together more frequently to work on issues, including the building of the east/west collector.

Mr. Strickler stated that he has documentation from the CC&Rs from the original builder's packets that were furnished to all the people who have purchased in both the Sycamore and the Bridle Creek area, which substantiates the Committee's position

regarding what should have been taken into account. He added that he also has pictures of signage which will also support their position and which will clearly demonstrate that these signs have been in place for years, showing that both Sycamore and Bridle Creek are the designated areas, and that there is absolutely no signage along Lund Ranch Road indicating that this is to be a connection to Lund Ranch II.

Randy Harris, representing the Foley family, stated that the Foley family's 540-acre property abuts Lund Ranch. He indicated that they were in discussions years ago, prior to the passage of the Measures, to work with the City to locate a park on the Foley property. He noted that there is to be a limited development on the property, and the Foleys would still like to work with the City to help locate a park in a very nice location within their property. He requested that the Commission take that into consideration as the City moves forward with this development.

Laurie Saxton stated that she totally agrees with everybody from Junipero Street, that everybody cutting through Independence Drive during morning, afternoon, and evening traffic is a nightmare. She indicated that she is directly impacted by this upcoming development that might go through Ventana Hills because the road that goes up to Bonde was supposed to be a temporary road. She added that it is a very steep road and when she is trying to back out of her driveway, she looks back and before she can pull out, somebody comes flying down Hopkins Way, and drivers slow down because it is a steep hill but they do not stop at the stop sign between Hopkins Way and Independence Drive. She indicated that these people are not part of the neighborhood and they totally disrespect the neighborhood laws in terms of speed limits and stopping at the stop sign, so it is quite a dangerous situation even for the people who live there. She also indicated that Lund Ranch Road was never supposed to be the access road and was never ever in any previous plans; in fact, it was totally taken out of the picture. She noted that it is a very steep hill and is an emergency access road.

Jay Hertogs stated that he lives in the neighborhood but does not know anything about the Lund Ranch development because he has never received any cards about the development. He indicated that the City's traffic study of their street states that 2,400 cars go by daily, and he expressed concern that this development would definitely drop another 300 to 400 more cars going by their house, which is ridiculous. He noted that there is so much traffic in the morning between 6:00 a.m. and 9:00 a.m. that his wife cannot even back out of their own driveway; and in the evening, they cannot even sit in the living room with the window open in the summertime when it is a nice evening because there is so much noise that they cannot even read or hear the TV. He asked the Commission to really consider having the traffic go somewhere else.

Scott Shafer stated that he has lived in Pleasanton for about 25 years and in the area for the past nine years. He indicated his support for Mr. Albritten's statement about the Committee and noted that there is a traffic concern, but he would like to bring up other issues specific to his property.

Mr. Shafer stated that he owns the land that has the existing creek that actually bisects the two properties and wants to make sure that the water is handled correctly. He noted that with the development that went in behind them, he has the water level go up and down, and he is not sure that is supposed to happen. He indicated that he believes the speed of water getting off the Lunch Ranch II property and actually getting to the creek is going to increase substantially, and obviously, that's when erosion occurs. He stated that he was aware that the other developers have tried to do certain types of procedures to actually slow the water down, and he has actually walked up the creek and nothing has been done. He indicated that he would like to see what the developer is proposing to help with the speeding water and the erosion that is potentially going to occur because of the development.

Mr. Shafer stated that within the first week of their moving in, the developer of the property came to his house and put out the plans for about 149 homes and the road up around where it was supposed to go. He indicated that he talked to the City planner at the time and was told that that is the way it was going to go. He noted that if the developer did put the road up to Bridle Creek or Sycamore, it almost sounds like this 25-percent grade could be going on for miles. He further noted that it does not appear like there was any explanation given as to how much that road would be violating Measure PP, and he asked how much of that road would actually by impacted by Measure PP, if it is over ten feet of the road or the entire road. He added that he thinks at some point, that decision has to be made

Mr. Shafer stated that there is a standing agreement that was done before Measure PP and inquired if Measure PP just supersedes any agreement that was ever made. He further inquired why that agreement does not supersede Measure PP even though the Measure was voted in. He indicated that he voted for Measure PP but assumed that it would apply to houses and not necessarily roads because he never assumed that a road would actually go up on a hill.

Chris Coleman stated that he has lived in the area since 1999, and the proposed development is just behind his neighbors' homes. He indicated that his principal concern is traffic and that he is not surprised to hear some pretty compelling comments here tonight. He added that as a family, he, his wife, and his 16-year-old daughter who just got her driving permit, collectively will be driving down the road and the S-curve at least six to ten times a day. He noted that so many speakers have talked about how that is already a problem, and with 50 more homes, it will be much, much more.

Mr. Coleman stated that a second issue is what Mr. Shafer referred to regarding how they can avoid putting over these agreements and just set them aside. He noted that Sycamore Creek Way is much more accommodating to traffic than Lund Ranch Road or Independence Drive. He requested the Commission to please look very carefully at these two issues and try to honor the former Commission members, the City Council, and the residents who have been there from the beginning.

Lastly, Mr. Coleman stated that while staff feels good about some of the assumptions, he would support an independent and pure review of the analysis and methodology regarding the 25 percent slope, given the circumstances and the traffic impacts here.

Jimmy Ko stated that he is a new homeowner in the area and wanted to give his personal perspective. He indicated that his children go to the park all the time, and with the cars coming around the curve, it does seem like a ticking time bomb. He stated that he drives around that curve when he drops his son off to pre-school, and he finds that even going the speed limit is too fast. He expressed concern that with the existing traffic, plus any additional cars, and all the children in the park, that road is an accident waiting to happen if no changes in the traffic design or speed mitigation is made. He noted that the City staff did a speed detection there for a few days, which helped. He added that he wholeheartedly endorses what the Ventana Hills Steering Committee members have stated regarding the traffic, the park, and the green space.

Doug Whistler stated that he did not know about these meetings until two days ago when someone brought him a flyer and that he was not planning to speak until he heard some of the issues being raised. He indicated that he lived for 20 years by Amador Valley Boulevard in Dublin which had a horrible cut-through traffic and speed traffic issues, and he did not realize that Independence Drive and Juniper Street has that much of a cut-through problem as well. He added that they had to go to the City Council also under many circumstances, just as these folks are doing here, to talk about their cut-through traffic and speed problems. He urged the Commission to listen to the residents and not just to the people who have an interest in this project.

Mr. Whistler noted that Mr. Shafer raised an interesting point about water problems and drainage. He indicated that there is a drainage channel that runs between Junipero Street and Mission Drive which leaves his yards squishy especially during a wet winter such that he cannot even walk on them. He noted that additional drainage coming down the hillside resulting from additional paving and new homes up there would cause an even greater problem. He urged the Commission to take that into account as well.

Matthew Nelson stated that he has lived in Pleasanton for 18 years, and three years in the property adjacent to Mr. Shafer, on the other side of the stream that comes through, the one with the old oak tree with pavers in front. He stated that the pavers are there not for decorative purposes but because of the tree's root system as the tree is extremely close to the street and may be harmed based on the amount of cars, pollution, and traffic accidents on the street. He indicated that the tree is irreplaceable and is the primary reason he picked that house. He asked the Commission to check on the traffic counts because he believes that was done during a bike-to-school or service day, which may have caused some of the numbers to be artificially low. He added that there have been two occurrences of car-versus-tree accidents in the area the past year that he is aware of.

Mr. Nelson raised the issue of construction traffic coming right by the playground at Mission Hill Park, as well as the ecosystem in the area where he has encountered

animals such as possums, raccoons, bobcats, feral cats, alligator lizards, tarantulas, cows, turkeys, and hawks. With respect to the issue of water run-off mentioned by Mr. Shafer, he stated that his house is located where Lund Ranch Way actually deposits a ton of silt and rocks in front of his house due to the elevation change between the Lund Ranch II property and his own. He expressed concern about the absorption rate and indicated that water rushes down where his house is and he has go out there every winter with a wheelbarrow and actually pick up probably a half-inch thick of silt. He added that when the new development puts in gutters and drains lines feeding to the street, there would be a huge amount of water-runoff coming through and ending up either in the stream adjacent to the property or right in front of his property.

Julie Lewis stated that she has lived in the area since 1981 and has seen a lot of changes with new stop signs and has had her share of trees and intersection accidents in that area. She indicated that there is another slight curve by her house, and she is now at the point that when she tries to back out of her house she can look and think nobody is coming, but by the time she is backing out, people are racing around that curve. She added that she has actually had people not slow down or stop for a moment to wait for her to come out of her driveway; they try to get around her on either side instead. She stated that most of the things she has heard tonight reflect everything she wanted to say. She indicated that she really appreciates the opportunity to bring these issues to the Commission's attention and hopes that the Commission will really give this traffic issue great consideration and do whatever proper studies need to be done to route the traffic in the right way.

Kay Ayala stated that she is here to say that every agreement that was made previous to this plan coming forward should be abided by, and that entails the agreement with Shapell Homes and with those neighbors, and the agreement with the voters for Measures PP and QQ. She indicated that she saw an analysis of Measure PP in the staff report but there was none on Measure QQ. She noted that the City Council, in all its wisdom, put a competing measure on the ballot, and it was agreed upon that Measure PP passed with the most votes. She added that, not to be argumentative, they said that Measure QQ could be put in there if they wanted to because it basically said that all of the protections of slopes in the General Plan were embedded in that and should be abided by. She noted that the staff report did not mention those parts of the General Plan that revolve around slopes and indicated that she thinks this is a plan that the Commission should slow down and take its time with as it has multiple implications with the neighbors' traffic and the voters of Pleasanton. She stated that she heard someone mention an independent peer review and thinks that is an excellent suggestion. She added that she also liked the Foleys' comment about a park and is hopeful it will be a 541-acre park.

Marty Inderbitzen stated that it is stunning that of all the speakers tonight, there was only one who talked about Measure PP and nobody really talked about Measure QQ. He indicated that it strikes him that the overwhelming concern staff and maybe the Commission has over how they are interpreted may be misguided as it appears like people are more concerned about the project's direct impact on their neighborhoods.

Mr. Inderbitzen stated that in relation to the discussion questions in the staff report, residential and commercial structures mean streets. He noted that it is not obvious to him, but he suspects that it is also not an obvious interpretation by a lot of people in the lay public who would read that Initiative. He added that he frankly does not think the Commission has to make that interpretation, that it is just as open to the interpretation that it does not apply to streets, and that it gives the Commission an opportunity to avoid a lot of potential missteps and unintended consequences as this property and maybe others come forward in the future.

Mr. Inderbitzen stated that he thinks the overall intended purpose of Measure PP, at least the way the public would have interpreted it, is that it had to do with views of the ridgelines, and there are lots of roads and trails and access ways that can be put across properties that have no impact on the views of the public throughout the City. He noted that getting to the Foleys' 500 and some odd acres behind the Lund Ranch will require a road or a trail, and if roads are prohibited because of Measure PP, that may not be possible; it may even not be possible to get to a park that somebody might choose to improve on some other piece of property. He continued, however, that just to allow a roadway to get to either a developable residential site or a commercial site or to a park and to have to get there through some strained interpretation that relies on a ranch road that somebody put in 20 years ago or 200 years ago is unnecessary.

Mr. Inderbitzen stated that another point he would like to make is that he finds it interesting that the approach taken to try to interpret these guidelines is one that looks solely at this piece of property and, to a large extent, ignores Measure QQ which was also approved by the members of the public. He indicated that he thinks the Commission has the mandate to reconcile the policies in both those Initiatives as well as the other policies in the General Plan. He added that his view would be that when all those things are brought together, there is an intent to really protect views of the main ridge in Pleasanton, the other ridges in Pleasanton, and the southeast hills, and not necessarily to focus sort of myopically on individual pieces of property and come up with these tortured interpretations of how grading would be managed there to allow the property to develop. He stated that it might work for the Meyer family and he hopes it does because the Meyers deserve to be able to develop their property; however, this sets a precedent for other pieces of property in the future.

Mr. Meyer stated that the issues raised tonight regarding Measures PP and QQ, traffic, foliage, drainage, and how streets are to be treated relative to the Measures and to crossing more jurisdiction and open space lines will have to be picked up in the Environmental Impact Report and that he does not have a problem with that.

Mr. Meyer indicated that he wanted to address the seven discussion questions posed by the staff to the Planning Commission and share their thoughts on them:

- They have no problem with the methodology; however, they do not know what it should be.

- With respect to the question of having open space in some lots beyond what would be graded, their intent is to create an area of privacy and develop lots that back up onto the hill so that while they may remain beyond the fence, they can include drip irrigation to provide privacy to those homes.
- Man-made slopes have to be taken care of and ought to be exempted from the 25-percent rule.
- As to the grade differentials, they would much prefer to build on a flat pad; houses would be less visible as opposed to the stepped pads with large backs where the houses are larger and more obvious.
- Their preference is to for Middleton Place to stay open.
- They do not think an amendment to the North Sycamore Specific Plan is necessary because Lund Ranch is not part of that Plan.
- If the Commission concurs with the determination that streets are covered by Measure PP, they will have more streets connecting to Sunset Creek Lane, and they will have to cross over water and jurisdictional lines, which seems to be opposed by the City's General Plan.

THE PUBLIC HEARING WAS CLOSED.

Commissioner Blank stated that he did not actually keep count of the number of speakers but maybe at least 15 speakers brought up the issue of traffic. He noted that when he was reviewing the list of questions and comparing it with his notes, it struck him that nowhere in this list is the Planning Commission asked to provide its perspective on traffic or traffic-calming measures or traffic studies. He asked staff if this was an oversight or if the Commission can add a question to address that.

Mr. Dolan replied that staff wants as much feedback as possible from the Commission. He indicated that staff will have a very good handle on what the traffic impacts will be and that there will be a complete analysis as the project moves forward. He noted that this is the first venture into this plan, and implicit in the questions about access are questions about traffic. He added that it is suggested that there should be more access points, then traffic will have to be distributed to different locations, and that is really one of the fundamental questions that should be dealt with. He noted that there is really not a lot that can be done about reducing the amount of traffic unless the project is reduced. He indicated that there are challenges to the other connections, and he does not know at this point exactly how much 25-percent slope they would have to go over to get these connections. He indicated that it is clearly physically possible to get there without doing very much at all; there is a creek and open space and some environmental impacts to it, particularly on Sunset Creek Lane, but it is clearly physically possible. He added that he thinks it is also true that if the plan included those connections to begin with, there might have been an entirely different audience here tonight.

Commissioner Blank commented for the public present that this is a workshop and so no decisions are going to be made this evening. He added that this is an opportunity to bring forward issues for staff to consider, and staff never has a shortfall of input from the Commission or from the public.

Mr. Dolan stated that staff has not even gotten into its analysis yet.

Commissioner O'Connor noted that with respect to traffic, one of the things Mr. Dolan mentioned was that with traffic engineering, traffic-calming measures could be discussed as they was done in other parts of the City. He indicated that there is a lot of cut-through traffic in this neighborhood today, and staff could certainly look at closing left turns off of Bernal Avenue onto Independence Drive between certain hours, the way it was done in the Vineyard Avenue corridor, turning up into Sauterne Way.

Commissioner Blank stated that there are alternatives to speed bumps.

Commissioner O'Connor stated that there are speed humps instead of speed bumps. He noted that over by the Mohr Avenue area on Cameron Avenue, curves were actually put in the road to slow people down. He added that actually narrowing a road and curving it encourages traffic to slow down, as opposed to big wide streets that straightaway encourage people to speed.

Mr. Dolan stated that he is certain traffic-calming measures will be part of whatever comes out of staff's analysis; however, this will be something staff would not consider as fundamental questions and would be addressed a little bit further down the road. He noted that the issue of where it should connect to the rest of town is a fundamental issue, and Commission feedback on direction regarding whether or not Measure PP can be interpreted to allow such connections, the issue of the agreements, and what the Commission ranks higher in the priority will be helpful to staff as the application is processed.

The Commission then considered the discussion points.

1. ***Does the Planning Commission concur with the methodology used for the Lund Ranch II development that defines the Measure PP slopes, ridgelines, and development limit lines?***

Chair Pentin stated that he is trying to understand the methodology and thinks that it sounds fair, something that as the application moves forward does extend beyond this one property. He added that it is something that will have to be considered down the road for other properties and, therefore, it has to be a solid methodology. He noted that the biggest questions on it for him are if the Commission is comfortable with this and if this is what should be used.

Commissioner Blank stated that he would generally concur with those comments. He noted the original suggestion he made before any of the public testimony about having this methodology peer-reviewed by a non-interested third party, meaning someone who is not from Pleasanton, who was not involved with Measures PP and QQ, someone who would strictly look at the methodology. He added that he liked what he heard about the methodology in terms of its calculations because it seems logical to him; however, he is

not a specialist in that area and thinks it is important to have someone come in and say that this is a good methodology.

Mr. Dolan stated that he must be mistaken because he thought Commissioner Blank wanted someone to check the actual calculations as opposed to the methodology.

Commissioner Blank replied that his preference would be to have someone weigh in on both.

Commissioner Olson stated that that is his view as well and thinks the methodology needs to be peer-reviewed.

Chair Pentin agreed.

Mr. Dolan stated that there is a number of ways this can be interpreted. He added that he thinks Mr. Inderbitzen raised some good points about there are other ways to do it. He added that staff can get ten people and get ten different opinions.

Commission Pearce stated that that might be valuable information for the Commission to have just going forward.

Mr. Dolan indicated that he understands that; however, as he mentioned earlier, he could get multiple opinions and the breadth of approaches is going to be very broad.

Commissioner Olson stated that he would like to see multiple opinions, and it would be the job of the Commission to resolve that and come up with a decision on how to proceed.

Mr. Dolan noted that the opinion of an engineer is not necessarily the correct source of review. He indicated that it is kind of a common sense approach. He stated that staff will give that some thought and provide multiple opinions; he just is not sure who to ask as the interpretation of ten lay people is just as valid as an engineer's interpretation of that language.

Commissioner Olson noted that based on what has been said tonight, it is clear that there is a grey area here that needs to be resolved.

Commissioner O'Connor stated that he thinks there may be differing opinions when it comes to the methodology of determining what is a ridge or a ridgeline, but it should be pretty clear for civil engineers what is 25 percent and what is not on a topography map, that nine out of ten should be pretty close to one other.

Mr. Dolan noted that staff does not have a problem confirming what is 25 percent; that is a purely technical exercise.

Chair Pentin stated that he thinks this goes beyond just the methodology for the slope. He noted that Questions 5, 6, and 7 likewise required an interpretation of whether streets are covered by Measure PP. He indicated that he would like someone to review both or all of the effects of Measure PP on something like this.

Commissioner Blank stated that his request for peer review was whether or not the City is comfortable with the 25-percent slope, whether the two-foot increments is the right increment, or should it be one foot or three feet. He indicated that he would like to see that peer-reviewed so that when the application comes back, there are no arguments. He added that he does not want to consume the Commission's time then dealing with highly technical arguments about whether it should be one foot or two feet because that would not advance them at all.

Commissioner Pearce stated that she would argue that this has broad implications and not only on simply Lund Ranch. She noted that this is the first property the Commission is considering that has these kinds of implications and certainly will not be the last. She added that she does not want to continue to have this discussion and try to piecemeal this together property by property. She indicated that she would prefer spending the time now so that the Commission can move forward with a clear indication of what the methodology is that everyone is comfortable with.

Chair Pentin and Commissioner Olson agreed.

2. ***Does the Planning Commission concur in allowing natural terrain, covered by the applicable land use restrictions to prevent grading and development, to be incorporated in private property, or should the proposed lot lines be revised to include the natural hillside areas?***

Commissioner O'Connor stated that he does not have a problem with steeper grade areas being within somebody's private control as long as there are protections within the deed that they cannot go out and just start grading away.

Commissioner Blank stated that he thinks it is not just grading but also about additions, that they cannot build a barn or an astronomy observatory or something else.

Commissioner O'Connor stated that he would like protections in place.

Chair Pentin stated that the only question he has came from the applicant and that was the mention of putting trees and drip lines. He noted that it is not considered grading and questioned whether adding trees and drip lines would constitute putting something man-made or doing something on the property.

Mr. Dolan replied that he does not think that would be prohibited.

Chair Pentin agreed but noted that it is something man-made.

Commissioner Pearce concurred.

Commissioner O'Connor added that in a general sense, it would then not be a problem if someone wants to have horses.

3. ***Does the Planning Commission concur with allowing these man-made slopes that exceed a 25-percent grade to be developed, or should these areas be excluded from development?***

Commissioner Blank stated that he thinks they should be excluded from development primarily because Measure PP does not state "25-percent grade except man-made slopes." He indicated that he is kind of torn without getting into an interpretation of Measure PP, since he was not the author of the Measure, and without trying to figure out what all the voters were thinking of. He noted that the slope was man-made 30 years ago and has now become part of the landscape.

Commissioner Pearce questioned what the intent was.

Commissioner O'Connor commented that things may get worse if they are put it back to their original state as how would anyone know what the original was. He added that in general and not only for this property, the Commission would find itself trying to second guess whether something was really man-made or not, and Measure PP does not give it as an exception.

Commissioner Blank stated that is why he is leaning toward leaving it alone if it is over 25 percent and if it is okay if it is less than 25 percent, no matter how it got there.

Commissioner O'Connor agreed.

Commissioner Pearce stated that she was not sure.

Chair Pentin stated that if it is man-made, civil engineers who look at these cuts would be able to determine what has been moved and what has been created versus what was there or what should have been there. He added that he believes the Commission was right in determining that the slope on the Hana Japan site was man-made; however, he indicated that he feels it is problematic to give one answer to one and a different answer now to another.

Commissioner O'Connor noted that the Commission made it very clear that it was not setting a precedent when that issue came up with Hana Japan.

Commissioner Olson stated that his interpretation is if the slope was man-made 25 or 30 years ago and has at this point found its natural resting point, and if it's 25 percent or greater, it needs to be left alone.

Commissioner Blank stated that he likes that interpretation and questioned what would happen if the slope was done three weeks ago and it is 25 percent.

Commissioner Olson stated that he does not want to lose sight of an issue and pointed out that it was obvious to him tonight that there is a big traffic problem here regardless of whether this project goes through or not. He noted that there are some things that need to be done straight away to address the traffic problem on Junipero Street and other streets in the area. He indicated that he feels strongly that additional access to the project should be developed, and he thinks it is acceptable to create those additional access to this project even if it involves building a road on a slope that is 25 percent or greater. He added that if the project is left the way it is, the existing traffic problem would be exacerbated.

Commissioner Pearce stated that she thinks the intent of Measure PP is not natural slope versus man-made slope but rather, issues of visibility and creating structures on any slope.

Commissioner Blank stated that he likes Commissioner Olson's view that if something has been there for 25 years and has become part of the landscape and if it is more than 25-percent, leave it alone; however, he does not know how to handle something that was put there three weeks ago and by somebody who should have done it in the first place and it's more than 25 percent.

Commissioner Pearce agreed.

Mr. Dolan stated that he thinks where the Commission might benefit from a little bit more information about how this occurs is that most of this development is proposed in a valley. He explained that it is kind of like a bowl, and in this one particular area, there is a finger that is a little bit above the valley floor that projects out into it. He continued that at one point, they needed to cross that finger so they just plowed right through it and there was a road, and the sides of that road, just like a freeway that has been cut through, are man-made and are very steep; and then at the toe of that finger, they needed enough room between this finger and the creek to put in a barn, and they wanted the ground to be flat so they scraped off the end of the toe and it also became very sharp. He noted that if the Commission is going to interpret it the way it is heading, it will end up with this bowl in the bottom that cannot be seen from anywhere except from internally, a land form that is not very prominent but is right in the middle so one would have to build around it.

Commissioner Pearce stated that her concern is that the Commission is not just talking about this property but is also trying to talk about going forward with lots of properties.

Commissioner Blank noted that this is obviously still a workshop but he thinks it might be useful to actually see the property and would like to arrange for a site visit up into those areas. He noted that he drove up toward there but I did not actually get on the property.

Chair Pentin stated that what he is hearing from the Commission is that man-made slopes of 25 percent should be covered by Measure PP, but maybe there is an exception in this particular case that could be considered.

4. ***Does the Planning Commission believe that the grade differentials between lots should be reduced with the use of split-pad lots, stepped foundations, and/or terraced lots?***

Commissioner Blank inquired if there is any disadvantage in doing that.

Chair Pentin stated that the applicant has indicated that flat pads were best and they want that. He asked staff to weigh in on this.

Mr. Dolan replied that staff is not necessarily recommending one way or another; staff just does not want the Commission to be surprised if the plan stays that way and there are retaining walls when it comes back. He noted that there was a trend at one point where staff wanted everything on a split level to try and conform the house to the grade, but the reality is, sometimes those create more prominent and more visible homes, as opposed to on a flat pad, a little bit of the house gets cut in, it sits down inside the ground a little bit, and it does not protrude as much. He added that if there are pads and they are next to each other and they step, the depth gets lost because they are next to one another and the back corner is not visible. He noted that this is a choice, and the applicant has made a proposal that will require some retaining walls, the reason for doing that being that they do not have a great deal of area to work with due to the limitation provided by Measure PP and the 25 percent.

Commissioner Blank stated that he thinks it kind of comes down to a common sense thing. He noted that thinking back to some of the specific plans where two-story homes are not permitted, the Commission has had to consider and allowed single-story homes that were actually taller than two-story homes, and two-story homes that were actually shorter than the surrounding one-story homes. He indicated that it seems to him that to say “blanket” they are all going to be flat pads or they all ought to be split pads is not the right thing to do. He added that he thinks it has to be a combination based on staff’s judgment and the developer’s judgment about what fits best where to minimize the impact on the hills. He indicated that he would defer that to staff to work into the planning process.

Commissioner Pearce agreed.

Commissioner O’Connor stated that he thinks a lot of it would also depend on the topography, such that if it might be all right to grade if it’s a three- or four-foot grade, but it might not make any sense if it is a ten-foot step, in which case a split-level might fit better. He added, however, that if single-family homes or single-story handicapped-accessible homes are being considered, then there would not be any stairs. He stated that he did not think any single-stories are proposed in this development, although he

would like to see a few next to the existing neighborhood and said that maybe staff can see if they can work with the developer on that.

Commissioner Olson inquired if the top of any retaining wall that may be installed would presumably be 100 feet below the ridgeline and that its visibility would be minimized from afar.

Mr. Dolan said he believes that is correct.

Commissioner Pearce noted that it is a structure. She added that her inclination is always to minimize the impact on the hills. She noted that she does not think it should be a "blanket" this type versus that type and that the Commission is in agreement that it will be a lot-by-lot discussion.

The Commission considered Questions 5 through 7 together.

5. ***The street connection to Middleton Place will be determined with the review of the proposed project. The Planning Commission should review this issue and provide its comments to staff, the applicant, and the public.***

6. ***If the street connection to Sunset Creek Lane is not provided, does the Planning Commission concur that the North Sycamore Specific Plan will have to be amended to remove the street connection in order to make the Specific Plan consistent with the Pleasanton General Plan?***

7. ***Does the Planning Commission concur with the staff determination that streets are covered by Measure PP?***

Commissioner Blank stated that he thinks the Commission should defer to Commissioner Olson on these questions because he was pretty passionate about them. He indicated that he agrees at the very least, that a comprehensive traffic study is necessary and that the Commission and staff ought to look at ways to increase traffic access. He added that he would support going over the 25-percent grade to put in a traffic access, but without seeing the property, he does not know whether or not that is possible. He noted that he would want to go out there and look at it to understand if it would entail an extra thousand dollars or an extra million dollars to do it.

On Question No. 7, Commissioner Blank stated that he agrees with staff. He added that barring any other guidance at this point in time, staff is making the right choice to include streets in Measure PP. He noted that asking 100 different people can result in 100 different answers, and he is not going to try and interpret what people thought they were doing way back when, which was a much more emotionally-charged environment than what is here tonight. He stated that he prefers to take the conservative approach because the Commission can always do something different down the road. He indicated that he agrees with Commissioner Olson that a better access, a different access, should be looked into.

Commissioner O'Connor agreed that streets are considered one of those structures. He stated that if the thinking is that a road did not matter, then it would be all right to go ahead and shave off the top of a ridge to put in a road to provide access to some park. He added that he thinks Measure PP is sort of clear that one cannot go in and tear areas over a 25-percent slope to put in streets and sewers and sidewalks. He indicated that he thinks staff is taking the right approach, and the City does not need any more lawsuits. He cautioned that with respect to access, providing more access points for traffic to get out will mean more access for traffic to come in as well, and there would be actually be more than just 50 homes accessing those same roads going in the opposite direction.

Chair Pentin agreed. He stated that he lives off of Junipero Street and has seen over 20 years a change on this street. He indicated that he totally agrees with the comments made tonight about the curve and the stop signs and that he cannot see this project with just a Lund Ranch Road access to Junipero Street and Independence Drive. He added that he understands that the connection to Middleton Place is a huge grade and would like to know how Measure PP affects the connection to Sunset Creek Lane. He noted that there have been either promises or things put in place for many years, and he would like to have those evaluated. He further indicated that he would like to have Measure PP evaluated as to whether the connection from Lund Ranch and possibly the Foley property will have to come down through Lund Ranch Road to Independence Drive and down at Junipero Street. He noted that he would have a really big problem with that. He added that he cannot imagine installing traffic-calming devices and stop signs to that neighborhood in this particular case.

Commissioner Pearce agreed with what has been said and believes that streets are covered by Measure PP. She indicated that she has significant concerns about the circulation and does not know how to resolve those two. She stated loudly and clearly that there is a significant traffic problem in this neighborhood, and she is not willing to impose more significant traffic impacts there.

Commissioner Blank noted that the Commission received a lot of documentation today from the neighbors, some of which the Commission has not seen before. He stated that one thing that might be helpful is for staff to put together a timeline on major events so the Commission can see the total picture and understand how things came together for Lund Ranch.

Commissioner Olson agreed that would be very helpful.

Chair Pentin asked staff if they have enough information on the discussion questions.

Mr. Dolan said yes.

Commissioner Pearce stated that she would like to hear the Commissioners' viewpoints on the concept of a park on this property.

Commissioner Blank stated that there is no park plan for this property and that he is not certain if the Commission can talk about a property that's not part of the workshop.

Commissioner Pearce clarified that she is referring to this property.

Commissioner Blank stated that he thinks it would be great to have a park.

Chair Pentin stated that he agrees with the idea of a park, or he thought there was something about a staging area for the trail system. He noted that it is a wonderful opportunity, especially with the dedication of certain open space, and would be a great place for the City's southeastern hills. He noted, however, that with the mention of a park, it comes right back to the traffic issue and circulation and access to and from the park.

Commissioner Pearce stated that she wants to resolve the circulation issue but that what she heard from the neighbors is that Mission Hills Park is heavily used, and she thinks the concept of adding something there in that area of town is intriguing.

Commissioner Blank stated that he thinks this is something the Commission could consider after traffic studies are done.

Commissioner O'Connor stated that he would probably entertain looking at something smaller such as a neighborhood park. He noted that Mission Hill Park is huge and draws people because it has amenities that other parks do not have such as the really big slides. He indicated that he thinks one would not want to draw people into the area. He noted that the last two or three developments up in this area did not include parks; the closest would be the Mission Hills Park.

Commissioner Olson stated that this is Pleasanton and questioned who would not be interested in a park. He indicated that he is in favor of a small neighborhood park.

Commissioner O'Connor stated that there were a lot of questions that came up tonight about water runoff, and the people close to that water are concerned especially with silt running down a hill. He inquired, if this were engineered correctly, if the water would have a channel to go through and into a sewer system so that the water would not run off the property and into the other neighborhood.

Mr. Dolan replied that would be the goal.

Commissioner Blank stated that the other thing he did hear tonight for whatever reason is that the neighbors did not receive notices. He suggested that the City work with the developer to make sure that the notification is accurate and up to date.

No action was taken.

c. **<u>P12-0113, Angela Joe-Willmes and Linda Martin, Appellants (Kathy Wooley/Harris French & Associates, for WalMart Neighborhood Market, Applicant)</u>**
Appeal of the Zoning Administrator's (in this case the Community Development Director's) approval of a Zoning Certificate to operate a supermarket as a permitted use at 3112 Santa Rita Road within the hours of operation and delivery limits as set forth in the existing Conditions of Approval for PUD-84-4 (Ordinances Nos. 1035, 1165 and 1214 and Planning Commission Resolution No. 2691). Zoning for the property is PUD-C-O (Planned Unit Development – Commercial-Office) District.

This item has been continued to a Special Meeting on March 19, 2012.

7. MATTERS INITIATED BY COMMISSION MEMBERS

<u>WalMart Appeal</u>

Commissioner Olson inquired if the reason the WalMart item was moved to the Firehouse Art Center was because of the neighborhood groundswell of opinion or because of union pressure.

Mr. Dolan replied that the Fire Chief felt the Council Chamber was too full for safety the last time the WalMart item was on the Council Agenda as a non-action of accepting the Zoning Administrator's actions report which was just staff relaying information to the Council. He continued that now that there is actually an appeal that will be acted on, the Fire Chief felt that to hold the meeting in the Council Chamber, staff would need to have a system to meter the number of people coming in without having to literally leave anybody outside. He noted that the Art Center has almost double the capacity and includes some lobby space where the public can stand and watch the meeting. He added that this was purely the reason and that staff was not projecting who it is that necessarily would show up.

8. MATTERS FOR COMMISSION'S REVIEW/ACTION

a. Future Planning Calendar

No discussion was held or action taken.

b. Actions of the City Council

No discussion was held or action taken.

c. Actions of the Zoning Administrator

No discussion was held or action taken.

9. COMMUNICATIONS

No discussion was held or action taken.

10. REFERRALS

No discussion was held or action taken.

11. MATTERS FOR COMMISSION'S INFORMATION

No discussion was held or action taken.

12. ADJOURNMENT

Chair Pentin adjourned the Planning Commission meeting at 9:50 p.m.

Respectfully,

JANICE STERN
Secretary

From: Fritz Geier <fgeier@geierconsulting.com>
Subject: Fwd: Lund Ranch II EIR comments / creek area conservation measures
Date: August 5, 2012 1:11:05 PM PDT
To: Valerie Geier <valerie@geierconsulting.com>

1 Attachment, 13 KB

Begin forwarded message:

From: Marion Pavan <MPavan@cityofpleasantonca.gov>
Subject: **FW: Lund Ranch II EIR comments / creek area conservation measures**
Date: June 4, 2012 7:28:32 AM PDT
To: Fritz Geier <fgeier@geierconsulting.com>

Response to NOP

From: richard cimino [mailto:yellowbilledtours@gmail.com]
Sent: Sunday, June 03, 2012 8:25 PM
To: Marion Pavan; Brian Dolan
Subject: Lund Ranch II EIR comments / creek area conservation measures

On behalf of the Ohlone Audubon Society of Alameda County I submit the following comments with regard to the Lund Ranch II Draft EIR.
I have recently walked the area shown on the Lund Ranch II site map in the May18th Notice for Preparation letter.
1.) Several months back when I visited your office you and I reviewed the large site maps.
We discussed the wooded creek area on the southwest side of the proposal.
I see lots 33 to 50 will have a boarder with the creek riparian habitat-wildlife corridor linkage.
If you recall the Audubon has been preforming it's annual Christmas Bird Count in this creek riparian habitat - wildlife corridor linkage area.
So we have an interest, maybe some concerns as to how the developer plans to treat this area.
Is there a specific treatment or design in mind to keep this area natural ?
Will this area be free from no creek alterations, tree cutting, plowing and material dumping ?--
I'd be willing as I stated before to spend some time with the developer discussing their plans and our concerns.
2.) Another concern are the canyons to the northeast that are heavily wooded with native trees.
Will these canyons, slopes, uphill topography are they to be developed?
Thank you for reading our submission,
Regards,
Rich Cimino
Pleasanton, Cal. 94566

Click here to report this email as spam.

ALAMEDA County Transportation Commission
1333 Broadway, Suites 220 & 300 ▪ Oakland, CA 94612 ▪ PH: (510) 208-7400
www.AlamedaCTC.org

June 14, 2012

Marion Pavan
City of Pleasanton
Community Development Department
200 Old Bernal Avenue
Pleasanton, CA 94566-0802
MPavan@cityofpleasanton.ca.gov

SUBJECT: Response to Notice of Preparation of a Draft Environmental Impact Report (DEIR) for the Lund Ranch II Planned Unit Development for the City of Pleasanton

Dear Mr. Pavon:

Thank you for the opportunity to comment on the Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) for the Lund Ranch II Planned Unit Development for the City of Pleasanton. The project is located on a 195 acre site at 1500 Lund Ranch Road in the City of Pleasanton. The site is at the south end of the city, southeast of the residential area that extends south of Bernal Avenue and east of Sunol Boulevard. The project is a proposal to construct 50 residential units and preserve 172 acres of open space, including 161 acres as permanent public open space and 11 acres as private open space.

We have no comments because the project does not generate 100 or more P.M. peak hour trips above existing conditions, which would require compliance with the Land Use Analysis Program of the Congestion Management Program (CMP). The project is, therefore, exempt from the Land Use Analysis Program of the CMP.

Please let me know if you have any other questions. I can be reached at (510) 208-7405.

Sincerely,

Beth Walukas
Deputy Director of Planning

cc: Diane Stark, Senior Transportation Planner
File: CMP – Environmental Review Opinions – Responses - 2012

APPENDIX B

LIST OF SPECIAL-STATUS PLANTS AND ANIMALS

Table 1

List of Special-Status Plant Species Known from the Project Vicinity

(Based on a 9-quad search centered on the Study Area, including the following 7.5 minute topographic quads: Livermore, Diablo, Tassajara, Altamont, Mendenhall Springs, Byron Hot Springs, Dublin, Niles, and La Costa Valley)

Species	**Status***	**Habitat Requirements (Blooming Period)**	**Occurrence in the Study Area**
Amsinckia grandiflora, large-flowered fiddleneck	FE, SE, CNPS 1B.1	Cismontane woodland, Valley and foothill grassland. (Apr-May)	**Absent**: not detected during botanical surveys.
Amsinckia lunaris, bent-flowered fiddleneck	CNPS 1B.2	Coastal bluff scrub, Cismontane woodland, Valley and foothill grassland. (Mar-Jun)	**Absent:** not detected during botanical surveys.
Anomobryum julaceum, slender silver moss	CNPS 2.2	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest/damp rock and soil on outcrops, usually on roadcuts.	**Absent**: no suitable habitat.
Arctostaphylos auriculata, Mt. Diablo manzanita	CNPS 1B.3	Chaparral (sandstone), Cismontane woodland. (Jan-Mar)	**Absent**: no suitable habitat.
Arctostaphylos manzanita ssp. *laevigata*, Contra Costa manzanita	CNPS 1B.2	Chaparral (rocky). (Jan-Mar(Apr))	**Absent**: no suitable habitat.
Astragalus tener var. *tener*, alkali milk-vetch	CNPS 1B.2	Playas, Valley and foothill grassland (adobe clay), Vernal pools/alkaline. (Mar-Jun)	**Absent**: no suitable habitat.
Atriplex cordulata, heartscale	CNPS 1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland (sandy)/saline or alkaline. (Apr-Oct)	**Absent**: no suitable habitat.
Atriplex depressa, brittlescale	CNPS 1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland, Vernal pools/alkaline, clay. (Apr-Oct)	**Absent:** not detected during botanical surveys.
Atriplex joaquiniana, San Joaquin spearscale	CNPS 1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland/alkaline. (Apr-Oct)	**Absent**: not detected during botanical surveys.
Atriplex minuscula, lesser saltscale	CNPS 1B.1	Chenopod scrub, Playas, Valley and foothill grassland/alkaline, sandy. (May-Oct)	**Absent**: no suitable habitat.
Balsamorhiza macrolepis var. *macrolepis*, big-scale balsamroot	CNPS 1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland/sometimes serpentinite. (Mar-Jun)	**Absent**: not detected during botanical surveys.
Blepharizonia plumosa, big tarplant	CNPS 1B.1	Valley and foothill grassland/Usually clay. (Jul-Oct)	**Absent**: not detected during botanical surveys.

Table 1 (Cont'd)

List of Special-Status Plant Species Known from the Project Vicinity

Species	**Status***	**Habitat Requirements (Blooming Period)**	**Occurrence in the Study Area**
California macrophylla (=*Erodium macrophyllum*), round-leaved filaree	CNPS 1B.1	Cismontane woodland, Valley and foothill grassland/clay. (Mar-May)	**Absent**: not detected during botanical surveys.
Calochortus pulchellus, Mt. Diablo fairy-lantern	CNPS 1B.2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland. (Apr-Jun)	**Absent**: not detected during botanical surveys.
Campanula exigua, chaparral harebell	CNPS 1B.2	Chaparral (rocky, usually serpentinite). (May-Jun)	**Absent**: no suitable habitat.
Centromadia parryi ssp. *congdonii*, Congdon's tarplant	CNPS 1B.2	Valley and foothill grassland (alkaline). (May-Oct(Nov))	**Absent**: not detected during botanical surveys.
Chloropyron molle ssp. *hispidum*, hispid bird's-beak	CNPS 1B.1	Meadows and seeps, Playas, Valley and foothill grassland/alkaline. (Jun-Sep)	**Absent**: not detected during botanical surveys.
Chloropyron palmatum (=*Cordylanthus palmatus*), palmate-bracted bird's-beak	FE, SE, CNPS 1B.1	Chenopod scrub, Valley and foothill grassland/alkaline. (May-Oct)	**Absent**: not detected during botanical surveys.
Deinandra bacigalupii, Livermore tarplant	CNPS 1B.2	Meadows and seeps (alkaline). (Jun-Oct)	**Absent**: no suitable habitat.
Delphinium californicum ssp. *interius*, Hospital Canyon larkspur	CNPS 1B.2	Chaparral (openings), Cismontane woodland (mesic), Coastal scrub. (Apr-Jun)	**Absent**: no suitable habitat.
Delphinium recurvatum, recurved larkspur	CNPS 1B.2	Chenopod scrub, Cismontane woodland, Valley and foothill grassland/alkaline. (Mar-Jun)	**Absent**: not detected during botanical surveys.
Didymodon norrisii, Norris' beard moss	CNPS 2.2	Cismontane woodland, Lower montane coniferous forest/intermittently mesic, rock.	**Absent**: no suitable habitat.
Dirca occidentalis, western leatherwood	CNPS 1B.2	Broadleafed upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland, North Coast coniferous forest, Riparian forest, Riparian woodland/mesic. (Jan-Mar(Apr))	**Absent**: not detected during botanical surveys.
Eriogonum nudum var. *decurrens*, Ben Lomond buckwheat	CNPS 1B.1	Chaparral, Cismontane woodland, Lower montane coniferous forest (maritime ponderosa pine sandhills)/sandy. (Jun-Oct)	**Absent**: no suitable habitat.
Eriogonum truncatum, Mt. Diablo buckwheat	CNPS 1B.1	Chaparral, Coastal scrub, Valley and foothill grassland/sandy. (Apr-Sep(Nov),(Dec))	**Absent**: no suitable habitat.

Table 1 (Cont'd)

List of Special-Status Plant Species Known from the Project Vicinity

Species	**Status***	**Habitat Requirements (Blooming Period)**	**Occurrence in the Study Area**
Eschscholzia rhombipetala, diamond-petaled California poppy	CNPS 1B.1	Valley and foothill grassland (alkaline, clay). (Mar-Apr)	**Absent**: not detected during botanical surveys.
Helianthella castanea, Diablo helianthella	CNPS 1B.2	Broadleafed upland forest, Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland. (Mar-Jun)	**Absent**: not detected during botanical surveys.
Hesperolinon breweri, Brewer's western flax	CNPS 1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland/usually serpentinite. (May-Jul)	**Absent**: not detected during botanical surveys.
Lasthenia conjugens, Contra Costa goldfields	FECNPS 1B.1	Cismontane woodland, Playas (alkaline), Valley and foothill grassland, Vernal pools/mesic. (Mar-Jun)	**Absent**: not detected during botanical surveys.
Legenere limosa, legenere	CNPS 1B.1	Vernal pools. (Apr-Jun)	**Absent**: no suitable habitat.
Leptosyne hamiltonii, Mt. Hamilton coreopsis	CNPS 1B.2	Cismontane woodland (rocky). (Mar-May)	**Absent**: no suitable habitat.
Malacothamnus hallii, Hall's bush-mallow	CNPS 1B.2	Chaparral, Coastal scrub. (May-Sep(Oct))	**Absent**: no suitable habitat.
Monardella antonina ssp. *antonina*, San Antonio Hills monardella	CNPS 3	Chaparral, Cismontane woodland. (Jun-Aug)	**Absent**: not detected during botanical surveys.
Monolopia gracilens, woodland woolythreads	CNPS 1B.2	Broadleafed upland forest (openings), Chaparral (openings), Cismontane woodland, North Coast coniferous forest (openings), Valley and foothill grassland/Serpentine. ((Feb),Mar-Jul)	**Absent**: no suitable habitat.
Myosurus minimus ssp. *apus*, little mousetail	CNPS 3.1	Valley and foothill grassland, Vernal pools (alkaline). (Mar-Jun)	**Absent**: not detected during botanical surveys.
Navarretia nigelliformis ssp. *radians*, shining navarretia	CNPS 1B.2	Cismontane woodland, Valley and foothill grassland, Vernal pools. (Apr-Jul)	**Absent**: not detected during botanical surveys.
Navarretia prostrata, prostrate vernal pool navarretia	CNPS 1B.1	Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools/Mesic. (Apr-Jul)	**Absent**: not detected during botanical surveys.
Phacelia phacelioides, Mt. Diablo phacelia	CNPS 1B.2	Chaparral, Cismontane woodland/rocky. (Apr-May)	**Absent**: no suitable habitat.

Table 1 (Cont'd)

List of Special-Status Plant Species Known from the Project Vicinity

Species	**Status***	**Habitat Requirements (Blooming Period)**	**Occurrence in the Study Area**
Plagiobothrys glaber, hairless popcorn-flower	CNPS 1A	Meadows and seeps (alkaline), Marshes and swamps (coastal salt). (Mar-May)	**Absent**: no suitable habitat.
Polemonium carneum, Oregon polemonium	CNPS 2.2	Coastal prairie, Coastal scrub, Lower montane coniferous forest. (Apr-Sep)	**Absent**: no suitable habitat.
Sanicula saxatilis, rock sanicle	State Rare, CNPS 1B.2	Broadleafed upland forest, Chaparral, Valley and foothill grassland/rocky. (Apr-May)	**Absent**: no suitable habitat.
Senecio aphanactis, chaparral ragwort	CNPS 2.2	Chaparral, Cismontane woodland, Coastal scrub/sometimes alkaline. (Jan-Apr)	**Absent**: no suitable habitat.
Streptanthus albidus ssp. *peramoenus*, most beautiful jewel-flower	CNPS 1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland/serpentinite. ((Mar),Apr-Sep(Oct))	**Absent**: no suitable habitat.
Streptanthus hispidus, Mt. Diablo jewel-flower	CNPS 1B.3	Chaparral, Valley and foothill grassland/rocky. (Mar-Jun)	**Absent**: no suitable habitat.
Stuckenia filiformis, slender-leaved pondweed	CNPS 2.2	Marshes and swamps (assorted shallow freshwater). (May-Jul)	**Absent**: no suitable habitat.
Trifolium hydrophilum (=*Trifolium depauperatum* var. *hydrophilum*), saline clover	CNPS 1B.2	Marshes and swamps, Valley and foothill grassland(mesic, alkaline), Vernal pools. (Apr-Jun)	**Absent**: no suitable habitat.
Triquetrella californica, coastal triquetrella	CNPS 1B.2	Coastal bluff scrub, Coastal scrub/soil. (not noted)	**Absent**: no suitable habitat.
Tropidocarpum capparideum, caper-fruited tropidocarpum	CNPS 1B.1	Valley and foothill grassland(alkaline hills). (Mar-Apr)	**Absent**: no suitable habitat.
Viburnum ellipticum, oval-leaved viburnum	CNPS 2.3	Chaparral, Cismontane woodland, Lower montane coniferous forest. (May-Jun)	**Absent**: no suitable habitat.

NOTES: This list of special-status plant species known from the region contains updated records, naming conventions, and status assignments, and thus replaces an earlier list prepared by Live Oak Associates in 2002 (LOA, 2002b).

*For key to status symbols, see table below.

SOURCE: CDFG (2012a); CNPS (2012); USFWS (2012)

Table 1 (Cont'd)

List of Special-Status Plant Species Known from the Project Vicinity

Key to Status:	
FE	Federal Endangered
FT	Federal Threatened
SE	California State Endangered
ST	California State Threatened
CNPS 1A	CNPS list of plants that are presumed extinct in California
CNPS 1B	CNPS list of plants rare, threatened, or endangered in California and elsewhere
CNPS 2	CNPS list of plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
CNPS 3	CNPS list of plants About Which We Need More Information - A Review List
CNPS 4	CNPS list of plants of Limited Distribution - A Watch List
CNPS Threat Extensions	▪ 0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat) ▪ 0.2-Fairly threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat) ▪ 0.3-Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Table 2

List of Special-Status Animal Species
Within a 9-Quad Search Centered on the Study Area and Their Potential to Occur on Site

(7.5 minute topographic quads included: Livermore, La Costa Valley, Altamont, Mendenhall Springs, Diablo, Tassajara, Byron Hot Springs, Dublin and Niles)

Species	**Status***	**Habitat Requirements**	**Potential for Occurrence in Study Area**
Invertebrates			
Branchinecta longiantenna, longhorn fairy shrimp	G1, S1, FE	Endemic to the eastern margin of the Central Coast mountains in seasonally astatic grassland vernal pools. Inhabit small, clear-water depressions in sandstone and clear-to-turbid clay/grass-bottomed pools in shallow swales.	**None**: no suitable habitat.
Branchinecta lynchi, vernal pool fairy shrimp	G3, S2S3, FT	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**None**: no suitable habitat.
Branchinecta mesovallensis, midvalley fairy shrimp	G2, S2	Vernal pools in the Central Valley.	**None**: no suitable habitat.
Callophrys mossii bayensis, San Bruno elfin butterfly	G4T1, S1, FE	Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is *Sedum spathulifolium*.	**None**: site is outside of geographic range.
Efferia antiochi, Antioch efferian robberfly	G1G3, S1S3	Known only from Contra Costa and Fresno counties.	**None**: site is outside of geographic range.
Helminthoglypta nickliniana bridgesi, Bridges' coast range shoulderband	G2T1, S1	Inhabits open hillsides of Alameda and Contra Costa counties. Tends to colonize under tall grasses and weeds.	**Unlikely:** grazing has limited vegetative cover & habitat suitability in project impact area.
Hygrotus curvipes, curved-foot hygrotus diving beetle	G1, S1	Inhabits alkali vernal pools and other seasonal wetlands or slow-moving streams with pools and fringed with alkali vegetation between the Outer Coast Range and Sacramento Delta.	**None**: no suitable habitat.
Linderiella occidentalis, California linderiella	G3, S2S3	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids.	**None**: no suitable habitat

Table 2 (Cont'd)

List of Special-Status Animal Species
Within a 9-Quad Search Centered on the Study Area and Their Potential to Occur on Site

Species	**Status***	**Habitat Requirements**	**Potential for Occurrence in Study Area**
Speyeria callippe callippe, Callippe silverspot butterfly	FE	Northern coastal scrub habitat of the San Francisco peninsula. Larval host plant is *Viola pedunculata*. Most adults found on east facing slopes. Males congregate on hilltops in search of females.	**Unlikely:** extensive larval host plant (*Viola pedunculata*) present on site, but Comstock's silverspot (*Speyeria callippe comstocki*) is the subspecies likely to be present on site. Site is outside of known range in San Bruno Mtn on San Francisco peninsula & Joaquin Miller Park in Oakland.
Fishes			
Oncorhynchus mykiss irideus, steelhead - central California coast DPS	G5T2Q, S2, FT	From Russian River, south to Soquel Creek & to, but not including, Pajaro River. Also San Francisco & San Pablo Bay basins.	**None**: no suitable habitat.
Amphibians and Reptiles			
Ambystoma californiense, California tiger salamander	G2G3, S2S3, FT/FE, ST, CSC (Santa Rosa & Santa Barbara dps listed as FE)	Breeds in vernal pools and stock ponds of central California. Adults aestivate in grassland habitats near breeding sites.	**Present:** no suitable breeding habitat remains on site, but CTS documented at former stock pond in 2002 (dam failed circa 2000). Remnants of on-site population unlikely to remain, but breeding documented at 3 ponds within 0.6 mi. east of site in 2005.
Emys marmorata, western pond turtle	G3G4, S3, CSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams & irrigation ditches, usually with aquatic vegetation, need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Unlikely.** Not observed during special-status herp surveys in 2000 or 2002, or during other surveys conducted since the early 1990's. Pools in the wettest drainage, Drainage B are too shallow to provide good refuge habitat for the species.
Masticophis flagellum ruddocki, San Joaquin whipsnake	G5T2T3, S2?, CSC	Open, dry habitats with little or no tree cover. Found in valley grassland & saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.	**None**: no suitable habitat.

Table 2 (Cont'd)

List of Special-Status Animal Species
Within a 9-Quad Search Centered on the Study Area and Their Potential to Occur on Site

Species	**Status***	**Habitat Requirements**	**Potential for Occurrence in Study Area**
Masticophis lateralis euryxanthus, Alameda whipsnake	G4T2, S2, FT, ST	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes & ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a portion of the cover.	**None:** no suitable habitat occurs on site. Nearest chaparral habitat is approximately 0.6 mi to east. Prey & cover (rock outcropping, scrub cover) is limited & site is separated from critical habitat to west by I-580 & extensive development.
Phrynosoma blainvillii, coast horned lizard	G4G5, S3S4, CSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, & abundant supply of ants & other insects.	**None**: no areas of suitable habitat large enough to support CA horned lizard.
Rana boylii, foothill yellow-legged frog	G3, S2S3, CSC	Partly-shaded, shallow streams & riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.	**None**: no suitable habitat.
Rana draytonii, California red-legged frog	G4T2T3, S2S3, FT, CSC	Lowlands & foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to aestivation habitat.	**Unlikely**: foraging habitat only; no breeding sites.
Spea hammondii, western spadefoot toad	G3, S3, CSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	**None**: no suitable habitat
Birds			
Accipiter cooperii, Cooper's hawk	G5, S3	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	**Moderate:** suitable foraging habitat primarily in oak woodland, and marginal nesting habitat in riparian corridor.
Accipiter striatus, Sharp-shinned hawk	G5, S3	Ponderosa pine, black oak, riparian deciduous, mixed conifer and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes, with plucking perches are critical requirements. Usually nests within 275 ft of water.	**Low:** suitable foraging habitat is present in grassland and oak woodland, but nesting habitat is not present.

Table 2 (Cont'd)

List of Special-Status Animal Species Within a 9-Quad Search Centered on the Study Area and Their Potential to Occur on Site

Species	**Status***	**Habitat Requirements**	**Potential for Occurrence in Study Area**
Agelaius tricolor, tricolored blackbird	G2G3, S2, CSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, & foraging area with insect prey within a few km of the colony.	**Low:** no suitable nesting habitat; foraging habitat is present in grassland.
Aquila chrysaetos, golden eagle	G5, S3	Rolling foothills, mountain areas, sage-juniper flats, & desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**Low:** suitable foraging habitat is present, but nesting unlikely due to absence of tall trees.
Ardea herodias, great blue heron	G5, S4	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	**None:** no suitable nesting habitat.
Athene cunicularia, burrowing owl	G4, S2, CSC	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**Low:** suitable nesting & foraging habitat is present but no burrowing owls or sign have been observed during surveys.
Buteo regalis, ferruginous hawk	G4, S3S4	Open grasslands, sagebrush flats, desert scrub, low foothills & fringes of pinyon-juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	**Low:** suitable foraging habitat is present but site is outside nesting range.
Circus cyaneus, northern harrier	G5, S3, CSC	Coastal salt & fresh-water marsh. Nest & forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	**Moderate:** suitable foraging & nesting habitat is present.
Elanus leucurus, white-tailed kite	G5, S3	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Present:** white-tailed kites have been observed on site. Suitable nesting habitat occurs in oak woodland although no nests have been observed.
Eremophila alpestris actia, California horned lark	G5T3Q, S3	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley & east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	**Present:** CA horned larks have been observed on site. Nesting & foraging habitat is present.

Table 2 (Cont'd)

List of Special-Status Animal Species
Within a 9-Quad Search Centered on the Study Area and Their Potential to Occur on Site

Species	**Status***	**Habitat Requirements**	**Potential for Occurrence in Study Area**
Falco mexicanus, prairie falcon	G5, S3	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	**None:** no nesting habitat (e.g. cliffs) present on site or surrounding lands. Perches for foraging birds are limited.
Falco peregrinus anatum, American peregrine falcon	G4T3, S2, 8, 6	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	**Unlikely:** no suitable nesting habitat. May be a rare migrant or transient.
Haliaeetus leucocephalus, bald eagle	G5, S2, 8, SE	Ocean shore, lake margins, & rivers for both nesting & wintering. Most nests within 1 mi of water. Nests in large, old-growth, or dominant live tree w/open branches, especially ponderosa pine. Roosts communally in winter.	**None:** no suitable nesting or foraging habitat.
Lanius ludovicianus, loggerhead shrike	G4, S4, CSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, & riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**Present:** has been observed on site. Both breeding & foraging habitat exists on site.
Laterallus jamaicensis coturniculus, California black rail	G4T1, S1, ST	Inhabits freshwater marshes, wet meadows & shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that does not fluctuate during the year & dense vegetation for nesting habitat.	**None**: no suitable habitat.
Melospiza melodia pusillula, Alameda song sparrow	G5T2?, S2?, CSC	Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits *Salicornia* marshes; nests low in grindelia bushes (high enough to escape high tides) and in *Salicornia*.	**None**: no suitable habitat; out of geographic range
Mammals			
Antrozous pallidus, pallid bat	G5, S3, CSC	Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Low:** suitable foraging & roosting habitat is present on site.
Corynorhinus townsendii, Townsend's big-eared bat	G4, S2S3, CSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls & ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Low:** suitable foraging & roosting habitat is present on site.

Table 2 (Cont'd)

List of Special-Status Animal Species Within a 9-Quad Search Centered on the Study Area and Their Potential to Occur on Site

Species	**Status***	**Habitat Requirements**	**Potential for Occurrence in Study Area**
Dipodomys heermanni berkeleyensis, Berkeley kangaroo rat	G3G4T1 S1,	Open grassy hilltops & open spaces in chaparral & blue oak/digger pine woodlands. Needs fine, deep, well-drained soil for burrowing.	**Unlikely:** last recorded in 1940. Suitable habitat present.
Lasiurus cinereus, hoary bat	G5, S4?	Prefers open habitats or habitat mosaics, with access to trees for cover & open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	**Low:** suitable foraging & roosting habitat is present on site.
Myotis yumanensis, Yuma myotis	G5, S4?	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	**None:** no suitable habitat.
Neotoma fuscipes annectens, San Francisco dusky-footed woodrat	G5T2T3, S2S3, CSC	Forest habitats of moderate canopy & moderate to dense understory. May prefer chaparral & redwood habitats. Constructs nests of shredded grass, leaves & other material. May be limited by availability of nest-building materials.	**Unlikely:** grazing has reduced understory; no stick lodges observed.
Taxidea taxus, American badger	G5, S4, CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils & open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Unlikely:** site is west of range.
Vulpes macrotis mutica, San Joaquin kit fox	G4T2T3, S2S3, FE, ST	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	**None:** site is isolated from suitable habitat to the east.
Sources: CDFG (2012a); USFWS (2012)			

Table 2 (Cont'd)

List of Special-Status Animal Species
Within a 9-Quad Search Centered on the Study Area and Their Potential to Occur on Site

Key to Status:	
FE	Federal Endangered
FT	Federal Threatened
SE	California State Endangered
ST	California State Threatened
DFG:SSC	California Department of Fish and Game Species of Special Concern
DFG:FP	California Department of Fish and Game Fully Protected Species
DFG:WL	California Department of Fish and Game Watch List
CDF:S	California Department of Forestry "Sensitive", warranting special protection during timber operations.
G1	Less than 6 viable element occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres.
G2	6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres.
G3	21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres.
G4	Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.
G5	Population or stand demonstrably secure to ineradicable due to being commonly found in the world.
T-rank	Subspecies receive a T-rank attached to the G-rank. With the subspecies, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety.
S1	Less than 6 Element Occurrences OR less than 1,000 individuals OR less than 2,000 acres S1.1 = very threatened S1.2 = threatened S1.3 = no current threats known
S2	6-20 Element Occurrences OR 1,000-3,000 individuals OR 2,000-10,000 acres S2.1 = very threatened S2.2 = threatened S2.3 = no current threats known
S3	21-80 Element Occurrences or 3,000-10,000 individuals OR 10,000-50,000 acres S3.1 = very threatened S3.2 = threatened S3.3 = no current threats known
S4	Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat. NO THREAT RANK.
S5	Demonstrably secure to ineradicable in California. NO THREAT RANK.

APPENDIX C

TRANSPORTATION ASSESSMENT

FEHR & PEERS

MEMORANDUM

Date: February 20, 2013

To: Fritz Geier, Geier & Geier Consulting

From: Kathrin Tellez and Tamara Lima, Fehr & Peers

Subject: ***Lund Ranch II Transportation Assessment***

WC12-2894

Fehr & Peers conducted a peer review of the *Lund Ranch II Alternate E Traffic Analyses* prepared by TJKM Transportation Consultants dated September 15, 2011 for the proposed Lund Ranch II (Project) development in Pleasanton, California, as documented in our memorandum dated February 24, 2012. Based on the peer review results, the need for additional roadway segment and intersection analysis was identified. This memorandum presents the results of the additional roadway segment analysis considering several access alternatives, as well as intersection analysis results.

The following presents our understanding of the Project, Analysis Methods, Analysis Results and Conclusions.

PROJECT DESCRIPTION

The Project proposes to construct 50 single-family dwelling units on an approximately 195-acre parcel. Regional access to the site is provided from Sunol Boulevard and Bernal Avenue, both of which connect to Interstate 680. As proposed, access to the Project site would be provided from Junipero Street and Independence Drive, as shown on **Figure 1**. An extension of Lund Ranch Road is proposed to connect the Project site to the existing roadway network. Homes would be developed on approximately 17-acres of the site and the remaining acreage would be devoted to open space, including approximately 161 acres of public open space, as shown on **Figure 2**.

The primary travel routes to the site, as presented on Figure 1, show that as proposed, primary access would occur from Independence Drive, which connects to Bernal Avenue, and from Junipero Street, which connects to Sunol Boulevard. Depending on future resident's individual driving habits, travel could also occur to the site from other roadways including Mission Drive and Hopkins Way, although use of these streets is expected to be limited given that those roadways do not provide direct site access.

Seven access alternatives are considered in this assessment in addition to the proposed Project connection to Lund Ranch Road. Provision of additional or different access points to the site would change travel patterns to the Project and affect the amount of added traffic to the roadway system. A potential new roadway connection between Sycamore Creek Way and Westbridge Lane, connecting to the Callippe Preserve Golf Course is also evaluated. Potential travel routes to the regional roadway network with these connections are shown on Figure 1.

ANALYSIS METHODS

Study Area and Analysis Scenarios

Daily roadway segment conditions were evaluated under various access scenarios for the following roadway segments for the Existing and Existing Plus Project scenarios:

- Lund Ranch Road, Independence Drive to Project Site
- Independence Drive, Hopkins Way to End
- Independence Drive, North of Hopkins Way
- Independence Drive, South of Bernal Avenue
- Livingston Way/Middleton Place, East of Hopkins Way
- Hopkins Way, East of Independence
- Hopkins Way, West of Independence
- Junipero Street, East of Sunol Boulevard
- Junipero Street, Between Sonoma Drive and San Antonio Street
- Junipero Street, West of Mission Drive
- Mission Drive, East of Sonoma Drive
- Sunset Creek Lane, East of Hanifen Way
- Hanifen Way , North of Sycamore Creek Way
- Dalton Creek Way, North of Sycamore Creek Way
- Summit Creek Lane, East of Sycamore Creek Way
- Sycamore Creek Way, Sycamore Road to east of Sycamore Terrace
- Sycamore Road, East of Sunol Boulevard

Additionally, peak hour intersection operations were evaluated for following intersections:

- Bernal Street/First Street
- Valley Street-Junipero Street/Sunol Boulevard
- Sunol Boulevard/Interstate 680 Northbound Ramps
- Sunol Boulevard/Interstate 680 Southbound Ramps

These intersections were selected for inclusion in the analysis as they have been projected to operate at Level of Service E or F in either the near-term or cumulative scenario and the Project has the potential to increase vehicle traffic through the intersections by more than 10 trips during either the AM or PM peak hour. The operations of roadway facilities are described with the term "level of service" (LOS) in this study. A description of the LOS analysis methods is attached.

Operations of the study intersection were evaluated during the weekday morning (AM) and weekday evening (PM) peak hours for the following scenarios:

Scenario 1: Existing Conditions – Existing volumes obtained from traffic counts and the existing roadway system configuration.

Scenario 2: Existing Plus Project – Existing volumes plus traffic estimated for the project. The roadway system is be the same as Scenario 1.

Scenario 3: Near-Term No Project Conditions – Existing volumes plus traffic estimates for approved and pending developments and/or traffic increases due to regional growth (using the City of Pleasanton Travel Demand Model) and transportation system improvements anticipated to be completed, including improvements conditional upon approved development projects.

Scenario 4: Near-Term Project Conditions – Traffic volumes from Scenario 3 plus traffic estimated for the project. The roadway system will be the same as Scenario 3.

Scenario 5: Far-Term (Cumulative) No Project Conditions – Projected traffic volumes and the projected roadway system, using the City of Pleasanton Travel Demand Model. Our review of the City travel demand model indicates the cumulative forecasts include development of 150 single family homes on the Project site. To develop the No Project forecast, vehicle trips associated with development of 150 single family homes on this site were subtracted from the base forecasts.

Scenario 6: Far-Term (Cumulative) Project Conditions – Traffic volumes from Scenario 5 plus traffic estimated for build-out of the project. The roadway system will be the same as Scenario 5.

Significance Criteria

The following criteria were used to identify significant off-site intersection impacts of the proposed project. Off-site traffic impacts would be considered significant if the Project would result in any of the following:

- Deterioration of an intersection from LOS D (or better) to LOS E or LOS F
- The project adds 10 or more trips to an intersection projected to operate at LOS E or F prior to the addition of project traffic

The Bernal Avenue/First Street intersection is located within the Downtown Area. The *Downtown Specific Plan* contains policies which emphasize the need to maintain a traditional pedestrian-friendly atmosphere in the Downtown, with buildings constructed to the sidewalk, shade trees, outdoor dining, wide sidewalks, and street furniture. This overriding goal limits the extent intersections may be widened and improved. For this reason the Downtown intersections are exempt from the LOS D standard unless the City determines that improvements necessary to maintain LOS D are consistent with the goals of the *Downtown Specific Plan*. Additionally, the Sunol Boulevard ramp terminal intersections with I-680 have been designated as gateway intersections in the General Plan and could be exempt from the LOS D standard.

The amount of traffic that is reasonable for a residential street is highly subjective and can vary significantly. For designated local residential roadway segments, average daily traffic volumes around 1,500 vehicles per day are considered the upper limit while volumes up to around 3,000 vehicles per day are tolerated on designated residential collector streets. There is no standard of significance for daily roadway volumes on residential streets in Pleasanton.

Data Collection and Existing Conditions

Weekday morning and evening peak hour turning movement volume data, as well as existing lane configurations and intersection control devices were provided by the City of Pleasanton. The existing lane configurations and the existing traffic volumes are shown on **Figure 3**.

Daily roadway counts were collected over a three day period on the following roadway segments:

- Sunset Creek Lane, east of Hanifen Way
- Hanifen Way, south of Sunset Creek Lane
- Dalton Creek Way, south of Sunset Creek Lane
- Sycamore Creek Way, Sycamore Road to east of Sycamore Terrace
- Sycamore Road, east of Sunol Boulevard
- Summit Creek Lane north of Sycamore Creek Way

For the remaining roadway segments, daily volumes were provided by the City of Pleasanton, were taken from the TJKM report, or were estimated based on the peak hour volume from intersection counts. The existing daily volumes on study segments are presented on **Figure 4**.

Existing intersection operations were evaluated for both peak hours. **Table 2** (at the end of this report) summarizes the intersection analysis results. The results indicate all study intersections operate at overall acceptable service levels. However, the side-street movements from the I-680 ramps at Sunol Boulevard experience delays. Peak hour signal warrants[1] were evaluated for the unsignalized ramp intersections. The peak hour volume warrant is satisfied during at least one peak hour at both of the ramp terminal intersections with Sunol Boulevard.

Existing volumes on the roadway segments in the Project vicinity are summarized on **Table 3** (at the end of this report). Most roadways in the area carry less than 2,000 to 3,000 vehicles per day. Junipero Street, east of Sunol Boulevard has an average traffic volume of approximately 2,880, decreasing to approximately 2,240 east of Sonoma Drive. Sycamore Road also has average daily traffic volumes in excess of 3,000 vehicles for the roadway segment between Sunol Boulevard and Sycamore Creek Way.

Trip Generation

Project trip generation refers to the process for estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Project trip generation estimates were developed using rates contained in the Institute of Transportation Engineers (ITE) *Trip Generation* (8th Edition). Estimates of the total amount of traffic entering and exiting the project are calculated for an average weekday, as well as a weekend day. For a typical weekday, separate estimates are created for the peak one-hour periods during the morning and evening commute periods when traffic volumes on the surrounding streets are highest. The resulting estimates are presented in **Table 1**. As presented in Table 1, the project is expected to generate between 480 and 550 daily trips on a typical week day, with approximately 45 AM peak hour trips and 60 PM peak hour trips. For the purposes of the assessment discussed in the following section, the trip generation estimates based on the equation were selected for use in the analysis as they are slightly higher than those prepared using the average rates.

[1] Unsignalized intersection warrant analysis is intended to examine the general correlation between existing conditions and the need to install new traffic signals. Existing peak-hour volumes are compared against a subset of the standard traffic signal warrants recommended in the MUTCD 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 traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely on the warrants because the installation of signals can lead to certain types of collisions. The responsible State or local agency should undertake regular monitoring of actual traffic conditions and accident data and conduct a timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

TABLE 1
VEHICLE TRIP GENERATION ESTIMATES

Data Source	Size	Saturday Daily	Sunday Daily	Weekday Daily	AM Peak Hour	PM Peak Hour
ITE Rates[1]	50 DUs	500	440	480	38	51
ITE Equations[2]	50 DUs	550	430	550	45	56

Notes: DUs = dwelling units

1. Daily, AM, and PM trip generation based on rates for Single-Family Detached Housing (Land Use 210) in the ITE *Trip Generation* (8th Edition) as presented below.

Saturday Daily Rate: (T) =10.08 (X); inbound = 50%, outbound =50%
Sunday Daily Rate: (T)=8.77 (X); inbound = 50%, outbound =50%
Weekday Daily Rate: (T) = 9.57 (X); inbound = 50%, outbound =50%
AM Rate: (T) = 0.75 (X); inbound = 25%, outbound = 75%
PM Rate: (T) = 1.01 (X); inbound = 63%, outbound = 37%
Where: T = trip ends and X = number of dwelling units

2. Trip generation based on the regression equations for Single-Family Detached Housing (Land Use 210) in the Institute of Transportation Engineers' (ITE) *Trip Generation* (8th Edition), as presented below.

Saturday Daily Equation: Ln(T) = 0.95Ln (X)=2.59; inbound = 50%, outbound =50%
Sunday Daily Equation: (T) = 8.84 (X) – 13.31; inbound = 50%, outbound =50%
Weekday Daily Equation: Ln(T) = 0.92Ln (X) + 2.71; inbound = 50%, outbound =50%
AM Equation: (T) = 0.70 (X) + 9.74; inbound = 25%, outbound = 75%
PM Equation: Ln(T) = 0.90Ln (X) + 0.51; inbound = 63%, outbound = 37%
Where: T = trip ends and X = number of dwelling units

Source: ITE's *Trip Generation*, 8th Edition and Fehr & Peers, 2012

Project Trip Distribution and Assignment

Vehicle trip distribution was determined through a review of existing vehicle turning movement volumes and the City of Pleasanton Travel Demand Model select zone analysis, and the resulting trip distribution percentages are presented on **Figure 5**. Project trips were assigned through the study intersections based on the percentages; peak hour project trip assignment is also shown on Figure 5.

ANALYSIS RESULTS – INTERSECTION OPERATIONS

Existing Plus Project

To estimate peak hour intersection turning movement forecasts, the Project volumes (Figure 5) were added to the existing volumes shown on Figure 3 to develop Existing Plus Project forecasts,

as presented on **Figure 3**. No intersection improvements were included in the analysis of Exiting Plus Project conditions.

Results of the intersection analysis are presented in Table 2 (at the end of this report). The analysis results show that the proposed Project is not projected to worsen intersection operations from LOS D or better to LOS E or F.

Near-Term Conditions

Traffic volumes for the Near-Term condition were obtained from City staff and adjusted to reflect the recently approved Housing Element land uses, representing existing traffic plus traffic from approved developments in the City, as presented on **Figure 6.** These forecasts were developed using a computerized traffic model and represent likely traffic conditions in the area over the next five to ten years. Project volumes (Figure 5) were added to the near-term without project volumes shown to develop Near-Term With Project forecasts, also presented on Figure 6. No roadway improvements were assumed for the Near-Term analysis at any of the study intersections. Signal timings were optimized at signalized intersections, as the City regularly monitors traffic signal timing to ensure optimal traffic flow through critical corridors.

Results of the intersection analysis are presented in Table 3 (at the end of this report) for the near-term condition. The analysis results show that two intersections are projected to operate at deficient service levels in the Near-Term Without Project scenario (i.e., LOS E or F):

- Sunol Boulevard/I-680 Northbound Ramps
- Sunol Boulevard/I-680 Southbound Ramps

The proposed Project development is not projected to worsen intersection operations from LOS D or better to LOS E or F. However, the Project would add more than 10 vehicles through the Sunol Boulevard/I-680 Northbound Ramps and Sunol Boulevard/I-680 Southbound Ramps that are projected to operate deficiently without the Project, resulting in potentially significant impacts.

Intersection Impact 1: Sunol Boulevard/I-680 Northbound Ramps – This intersection currently is projected to operate at an overall level of service A during both the AM and PM peak hours, although significant delay would be experienced by the side-street movements. Peak hour signal warrants would also be satisfied. Although this intersection is designated as a Gateway intersection and could potentially be exempt from the LOS D standard, the projected conditions could cause excessive delay for vehicles exiting the freeway and could create an undesirable condition.

> ***Mitigation Measure 1*** – The need to signalize the Sunol Boulevard/I-680 Northbound Ramp intersection has been identified in the City's General Plan as a future planned

improvement to which the Project would contribute through the payment of traffic impact fees. With signalization, the intersection would operate at an acceptable service level, reducing this impact to a ***less-than-significant*** level.

Intersection Impact 2: Sunol Boulevard/I-680 Southbound Ramps – This intersection currently is projected to operate at an overall level of service F during the AM peak hour, with significant delay experienced by the side-street movements. Peak hour signal warrants would also be satisfied. Although this intersection is designated as a Gateway intersection and could potentially be exempt from the LOS D standard, the projected conditions could cause excessive delay for vehicles exiting the freeway and could create an undesirable condition.

> ***Mitigation Measure 2*** – The need to signalize the Sunol Boulevard/I-680 Southbound Ramp intersection has been identified in the City's General Plan as a future planned improvement to which the Project would contribute through the payment of traffic impact fees. With signalization, the intersection would operate at an acceptable service level, reducing this impact to a ***less-than-significant*** level.

General Plan Buildout Conditions

Preliminary traffic forecasts for the Cumulative scenario were obtained from City staff, representing existing traffic, plus traffic from approved and pending developments, as well as development that could occur under the current General Plan. These forecasts were developed using a computerized traffic model and represent likely traffic conditions in the area over the next 20 years. Adjustments were made to the forecasts to include project refinements as additional information became available since the development of the traffic model, including land use changes proposed as part of the recently approved Housing Element. Additionally, development of 150 single-family homes on the Project site was included in the base traffic modeling. Traffic generated by the assumed development on the site was removed to develop the Far-Term (Cumulative) No Project intersection turning movement volumes, as shown on **Figure 7.** Project volumes (Figure 5) were added to Cumulative Without Project traffic volumes to estimate Cumulative with Project traffic volumes, also presented on Figure 7.

The City of Pleasanton plans to construct a number of roadway improvements that would result in better service levels at a number of existing study intersections in the General Plan Buildout condition. Some of the planned improvements include the El Charro Road extension and the Stoneridge Drive extension. Regionally funded improvements that have the expectation of being constructed within the horizon of the General Plan update – such as the construction of an eastbound and westbound HOV lane on I-580 – were also assumed in the analysis of future conditions. The baseline planned roadway improvements have been incorporated into the traffic forecast model and the intersection operations analysis.

At the study intersections, signal timings were optimized at signalized intersections, as the City regularly monitors traffic signal timing to ensure optimal traffic flow through critical corridors. Additionally, signalization of the northbound and southbound ramp intersections of Sunol Boulevard with I-680 was accounted for in the analysis. The General Plan Buildout lane configurations and traffic controls are also shown on Figure 7.

Results of the intersection analysis are presented in Table 3 for the cumulative analysis scenarios. In the General Plan Buildout, the Project would contribute to one intersection projected to operate deficiently:

- Bernal Street/First Street

The addition of traffic from the proposed Lund Ranch development is not projected to worsen the operation of any study intersection projected to operate at LOS D or better without the project to LOS E or F.

Intersection Impact 3: Bernal Avenue/First Street - This intersection is projected to operate at LOS E during the AM peak hour with or without the Project. The project would add more than 10 vehicles through this intersection during the AM peak hour in the cumulative condition, resulting in a potentially significant impact. However, this intersection is located in the Downtown Area and is exempt from the City's LOS D standard if intersection improvements to achieve acceptable vehicle service levels conflict with other goals for the Downtown Area. No vehicular improvements have been identified at this intersection that would not conflict with the goals of the Downtown Specific Plan. Therefore, this impact is considered ***less-than-significant***.

ANALYSIS RESULTS – ROADWAY SEGMENT OPERATIONS

A neighborhood roadway analysis was conducted to determine potential impacts of Project traffic traveling though the neighborhoods to access the Project site. The analysis was conducted by comparing daily traffic volumes at numerous locations on the travel routes in the neighborhood for conditions before and after completion of the Project. For this assessment, the following access alternatives were evaluated for the roadway segments listed previously:

1) Proposed Project access via Lund Ranch Road
2) Lund Ranch Road + Middleton Place (no connection to Livingston Way)
3) Lund Ranch Road + Sunset Creek Lane
4) Lund Ranch Road + Middleton Place (no connection to Livingston Way) + Sunset Creek Lane
5) Lund Ranch Road + Middleton Place (no connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way

6) Middleton Place (no connection to Livingston Way) + Sunset Creek Lane (no connection to Lund Ranch Road)
7) Middleton Place (no connection to Livingston Way) + Sycamore Creek Way (no connection to Lund Ranch Road)
8) Middleton Place (no connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way (no connection to Lund Ranch Road)

Connections to the existing roadway network are shown on **Figure 8** for each access scenario. Under the Middleton Place scenario, Livingston Way between Middleton Place and Braxton Place would be closed and traffic from the 15 homes on Middleton Place would be rerouted through a connection of Livingston Place to the Project site. Consideration of a new roadway connection between Sycamore Creek Way and Westbridge Lane, connecting to the Callippe Preserve Golf Course is also evaluated.

Existing roadway volumes on the study segments were shown previously on Figure 4 and in Table 3. Project trips were added to each of the roadway segments based on the expected daily trip generation presented in Table 1 and the general trip distribution percentages shown on Figure 5. The added daily traffic is presented in Table 3 for the various access alternatives. On a peak hour basis, the added trips are equivalent to approximately 10 percent of the daily traffic. For example, the added traffic on Lund Ranch Road just east of the Project is approximately 55 vehicles during the peak one hour of the day, or slightly fewer than one additional vehicle per minute.

Based on the analysis results, the addition of Project traffic under the access Scenarios 1 and 2 (Lund Ranch Road or Middleton Place re-routing) could result in the traffic volumes on Junipero Street, from Sunol Boulevard to Tomas Way to exceed 3,000 vehicles per day. This roadway is a designated residential collector roadway with no front-on housing on this segment of the roadway. Traffic volumes decrease on Juniper Street to well within the expected range for a residential street, even with the addition of Project traffic, east of Sonoma Drive.

Under scenarios with Project connections to Sunset Creek Lane and/or Sycamore Creek Way, the addition of Project traffic and potentially re-routed traffic from Middleton Place would increase traffic on Sycamore Road between Sunol Boulevard and Sycamore Creek Way. Daily traffic volumes on this roadway segment currently exceed 3,000. A few homes front this portion of the roadway. Although some have a turnaround or are set back from the road, the potential traffic increase would be noticeable.

With the Project connection to Sunset Creek Lane and/or Sycamore Creek Way and Lund Ranch Road, there is the potential for travel patterns within the established neighborhoods surrounding the Project site to alter as there would then be an additional travel route connecting existing neighborhoods to the regional transportation system. Most travel shifts would come from

residents who live closest to Lund Ranch and it is likely that the shifts would be minimal given that most travel routes through the Project site would be circuitous and not provide the most direct route to the Sunol Boulevard or Bernal Street. It is expected that the main benefit of connecting the neighborhoods would be to disperse Project traffic more quickly, resulting in less added traffic on any given street and significant shifts in the travel patterns of existing residents is not expected to occur.

Roadway Segment Impact 1: Although the Project is not expected to increase traffic on any local residential streets above 1,500 vehicles per day, it would contribute to volumes in excess of 2,000 vehicles per day on several residential collector streets (depending on the access alternative selected). As front-on housing is located on a few of these segments, the increase in traffic would potentially be noticeable to existing residents of these streets. Although there are no set significance criteria for roadway segment impacts to residential streets, this is a ***potentially significant*** impact.

> ***Roadway Segment Mitigation 1:*** The Project Applicant shall work with the City of Pleasanton and the neighboring residents to develop a neighborhood traffic calming program to identify locations within the residential neighborhood where traffic calming devices, consistent with those outlined in the City of Pleasanton Neighborhood Traffic Calming Program (NTCP), would be appropriate for installation if studies completed after the project is constructed and occupied show significant additional traffic and increased speeds. The plan could include features such as the installation of curb extensions, speed humps, speed feedback signs, lighted cross-walks, and other devices that have proven effectiveness.
>
> To ensure that a study is completed within 6-months after full occupancy of the Project and improvements are installed, the developer shall establish a bond that would fund the traffic calming study and potential projects in the neighborhood. Remaining funds not used to implement the traffic calming project would be refunded to the Project Applicant. This measure would reduce the potential roadway segment impact to a ***less-than-significant*** level.

Golf Course Connection

A roadway connection between Sycamore Creek Way and Westbridge Lane may be constructed as part of another Project. Should that roadway be constructed (potential alignment shown on Figure 1), it could significantly reduce the travel distance from Bernal Avenue to the Callippe Preserve Golf Course, an 18-hole course, should a connection to Sunset Creek Lane in addition to Lund Ranch Road or Hopkins Way/Middleton Place be constructed as part of the Project. This additional connection could make it an attractive route for vehicles trips on Bernal Avenue, east of

Independence Drive. This route could also provide benefit to a limited number of homes on Minnie Street, Sycamore Creek Way, Sunset Creek Lane and Sycamore Road.

Should this roadway connection be constructed (in addition to the Sunset Creek Lane and Lund Ranch Road or Hopkins Way/Middleton Place connection), it is expected that some trips destined for the golf course and residential neighborhoods that would connect to the new roadway would alter. The expected traffic shifts are shown in Table 3, which shows that traffic volumes would likely increase on Independence Drive, Lund Ranch Road (or Hopkins Way/Middleton Place depending on the access alternative), and Sunset Creek Lane, but would decrease on portions of Sycamore Creek Road and Sycamore Road. The level of additional traffic on some streets would be noticeable, and implementation of Roadway Segment Mitigation 1 is recommended if this roadway connection is constructed in addition to the Sunset Creek Lane/Sycamore Creek Way and Lund Ranch Road connection to the Project site.

CONCLUSIONS

The analysis results indicate the proposed project would contribute to the need to signalize the Sunol Boulevard/I-680 ramp terminal intersections; payment of the traffic impact fee would constitute their fair payment to this planned improvement. Additionally, the increase in daily traffic volumes on streets that provide access to Lund Ranch could result in noticeable increase in traffic volumes to existing residents. A traffic calming program for the streets that provide access to the Project site, consistent with the City of Pleasanton Neighborhood Traffic Calming Program (NTCP), would reduce this impact to a ***less-than-significant*** level. Other potential roadway connections could also alter travel patterns within the existing neighborhoods, but the level traffic shifts would depend on the final Project access.

This completes our transportation assessment of *Lund Ranch II*. Please call Kathrin if you have questions.

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Attachments:

Attachment A – Intersection Level of Service Analysis Methods

Figures:

Figure 1	Site Vicinity Map and Study Intersection Location
Figure 2	Conceptual Project Site Plan
Figure 3	Existing and Exiting Plus Project Peak Hour Intersection Turning Movements, Lane Configuration and Traffic Control
Figure 4	Existing Daily Roadway Segment Volumes
Figure 5	Project Trip Distribution and Assignment
Figure 6	Near-term Without and With Project Intersection Turning Movements, Lane Configuration and Traffic Control
Figure 7	Cumulative Without and With Project Intersection Turning Movements, Lane Configuration and Traffic Control
Figure 8	Lund Ranch Access Alternatives

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TABLE 2
INTERSECTION LEVEL OF SERVICE SUMMARY

Intersection	Traffic Control[1]	Peak Hour	Existing		Existing Plus Project		Near Term				General Plan Buildout			
							Without Project		With Project		Without Project		With Project	
			Delay (sec.)[2]	LOS[3]	Delay (sec.)[2]	LOS[3]	Delay (sec.)[2]	LOS[3]	Delay (sec.)[2]	LOS[3]	Delay (sec.)[2]	LOS[3]	Delay (sec.)[2]	LOS[3]
Bernal Street/ First Street	Signal	AM	34	C	34	C	42	D	42	D	**58**	**E**	**58**	**E**
		PM	45	D	45	D	46	D	46	D	49	D	49	D
Valley Street/ Sunol Boulevard	Signal	AM	29	C	31	C	36	D	39	D	51	D	52	D
		PM	21	C	22	C	25	C	26	C	25	C	28	C
Sunol Boulevard/ I-680 NB Ramps	SSSC/ Signal	AM	1 (24)	A (C)	1 (24)	A (C)	**4 (> 80)**	**A (F)**	**4 (> 80)**	**A (F)**	8	A	8	A
		PM	2 (29)	A (D)	2 (30)	A (D)	**4 (75)**	**A (F)**	**4 (77)**	**A (F)**	10	A	10	A
Sunol Boulevard/ I-680 SB Ramps	SSSC/ Signal	AM	9 (21)	A (C)	9 (22)	A (C)	**> 80 (> 80)**	**F (F)**	**> 80 (> 80)**	**F (F)**	47	D	48	D
		PM	5 (21)	A (C)	6 (22)	A (C)	11 (39)	B **(E)**	13 **(46)**	B **(E)**	44	D	45	D

Notes: **Bold** shaded text indicates potentially unacceptable intersection operations.
1. Signal = Signalized Intersection; SSSC = Side-street stop-controlled intersections
2. Delay presented in seconds per vehicle; for side-street stop-controlled intersections, delay presented in Intersection average (worst approach)
3. LOS = Level of Service.

Source: Fehr & Peers, April 2012.

TABLE 3
ROADWAY SEGMENT ANALYSIS RESULTS SUMMARY

Roadway Segment	Extents	Roadway Type	Existing Average Weekday Traffic	Daily Change in Vehicle Trips[1]								
				Scenario 1 (With Project)[2]	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	With Golf Course Connection[3]
Lund Ranch Road	Independence to Project Site	Local	210	550	690	220	280	280	0	0	0	400[2]
Independence Drive	Hopkins Way to End	Local	340	550	690	220	280	280	0	0	0	400
Independence Drive	North of Hopkins	Residential Collector	630	490	490	200	120	120	-130	-130	-130	400
Independence Drive	South of Bernal	Residential Collector	1,760	180	180	70	50	50	-40	-40	-40	400
Livingston / Middleton	East of Hopkins	Local	140	0	-140	0	-140	-140	-140	-140	-140	400[4]
Hopkins Way	East of Inde-pendence	Local	290	0	-140	0	-140	-140	-140	-140	-140	400[4]
Hopkins Way	West of Independence	Local	200	60	60	20	20	20	-10	-10	-10	--
Junipero Street	East of Sunol	Residential Collector	2,880	260	260	110	60	60	-80	-80	-80	--
Junipero Street	Between Sonoma and San Antonio	Residential Collector	2,240	260	260	110	60	60	-80	-80	-80	--

TABLE 3
ROADWAY SEGMENT ANALYSIS RESULTS SUMMARY

Roadway Segment	Extents	Roadway Type	Existing Average Weekday Traffic	Daily Change in Vehicle Trips[1]								
				Scenario 1 (With Project)[2]	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	With Golf Course Connection[3]
Junipero Street	West of Mission	Residential Collector	1,500	260	260	110	60	60	-80	-80	-80	--
Mission Drive	East of Sonoma	Local	1,010	110	110	40	30	30	-20	-20	-20	--
Sunset Creek Lane	East of Hanifen	Local	100	0	0	330	410	120	690	0	210	400
Hanifen Way	North of Sycamore Ck	Local	130	0	0	200	260	70	420	0	140	400
Dalton Creek Way	North of Sycamore Ck	Local	180	0	0	100	120	40	200	0	50	--
Summit Creek Lane	East of Sycamore Ck	Local	580	0	0	30	30	10	70	0	20	--
Sycamore Creek Way	Sycamore Rd to east of Sycamore Terr	Residential Collector	1,900	0	0	330	410	410	690	690	690	-40
Sycamore Road	East of Sunol	Residential Collector	3,440	0	0	330	410	410	690	690	690	-400

Notes: 1. Includes new traffic generated by the Project as well as existing traffic that could shift from roadway network changes.
2. Scenarios include:
1) Proposed Project access via Lund Ranch Road
2) Lund Ranch Road + Middleton Place (No connection to Livingston Way)
3) Lund Ranch Road + Sunset Creek Lane

4) Lund Ranch Road + Middleton Place (No connection to Livingston Way) + Sunset Creek Lane
5) Lund Ranch Road + Middleton Place (No connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way.
6) Middleton Place (No connection to Livingston Way) + Sunset Creek Lane (No connection to Lund Ranch Road.)
7) Middleton Place (No connection to Livingston Way) + Sycamore Creek Way (No connection to Lund Ranch Road.)
8) Middleton Place (No connection to Livingston Way) + Sunset Creek Lane + Sycamore Creek Way (No connection to Lund Ranch Road.)

3. Reflects shifted golf course /existing residential traffic, not Project traffic. Requires connection between Sunset Creek Lane and Lund Ranch Road and/or Middleton Place.
4. Depending on the Project access, added traffic may not occur.

Source: Fehr & Peers, 2013.

ATTACHMENT A – INTERSECTION LEVEL OF SERVICE ANALYSIS METHODS

The operations of roadway facilities are described with the term "level of service" (LOS). LOS is a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels of service are defined ranging from LOS A (i.e., best operating conditions) to LOS F (worst operating conditions). LOS E corresponds to operations "at capacity." When volumes exceed capacity, stop-and-go conditions result and operations are designated as LOS F. The City of Pleasanton strives to maintain LOS D or better for peak hour intersection operations.

Signalized Intersections

Traffic conditions at signalized intersections were evaluated using the method from Chapter 16 of the Transportation Research Board's 2000 *Highway Capacity Manual*. This operations analysis method uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the average control delay experienced by motorists traveling through an intersection. Control delay incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. **Table A-1** summarizes the relationship between average delay per vehicle and LOS for signalized intersections.

Unsignalized Intersections

Traffic conditions at unsignalized intersections were evaluated using the method from Chapter 17 of the 2000 Highway Capacity Manual. With this method, operations are defined by the average control delay per vehicle (measured in seconds) for each movement that must yield the right-of-way. At two-way or side street-controlled intersections, the control delay (and LOS) is calculated for each controlled movement, the left-turn movement from the major street, and the entire intersection. For controlled approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. The delays for the entire intersection and for the movement or approach with the highest delay are reported. **Table A-2** summarizes the relationship between delay and LOS for unsignalized intersections.

TABLE A-1
SIGNALIZED INTERSECTION LOS CRITERIA

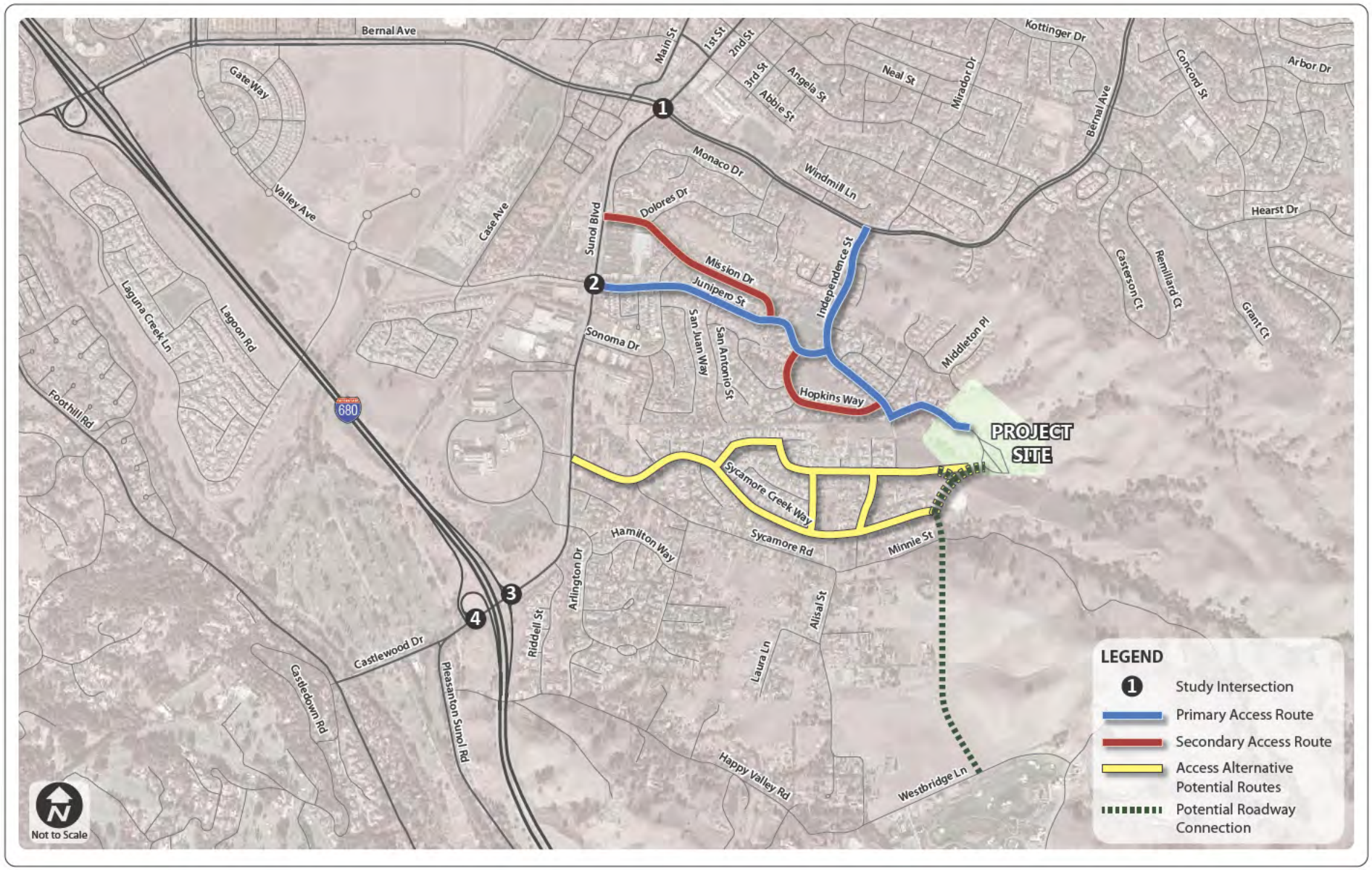
Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and/or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0
E	Operations with long delays indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55.0 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80.0

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

TABLE A-2
UNSIGNALIZED INTERSECTION LOS CRITERIA

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

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



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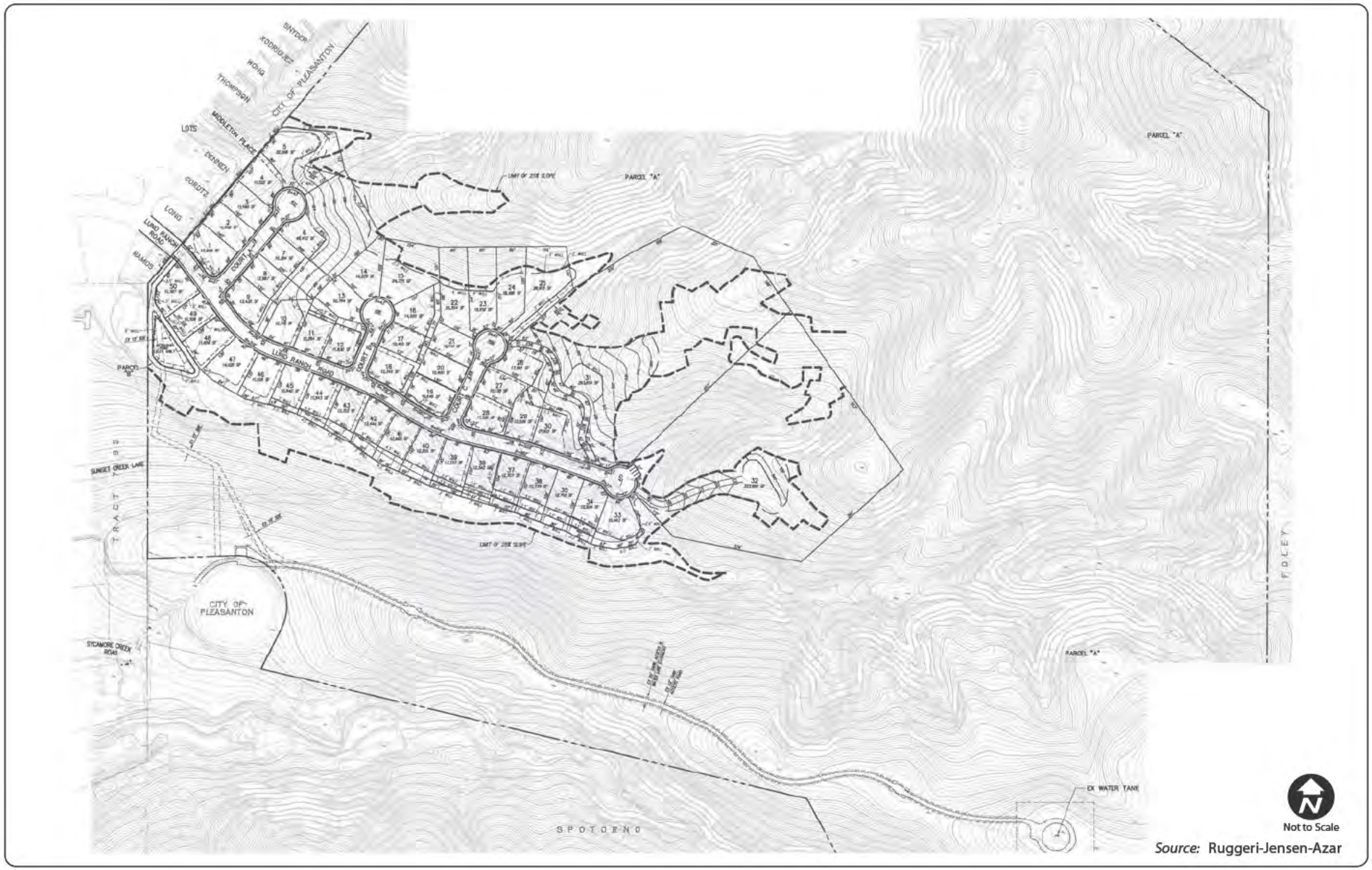
WC12-2894_1_Site&Access

PROJECT SITE LOCATION, ACCESS ROUTES AND STUDY INTERSECTIONS

FIGURE 1



Source: Ruggeri-Jensen-Azar

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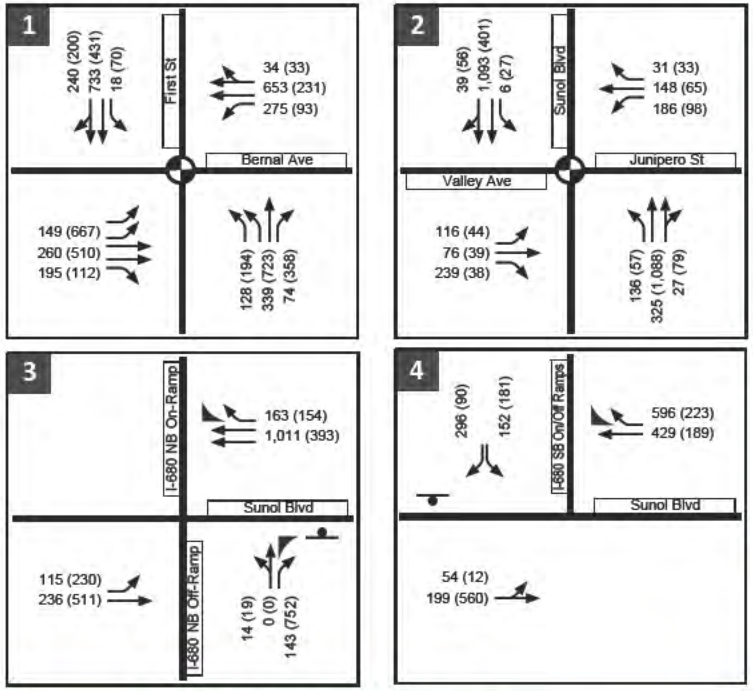
WC12-2894_2_SitePlan

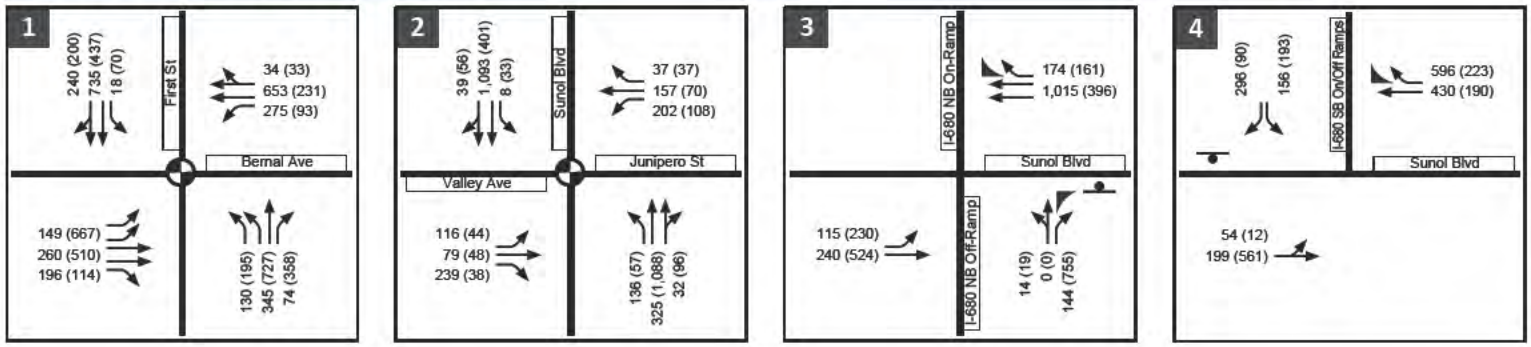
PROJECT SITE DEVELOPMENT PLAN

FIGURE 2

EXISTING VOLUMES



EXISTING PLUS PROJECT VOLUMES



LEGEND

- XX (YY) AM (PM) Peak Hour Traffic Volumes
- Signalized Intersection
- Stop Sign
- "Free" Right Turn
- Study Intersection

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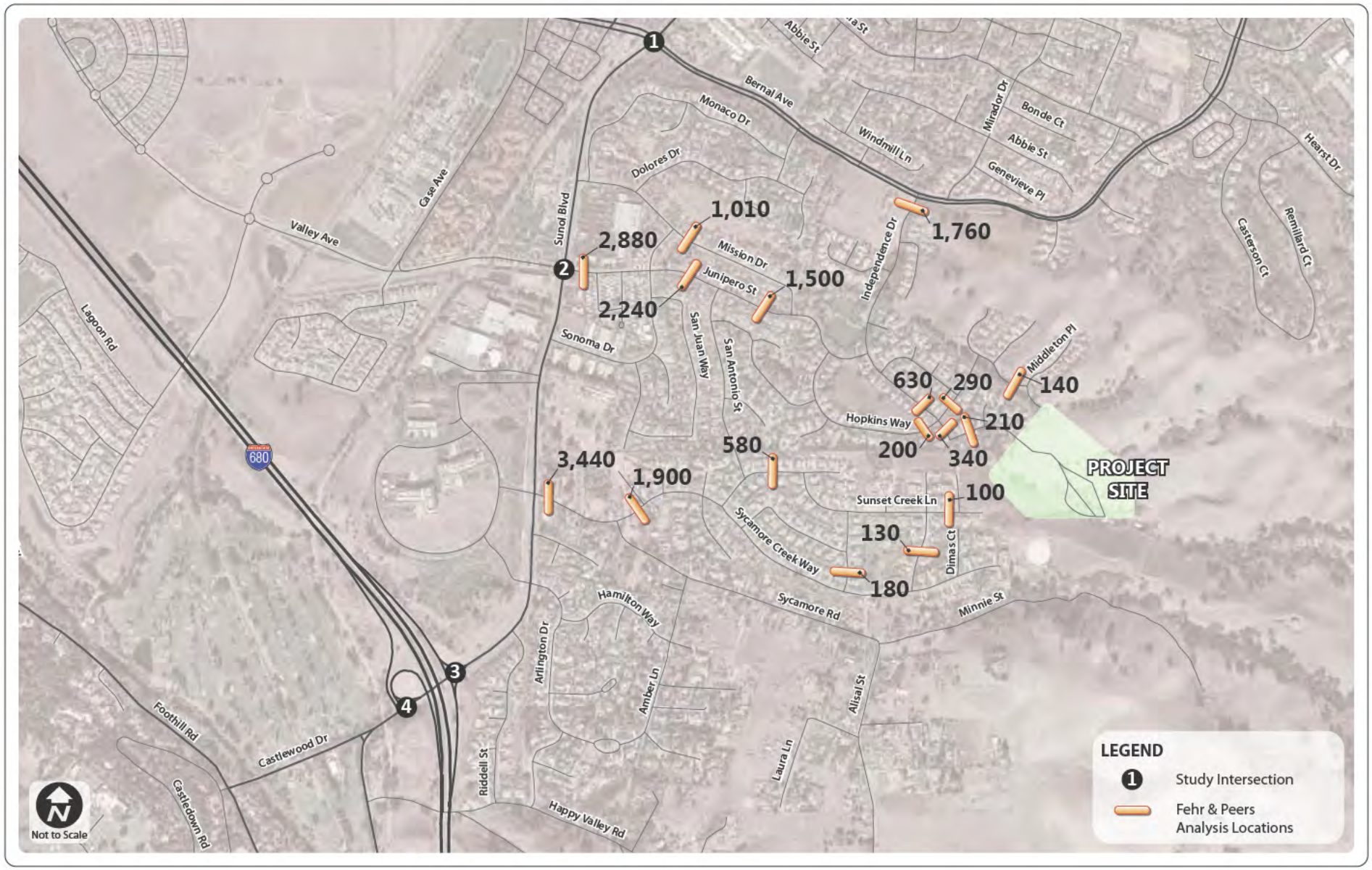
WC12-2894_3_ExVol

EXISTING AND EXISTING PLUS PROJECT PEAK HOUR INTERSECTION TURNING MOVEMENTS, LANE CONFIGURATION AND TRAFFIC CONTROL

FIGURE 3



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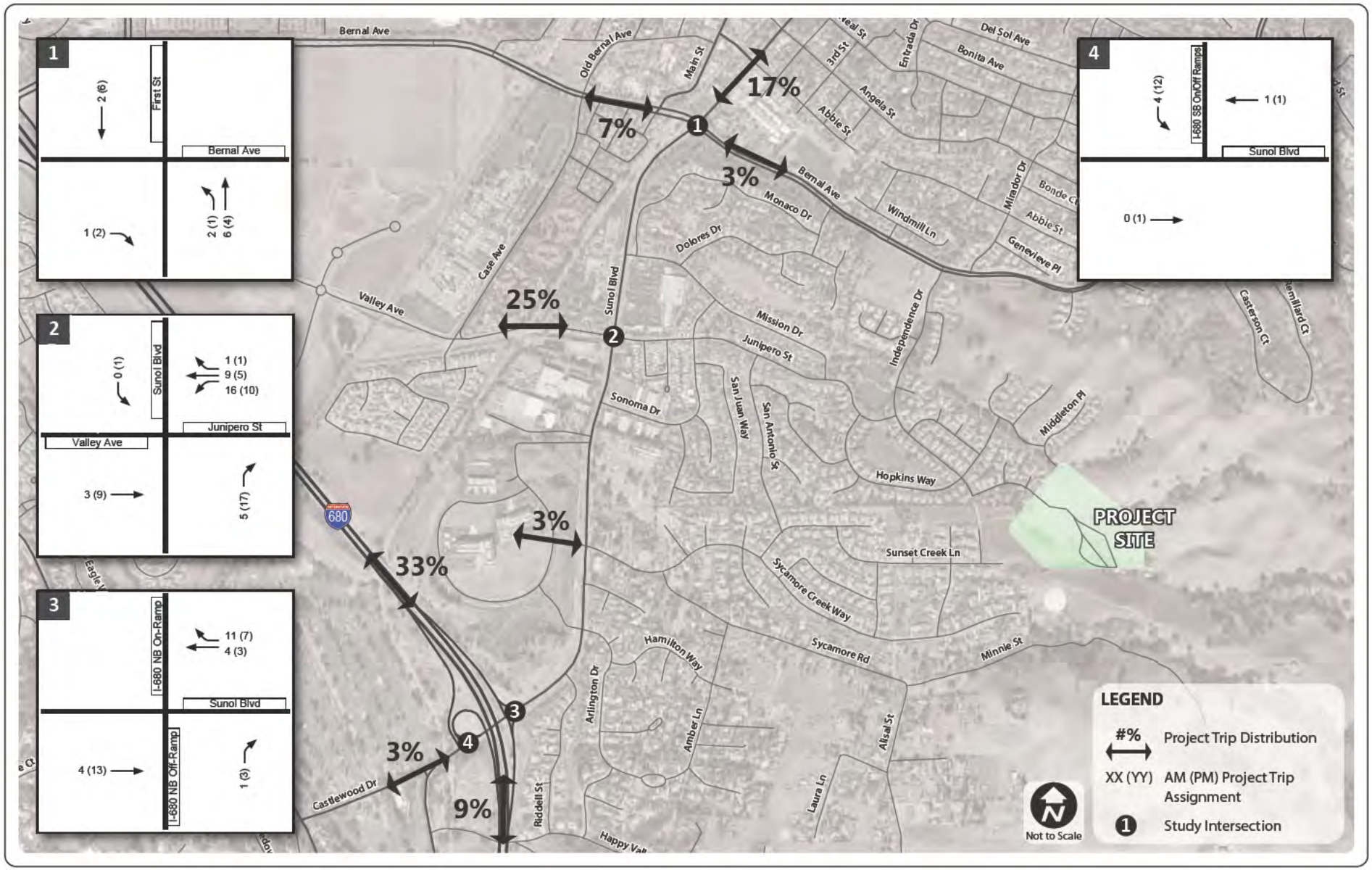
WC12-2894_4_RoadSegVol

EXISTING DAILY ROADWAY SEGMENT VOLUMES

FIGURE 4



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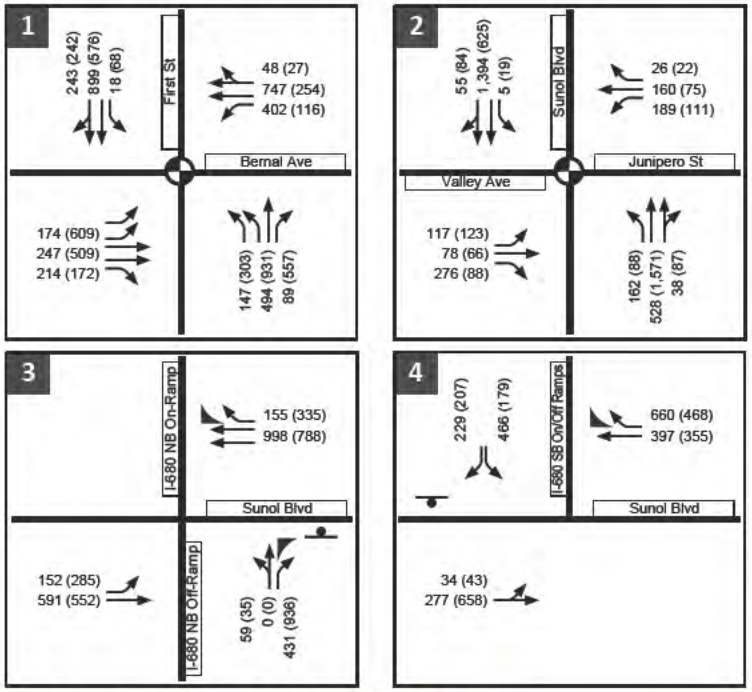
WC12-2894_5_TripDistro

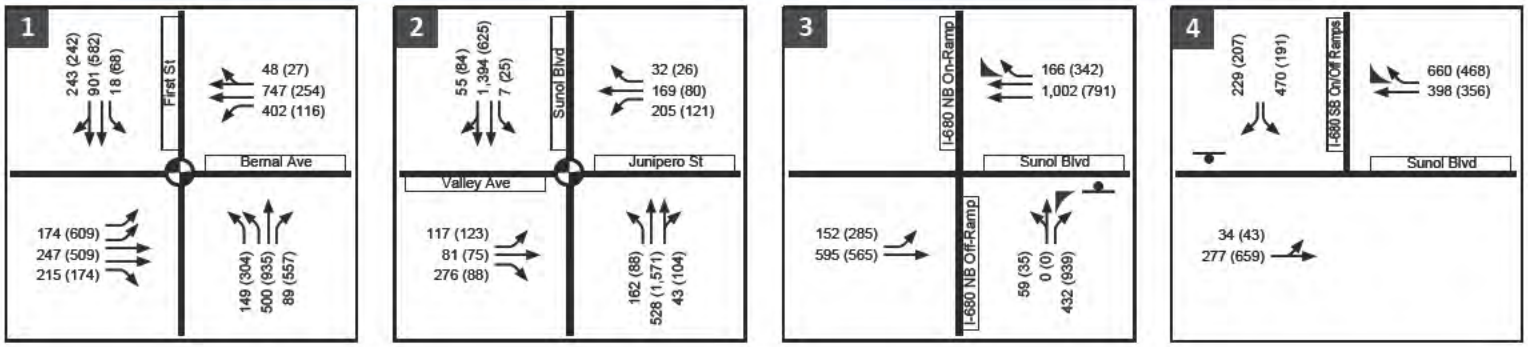
PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

FIGURE 5

NEAR-TERM VOLUMES



NEAR-TERM PLUS PROJECT VOLUMES



LEGEND

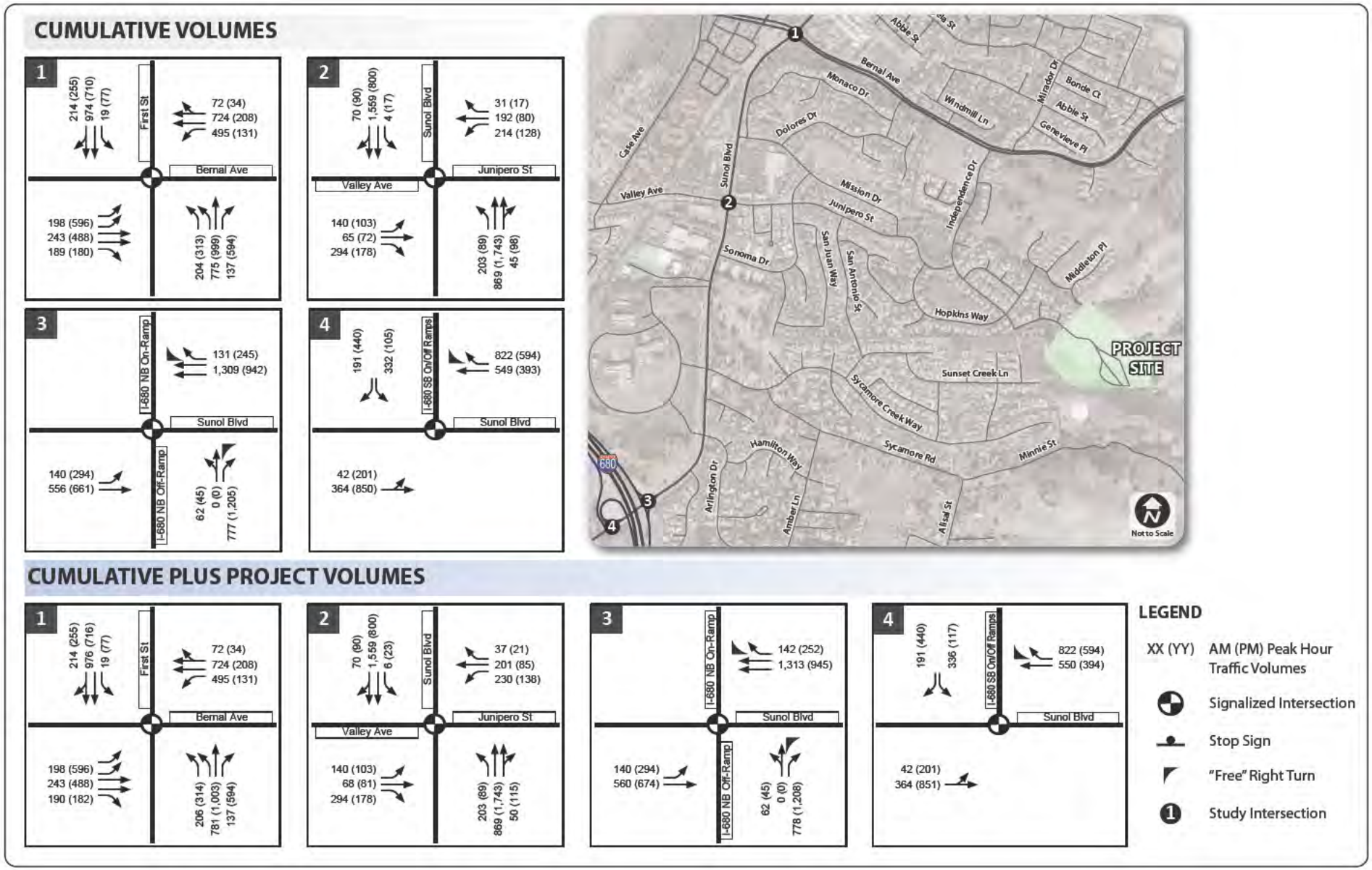
- XX (YY) AM (PM) Peak Hour Traffic Volumes
- Signalized Intersection
- Stop Sign
- "Free" Right Turn
- Study Intersection

FEHR PEERS

WC12-2894_6_NTVol

NEAR-TERM AND NEAR-TERM PLUS PROJECT PEAK HOUR INTERSECTION TURNING MOVEMENTS, LANE CONFIGURATION AND TRAFFIC CONTROL

FIGURE 6



FEHR PEERS

WC12-2894_7_CumVol

CUMULATIVE AND CUMULATIVE PLUS PROJECT PEAK HOUR INTERSECTION TURNING MOVEMENTS, LANE CONFIGURATION AND TRAFFIC CONTROL

FIGURE 7

SCENARIO 1:
Proposed Project

SCENARIO 2:
Lund Ranch Road
and Middleton Place

SCENARIO 3:
Lund Ranch Road
and Sunset Creek Lane

SCENARIO 4:
Lund Ranch Road, Middleton Place
and Sunset Creek Lane

SCENARIO 5:
Lund Ranch Road, Middleton Place,
Sunset Creek Lane and Sycamore Creek Way

SCENARIO 6:
Bonde Agreement

SCENARIO 7:
Middleton Place and
Sycamore Creek Way

SCENARIO 8:
Middleton Place, Sunset Creek Lane
and Sycamore Creek Way

APPENDIX D

AIR QUALITY HEALTH RISK SCREENING

Lund Ranch

San Francisco Bay Area Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	50	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	4	**Precipitation Freq (Days)**	64		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - CalEE default begins construction in 2011

Off-road Equipment -

Demolition -

Vehicle Trips - Data provided by project Traffic Consultant

Construction Off-road Equipment Mitigation -

Off-road Equipment -

Off-road Equipment -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2012	9.65	77.33	46.61	0.08	2.59	3.88	6.47	0.01	3.87	3.88	0.00	7,991.40	0.00	0.85	0.00	8,009.35
2013	12.01	97.62	54.50	0.10	8.97	4.60	13.57	3.31	4.60	7.91	0.00	11,103.96	0.00	1.07	0.00	11,126.54
2014	28.61	32.91	25.01	0.05	0.32	2.74	2.97	0.00	2.74	2.75	0.00	4,393.45	0.00	0.48	0.00	4,403.51
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2012	6.10	39.93	43.17	0.08	2.12	2.74	4.86	0.01	2.74	2.74	0.00	7,991.40	0.00	0.85	0.00	8,009.35
2013	7.95	50.40	58.31	0.10	3.68	3.44	7.12	1.30	3.43	4.73	0.00	11,103.96	0.00	1.07	0.00	11,126.54
2014	28.61	32.20	24.72	0.05	0.32	2.74	2.97	0.00	2.74	2.75	0.00	4,393.45	0.00	0.48	0.00	4,403.51
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	48.96	0.79	67.73	0.05		0.00	9.11		0.00	9.10	1,005.82	328.69		1.63	0.06	1,388.59
Energy	0.06	0.49	0.21	0.00		0.00	0.04		0.00	0.04		621.84		0.01	0.01	625.63
Mobile	2.72	5.00	23.82	0.03	3.69	0.17	3.86	0.05	0.16	0.21		3,489.94		0.19		3,494.00
Total	**51.74**	**6.28**	**91.76**	**0.08**	**3.69**	**0.17**	**13.01**	**0.05**	**0.16**	**9.35**	**1,005.82**	**4,440.47**		**1.83**	**0.07**	**5,508.22**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	48.96	0.79	67.73	0.05		0.00	9.11		0.00	9.10	1,005.82	328.69		1.63	0.06	1,388.59
Energy	0.06	0.49	0.21	0.00		0.00	0.04		0.00	0.04		621.84		0.01	0.01	625.63
Mobile	2.72	5.00	23.82	0.03	3.69	0.17	3.86	0.05	0.16	0.21		3,489.94		0.19		3,494.00
Total	**51.74**	**6.28**	**91.76**	**0.08**	**3.69**	**0.17**	**13.01**	**0.05**	**0.16**	**9.35**	**1,005.82**	**4,440.47**		**1.83**	**0.07**	**5,508.22**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

3.2 Demolition - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.78	0.00	0.78	0.00	0.00	0.00						0.00
Off-Road	9.34	75.14	44.19	0.07		3.80	3.80		3.80	3.80		7,510.81		0.83		7,528.31
Total	**9.34**	**75.14**	**44.19**	**0.07**	**0.78**	**3.80**	**4.58**	**0.00**	**3.80**	**3.80**		**7,510.81**		**0.83**		**7,528.31**

3.2 Demolition - 2012

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.18	2.06	1.05	0.00	1.59	0.07	1.66	0.00	0.06	0.07		291.22		0.01		291.40
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.12	1.37	0.00	0.22	0.01	0.23	0.00	0.01	0.01		189.36		0.01		189.63
Total	**0.31**	**2.18**	**2.42**	**0.00**	**1.81**	**0.08**	**1.89**	**0.00**	**0.07**	**0.08**		**480.58**		**0.02**		**481.03**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.30	0.00	0.30	0.00	0.00	0.00						0.00
Off-Road	5.79	37.74	40.75	0.07		2.67	2.67		2.67	2.67	0.00	7,510.81		0.83		7,528.31
Total	**5.79**	**37.74**	**40.75**	**0.07**	**0.30**	**2.67**	**2.97**	**0.00**	**2.67**	**2.67**	**0.00**	**7,510.81**		**0.83**		**7,528.31**

3.2 Demolition - 2012

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.18	2.06	1.05	0.00	1.59	0.07	1.66	0.00	0.06	0.07		291.22		0.01		291.40
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.12	1.37	0.00	0.22	0.01	0.23	0.00	0.01	0.01		189.36		0.01		189.63
Total	**0.31**	**2.18**	**2.42**	**0.00**	**1.81**	**0.08**	**1.89**	**0.00**	**0.07**	**0.08**		**480.58**		**0.02**		**481.03**

3.3 Grading - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.67	0.00	8.67	3.31	0.00	3.31						0.00
Off-Road	11.85	97.47	52.85	0.10		4.59	4.59		4.59	4.59		10,856.66		1.06		10,878.90
Total	**11.85**	**97.47**	**52.85**	**0.10**	**8.67**	**4.59**	**13.26**	**3.31**	**4.59**	**7.90**		**10,856.66**		**1.06**		**10,878.90**

3.3 Grading - 2013

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.16	0.15	1.66	0.00	0.30	0.01	0.31	0.00	0.01	0.01		247.30		0.02		247.63
Total	**0.16**	**0.15**	**1.66**	**0.00**	**0.30**	**0.01**	**0.31**	**0.00**	**0.01**	**0.01**		**247.30**		**0.02**		**247.63**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.38	0.00	3.38	1.29	0.00	1.29						0.00
Off-Road	7.79	50.25	56.65	0.10		3.43	3.43		3.43	3.43	0.00	10,856.66		1.06		10,878.90
Total	**7.79**	**50.25**	**56.65**	**0.10**	**3.38**	**3.43**	**6.81**	**1.29**	**3.43**	**4.72**	**0.00**	**10,856.66**		**1.06**		**10,878.90**

3.3 Grading - 2013

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.16	0.15	1.66	0.00	0.30	0.01	0.31	0.00	0.01	0.01		247.30		0.02		247.63
Total	**0.16**	**0.15**	**1.66**	**0.00**	**0.30**	**0.01**	**0.31**	**0.00**	**0.01**	**0.01**		**247.30**		**0.02**		**247.63**

3.4 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.17	34.66	23.45	0.04		2.28	2.28		2.28	2.28		4,040.62		0.46		4,050.31
Total	**5.17**	**34.66**	**23.45**	**0.04**		**2.28**	**2.28**		**2.28**	**2.28**		**4,040.62**		**0.46**		**4,050.31**

3.4 Building Construction - 2013

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.07	0.79	0.50	0.00	0.05	0.02	0.07	0.00	0.02	0.02		134.52		0.00		134.59
Worker	0.14	0.14	1.49	0.00	0.27	0.01	0.28	0.00	0.01	0.01		222.57		0.01		222.87
Total	**0.21**	**0.93**	**1.99**	**0.00**	**0.32**	**0.03**	**0.35**	**0.00**	**0.03**	**0.03**		**357.09**		**0.01**		**357.46**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.67	30.82	23.12	0.04		2.05	2.05		2.05	2.05	0.00	4,040.62		0.46		4,050.31
Total	**4.67**	**30.82**	**23.12**	**0.04**		**2.05**	**2.05**		**2.05**	**2.05**	**0.00**	**4,040.62**		**0.46**		**4,050.31**

3.4 Building Construction - 2013

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.07	0.79	0.50	0.00	0.05	0.02	0.07	0.00	0.02	0.02		134.52		0.00		134.59
Worker	0.14	0.14	1.49	0.00	0.27	0.01	0.28	0.00	0.01	0.01		222.57		0.01		222.87
Total	**0.21**	**0.93**	**1.99**	**0.00**	**0.32**	**0.03**	**0.35**	**0.00**	**0.03**	**0.03**		**357.09**		**0.01**		**357.46**

3.4 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02		4,040.61		0.42		4,049.51
Total	**4.74**	**32.06**	**23.20**	**0.04**		**2.02**	**2.02**		**2.02**	**2.02**		**4,040.61**		**0.42**		**4,049.51**

3.4 Building Construction - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.07	0.73	0.45	0.00	0.05	0.02	0.07	0.00	0.02	0.02		134.83		0.00		134.89
Worker	0.13	0.12	1.35	0.00	0.27	0.01	0.28	0.00	0.01	0.01		218.01		0.01		218.28
Total	**0.20**	**0.85**	**1.80**	**0.00**	**0.32**	**0.03**	**0.35**	**0.00**	**0.03**	**0.03**		**352.84**		**0.01**		**353.17**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.36	28.88	22.92	0.04		1.89	1.89		1.89	1.89	0.00	4,040.61		0.42		4,049.51
Total	**4.36**	**28.88**	**22.92**	**0.04**		**1.89**	**1.89**		**1.89**	**1.89**	**0.00**	**4,040.61**		**0.42**		**4,049.51**

3.4 Building Construction - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.07	0.73	0.45	0.00	0.05	0.02	0.07	0.00	0.02	0.02		134.83		0.00		134.89
Worker	0.13	0.12	1.35	0.00	0.27	0.01	0.28	0.00	0.01	0.01		218.01		0.01		218.28
Total	**0.20**	**0.85**	**1.80**	**0.00**	**0.32**	**0.03**	**0.35**	**0.00**	**0.03**	**0.03**		**352.84**		**0.01**		**353.17**

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.20	32.09	20.70	0.03		2.74	2.74		2.74	2.74		2,917.65		0.47		2,927.48
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**5.20**	**32.09**	**20.70**	**0.03**		**2.74**	**2.74**		**2.74**	**2.74**		**2,917.65**		**0.47**		**2,927.48**

3.5 Paving - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	1.13	0.00	0.22	0.01	0.23	0.00	0.01	0.01		181.67		0.01		181.90
Total	**0.11**	**0.10**	**1.13**	**0.00**	**0.22**	**0.01**	**0.23**	**0.00**	**0.01**	**0.01**		**181.67**		**0.01**		**181.90**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.20	32.09	20.70	0.03		2.74	2.74		2.74	2.74	0.00	2,917.65		0.47		2,927.48
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**5.20**	**32.09**	**20.70**	**0.03**		**2.74**	**2.74**		**2.74**	**2.74**	**0.00**	**2,917.65**		**0.47**		**2,927.48**

3.5 Paving - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	1.13	0.00	0.22	0.01	0.23	0.00	0.01	0.01		181.67		0.01		181.90
Total	**0.11**	**0.10**	**1.13**	**0.00**	**0.22**	**0.01**	**0.23**	**0.00**	**0.01**	**0.01**		**181.67**		**0.01**		**181.90**

3.6 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.13					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24		281.19		0.04		282.03
Total	**28.58**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**		**281.19**		**0.04**		**282.03**

3.6 Architectural Coating - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.30	0.00	0.06	0.00	0.06	0.00	0.00	0.00		48.45		0.00		48.51
Total	**0.03**	**0.03**	**0.30**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**		**48.45**		**0.00**		**48.51**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.13					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04		282.03
Total	**28.58**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**	**0.00**	**281.19**		**0.04**		**282.03**

3.6 Architectural Coating - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.30	0.00	0.06	0.00	0.06	0.00	0.00	0.00		48.45		0.00		48.51
Total	**0.03**	**0.03**	**0.30**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**		**48.45**		**0.00**		**48.51**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.72	5.00	23.82	0.03	3.69	0.17	3.86	0.05	0.16	0.21		3,489.94		0.19		3,494.00
Unmitigated	2.72	5.00	23.82	0.03	3.69	0.17	3.86	0.05	0.16	0.21		3,489.94		0.19		3,494.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	500.00	500.00	500.00	1,116,183	1,116,183
Total	500.00	500.00	500.00	1,116,183	1,116,183

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Single Family Housing	12.40	4.30	5.40	26.10	29.10	44.80

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.06	0.49	0.21	0.00		0.00	0.04		0.00	0.04		621.84		0.01	0.01	625.63
NaturalGas Unmitigated	0.06	0.49	0.21	0.00		0.00	0.04		0.00	0.04		621.84		0.01	0.01	625.63
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Single Family Housing	5285.67	0.06	0.49	0.21	0.00		0.00	0.04		0.00	0.04		621.84		0.01	0.01	625.63
Total		**0.06**	**0.49**	**0.21**	**0.00**		**0.00**	**0.04**		**0.00**	**0.04**		**621.84**		**0.01**	**0.01**	**625.63**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Single Family Housing	5.28567	0.06	0.49	0.21	0.00		0.00	0.04		0.00	0.04		621.84		0.01	0.01	625.63
Total		**0.06**	**0.49**	**0.21**	**0.00**		**0.00**	**0.04**		**0.00**	**0.04**		**621.84**		**0.01**	**0.01**	**625.63**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	48.96	0.79	67.73	0.05		0.00	9.11		0.00	9.10	1,005.82	328.69		1.63	0.06	1,388.59
Unmitigated	48.96	0.79	67.73	0.05		0.00	9.11		0.00	9.10	1,005.82	328.69		1.63	0.06	1,388.59
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.77					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.93					0.00	0.00		0.00	0.00						0.00
Hearth	46.12	0.74	63.43	0.05		0.00	9.08		0.00	9.08	1,005.82	321.18		1.62	0.06	1,380.90
Landscaping	0.14	0.05	4.30	0.00		0.00	0.02		0.00	0.02		7.52		0.01		7.69
Total	**48.96**	**0.79**	**67.73**	**0.05**		**0.00**	**9.10**		**0.00**	**9.10**	**1,005.82**	**328.70**		**1.63**	**0.06**	**1,388.59**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.77					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.93					0.00	0.00		0.00	0.00						0.00
Hearth	46.12	0.74	63.43	0.05		0.00	9.08		0.00	9.08	1,005.82	321.18		1.62	0.06	1,380.90
Landscaping	0.14	0.05	4.30	0.00		0.00	0.02		0.00	0.02		7.52		0.01		7.69
Total	**48.96**	**0.79**	**67.73**	**0.05**		**0.00**	**9.10**		**0.00**	**9.10**	**1,005.82**	**328.70**		**1.63**	**0.06**	**1,388.59**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Lund Ranch

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	50	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	4	**Precipitation Freq (Days)**	64		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - CalEE default begins construction in 2011

Off-road Equipment -

Demolition -

Vehicle Trips - Data provided by project Traffic Consultant

Construction Off-road Equipment Mitigation -

Off-road Equipment -

Off-road Equipment -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2012	0.09	0.73	0.44	0.00	0.02	0.04	0.06	0.00	0.04	0.04	0.00	68.70	68.70	0.01	0.00	68.85
2013	0.80	5.56	3.74	0.01	0.16	0.33	0.50	0.05	0.33	0.39	0.00	607.26	607.26	0.06	0.00	608.62
2014	1.65	1.60	1.19	0.00	0.01	0.11	0.12	0.00	0.11	0.11	0.00	179.54	179.54	0.02	0.00	179.96
Total	**2.54**	**7.89**	**5.37**	**0.01**	**0.19**	**0.48**	**0.68**	**0.05**	**0.48**	**0.54**	**0.00**	**855.50**	**855.50**	**0.09**	**0.00**	**857.43**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2012	0.06	0.38	0.41	0.00	0.02	0.03	0.04	0.00	0.03	0.03	0.00	68.70	68.70	0.01	0.00	68.85
2013	0.68	4.41	3.75	0.01	0.08	0.29	0.37	0.02	0.29	0.31	0.00	607.26	607.26	0.06	0.00	608.62
2014	1.64	1.49	1.18	0.00	0.01	0.11	0.12	0.00	0.11	0.11	0.00	179.54	179.54	0.02	0.00	179.96
Total	**2.38**	**6.28**	**5.34**	**0.01**	**0.11**	**0.43**	**0.53**	**0.02**	**0.43**	**0.45**	**0.00**	**855.50**	**855.50**	**0.09**	**0.00**	**857.43**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.38	0.03	2.81	0.00		0.00	0.35		0.00	0.35	33.60	12.56	46.16	0.04	0.00	47.80
Energy	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	198.15	198.15	0.01	0.00	199.37
Mobile	0.46	0.92	4.33	0.01	0.54	0.03	0.57	0.01	0.03	0.04	0.00	532.04	532.04	0.03	0.00	532.70
Waste						0.00	0.00		0.00	0.00	12.19	0.00	12.19	0.72	0.00	27.32
Water						0.00	0.00		0.00	0.00	0.00	7.26	7.26	0.10	0.00	10.15
Total	**2.85**	**1.04**	**7.18**	**0.01**	**0.54**	**0.03**	**0.93**	**0.01**	**0.03**	**0.40**	**45.79**	**750.01**	**795.80**	**0.90**	**0.00**	**817.34**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.38	0.03	2.81	0.00		0.00	0.35		0.00	0.35	33.60	12.56	46.16	0.04	0.00	47.80
Energy	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	198.15	198.15	0.01	0.00	199.37
Mobile	0.46	0.92	4.33	0.01	0.54	0.03	0.57	0.01	0.03	0.04	0.00	532.04	532.04	0.03	0.00	532.70
Waste						0.00	0.00		0.00	0.00	12.19	0.00	12.19	0.72	0.00	27.32
Water						0.00	0.00		0.00	0.00	0.00	7.26	7.26	0.10	0.00	10.15
Total	**2.85**	**1.04**	**7.18**	**0.01**	**0.54**	**0.03**	**0.93**	**0.01**	**0.03**	**0.40**	**45.79**	**750.01**	**795.80**	**0.90**	**0.00**	**817.34**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

3.2 Demolition - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.71	0.42	0.00		0.04	0.04		0.04	0.04	0.00	64.71	64.71	0.01	0.00	64.86
Total	**0.09**	**0.71**	**0.42**	**0.00**	**0.01**	**0.04**	**0.05**	**0.00**	**0.04**	**0.04**	**0.00**	**64.71**	**64.71**	**0.01**	**0.00**	**64.86**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.02	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	2.50	2.50	0.00	0.00	2.51
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.48	1.48	0.00	0.00	1.49
Total	**0.00**	**0.02**	**0.02**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**3.98**	**3.98**	**0.00**	**0.00**	**4.00**

3.2 Demolition - 2012

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.36	0.39	0.00		0.03	0.03		0.03	0.03	0.00	64.71	64.71	0.01	0.00	64.86
Total	**0.05**	**0.36**	**0.39**	**0.00**	**0.00**	**0.03**	**0.03**	**0.00**	**0.03**	**0.03**	**0.00**	**64.71**	**64.71**	**0.01**	**0.00**	**64.86**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.02	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	2.50	2.50	0.00	0.00	2.51
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.48	1.48	0.00	0.00	1.49
Total	**0.00**	**0.02**	**0.02**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**3.98**	**3.98**	**0.00**	**0.00**	**4.00**

3.3 Grading - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.18	1.46	0.79	0.00		0.07	0.07		0.07	0.07	0.00	147.69	147.69	0.01	0.00	148.00
Total	**0.18**	**1.46**	**0.79**	**0.00**	**0.13**	**0.07**	**0.20**	**0.05**	**0.07**	**0.12**	**0.00**	**147.69**	**147.69**	**0.01**	**0.00**	**148.00**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.06	3.06	0.00	0.00	3.06
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.06**	**3.06**	**0.00**	**0.00**	**3.06**

3.3 Grading - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.05	0.00	0.05	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.12	0.75	0.85	0.00		0.05	0.05		0.05	0.05	0.00	147.69	147.69	0.01	0.00	148.00
Total	**0.12**	**0.75**	**0.85**	**0.00**	**0.05**	**0.05**	**0.10**	**0.02**	**0.05**	**0.07**	**0.00**	**147.69**	**147.69**	**0.01**	**0.00**	**148.00**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.06	3.06	0.00	0.00	3.06
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.06**	**3.06**	**0.00**	**0.00**	**3.06**

3.4 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.59	3.99	2.70	0.00		0.26	0.26		0.26	0.26	0.00	421.43	421.43	0.05	0.00	422.44
Total	**0.59**	**3.99**	**2.70**	**0.00**		**0.26**	**0.26**		**0.26**	**0.26**	**0.00**	**421.43**	**421.43**	**0.05**	**0.00**	**422.44**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.09	0.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.99	13.99	0.00	0.00	13.99
Worker	0.02	0.02	0.16	0.00	0.02	0.00	0.03	0.00	0.00	0.00	0.00	21.10	21.10	0.00	0.00	21.13
Total	**0.03**	**0.11**	**0.22**	**0.00**	**0.02**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**35.09**	**35.09**	**0.00**	**0.00**	**35.12**

3.4 Building Construction - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.54	3.54	2.66	0.00		0.24	0.24		0.24	0.24	0.00	421.43	421.43	0.05	0.00	422.44
Total	**0.54**	**3.54**	**2.66**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**	**0.00**	**421.43**	**421.43**	**0.05**	**0.00**	**422.44**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.09	0.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.99	13.99	0.00	0.00	13.99
Worker	0.02	0.02	0.16	0.00	0.02	0.00	0.03	0.00	0.00	0.00	0.00	21.10	21.10	0.00	0.00	21.13
Total	**0.03**	**0.11**	**0.22**	**0.00**	**0.02**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**35.09**	**35.09**	**0.00**	**0.00**	**35.12**

3.4 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.16	1.11	0.80	0.00		0.07	0.07		0.07	0.07	0.00	126.43	126.43	0.01	0.00	126.71
Total	**0.16**	**1.11**	**0.80**	**0.00**		**0.07**	**0.07**		**0.07**	**0.07**	**0.00**	**126.43**	**126.43**	**0.01**	**0.00**	**126.71**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.20	4.20	0.00	0.00	4.21
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	6.20	6.20	0.00	0.00	6.21
Total	**0.00**	**0.02**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**10.40**	**10.40**	**0.00**	**0.00**	**10.42**

3.4 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.15	1.00	0.79	0.00		0.07	0.07		0.07	0.07	0.00	126.43	126.43	0.01	0.00	126.71
Total	**0.15**	**1.00**	**0.79**	**0.00**		**0.07**	**0.07**		**0.07**	**0.07**	**0.00**	**126.43**	**126.43**	**0.01**	**0.00**	**126.71**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.20	4.20	0.00	0.00	4.21
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	6.20	6.20	0.00	0.00	6.21
Total	**0.00**	**0.02**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**10.40**	**10.40**	**0.00**	**0.00**	**10.42**

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.05	0.32	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.55
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.05**	**0.32**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.55**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	1.50	0.00	0.00	1.50
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.50**	**1.50**	**0.00**	**0.00**	**1.50**

3.5 Paving - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.05	0.32	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.55
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.05**	**0.32**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.55**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	1.50	0.00	0.00	1.50
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.50**	**1.50**	**0.00**	**0.00**	**1.50**

3.6 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.41					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.14	0.10	0.00		0.01	0.01		0.01	0.01	0.00	12.75	12.75	0.00	0.00	12.79
Total	**1.43**	**0.14**	**0.10**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**12.75**	**12.75**	**0.00**	**0.00**	**12.79**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	2.00
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**0.00**	**0.00**	**2.00**

3.6 Architectural Coating - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.41					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.14	0.10	0.00		0.01	0.01		0.01	0.01	0.00	12.75	12.75	0.00	0.00	12.79
Total	**1.43**	**0.14**	**0.10**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**12.75**	**12.75**	**0.00**	**0.00**	**12.79**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	2.00
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**0.00**	**0.00**	**2.00**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.46	0.92	4.33	0.01	0.54	0.03	0.57	0.01	0.03	0.04	0.00	532.04	532.04	0.03	0.00	532.70
Unmitigated	0.46	0.92	4.33	0.01	0.54	0.03	0.57	0.01	0.03	0.04	0.00	532.04	532.04	0.03	0.00	532.70
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	500.00	500.00	500.00	1,116,183	1,116,183
Total	500.00	500.00	500.00	1,116,183	1,116,183

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Single Family Housing	12.40	4.30	5.40	26.10	29.10	44.80

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	95.19	95.19	0.00	0.00	95.79
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	95.19	95.19	0.00	0.00	95.79
NaturalGas Mitigated	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	102.95	102.95	0.00	0.00	103.58
NaturalGas Unmitigated	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	102.95	102.95	0.00	0.00	103.58
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Single Family Housing	1.92927e+006	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	102.95	102.95	0.00	0.00	103.58
Total		**0.01**	**0.09**	**0.04**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**	**0.00**	**102.95**	**102.95**	**0.00**	**0.00**	**103.58**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Single Family Housing	1.92927e+006	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	102.95	102.95	0.00	0.00	103.58
Total		**0.01**	**0.09**	**0.04**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**	**0.00**	**102.95**	**102.95**	**0.00**	**0.00**	**103.58**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Single Family Housing	327220					95.19	0.00	0.00	95.79
Total						**95.19**	**0.00**	**0.00**	**95.79**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Single Family Housing	327220					95.19	0.00	0.00	95.79
Total						**95.19**	**0.00**	**0.00**	**95.79**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.38	0.03	2.81	0.00		0.00	0.35		0.00	0.35	33.60	12.56	46.16	0.04	0.00	47.80
Unmitigated	2.38	0.03	2.81	0.00		0.00	0.35		0.00	0.35	33.60	12.56	46.16	0.04	0.00	47.80
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.14					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.35					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	1.87	0.03	2.43	0.00		0.00	0.34		0.00	0.34	33.60	11.95	45.55	0.04	0.00	47.18
Landscaping	0.01	0.00	0.39	0.00		0.00	0.00		0.00	0.00	0.00	0.61	0.61	0.00	0.00	0.63
Total	**2.37**	**0.03**	**2.82**	**0.00**		**0.00**	**0.34**		**0.00**	**0.34**	**33.60**	**12.56**	**46.16**	**0.04**	**0.00**	**47.81**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.14					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.35					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	1.87	0.03	2.43	0.00		0.00	0.34		0.00	0.34	33.60	11.95	45.55	0.04	0.00	47.18
Landscaping	0.01	0.00	0.39	0.00		0.00	0.00		0.00	0.00	0.00	0.61	0.61	0.00	0.00	0.63
Total	**2.37**	**0.03**	**2.82**	**0.00**		**0.00**	**0.34**		**0.00**	**0.34**	**33.60**	**12.56**	**46.16**	**0.04**	**0.00**	**47.81**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					7.26	0.10	0.00	10.15
Unmitigated					7.26	0.10	0.00	10.15
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Single Family Housing	3.2577 / 2.05377					7.26	0.10	0.00	10.15
Total						**7.26**	**0.10**	**0.00**	**10.15**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Single Family Housing	3.2577 / 2.05377					7.26	0.10	0.00	10.15
Total						**7.26**	**0.10**	**0.00**	**10.15**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					12.19	0.72	0.00	27.32
Unmitigated					12.19	0.72	0.00	27.32
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Single Family Housing	60.06					12.19	0.72	0.00	27.32
Total						**12.19**	**0.72**	**0.00**	**27.32**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Single Family Housing	60.06					12.19	0.72	0.00	27.32
Total						**12.19**	**0.72**	**0.00**	**27.32**

9.0 Vegetation

```
 AERSCREEN 11126 / AERMOD  1135
03/09/12

11:00:49

 TITLE: Lund Annual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-----
 ****************************  VOLUME PARAMETERS
****************************
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-----

 SOURCE EMISSION RATE:         0.945E-02 g/s             0.750E-01 lb/hr
 VOLUME HEIGHT:                     9.75 meters              32.00 feet
 INITIAL LATERAL DIMENSION:       113.39 meters             372.00 feet
 INITIAL VERTICAL DIMENSION:        4.57 meters              15.00 feet
 RURAL OR URBAN:                   URBAN
 POPULATION:                       74000

 FLAGPOLE RECEPTOR HEIGHT:          1.52 meters               5.00 feet

 INITIAL PROBE DISTANCE =          5000. meters             16404. feet



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-----
 ************************  BUILDING DOWNWASH PARAMETERS
**********************
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                BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES


 **************************  PROBE ANALYSIS  ***************************
                  25 meter receptor spacing: 245. meters - 5000. meters


      Zo       ROUGHNESS       1-HR CONC   DIST      TEMPORAL
      SECTOR     LENGTH         (ug/m3)     (m)       PERIOD
      ---------------------------------------------------------------------
---
       1*         1.000        0.6963       244.8      WIN
 * = worst case flow sector



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 **********************  MAKEMET METEOROLOGY PARAMETERS
********************
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-----

 MIN/MAX TEMPERATURE:    249.8 / 310.9 (K)

 MINIMUM WIND SPEED:       2.0 m/s

 ANEMOMETER HEIGHT:     10.000 meters

 SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

 DOMINANT SURFACE PROFILE: Urban
 DOMINANT CLIMATE TYPE:    Average Moisture
 DOMINANT SEASON:          Winter

 ALBEDO:                  0.35
 BOWEN RATIO:             1.50
 ROUGHNESS LENGTH:       1.000 (meters)


        METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
        -------------------------------------------------------------

  YR MO DY JDY HR
  -- -- -- --- --
  10 01 01   1 01

     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO
REF WS
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -
 -18.63  0.174 -9.000  0.020 -999.  167.     21.6 1.000   1.50   0.35
2.00

     HT  REF TA     HT
 - - - - - - - - - - -
   10.0   249.8    2.0


        METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT
        --------------------------------------------------------------

  YR MO DY JDY HR
  -- -- -- --- --
  10 01 01   1 01

     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO
REF WS
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -
 -18.63  0.174 -9.000  0.020 -999.  167.     21.6 1.000   1.50   0.35
2.00
```

```
     HT  REF TA     HT
 - - - - - - - - - - -
   10.0   249.8    2.0


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-----
 ************************ AERSCREEN AUTOMATED DISTANCES
**********************
                   OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
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DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
244.78	0.6963	2625.00	0.5609E-01
250.00	0.6872	2650.00	0.5538E-01
275.00	0.6458	2675.00	0.5470E-01
300.00	0.6077	2700.00	0.5402E-01
325.00	0.5729	2725.00	0.5337E-01
350.00	0.5409	2750.00	0.5272E-01
375.00	0.5116	2775.00	0.5209E-01
400.00	0.4847	2800.00	0.5147E-01
425.00	0.4600	2825.00	0.5086E-01
450.00	0.4372	2850.00	0.5027E-01
475.00	0.4161	2875.00	0.4968E-01
500.00	0.3966	2900.00	0.4911E-01
525.00	0.3786	2925.00	0.4855E-01
550.00	0.3618	2950.00	0.4800E-01
575.00	0.3462	2975.00	0.4746E-01
600.00	0.3317	3000.00	0.4693E-01
625.00	0.3182	3025.00	0.4641E-01
650.00	0.3055	3050.00	0.4591E-01
675.00	0.2936	3075.00	0.4541E-01
700.00	0.2825	3100.00	0.4491E-01
725.00	0.2721	3125.00	0.4443E-01
750.00	0.2623	3150.00	0.4396E-01
775.00	0.2530	3175.00	0.4349E-01
800.00	0.2443	3200.00	0.4304E-01
825.00	0.2361	3225.00	0.4259E-01
850.00	0.2283	3250.00	0.4215E-01
875.00	0.2209	3275.00	0.4172E-01
900.00	0.2140	3300.00	0.4129E-01
925.00	0.2073	3325.00	0.4088E-01
950.00	0.2011	3350.00	0.4046E-01
975.00	0.1951	3375.00	0.4006E-01
1000.00	0.1894	3400.00	0.3966E-01
1025.00	0.1840	3425.00	0.3928E-01
1050.00	0.1789	3450.00	0.3889E-01

1075.00	0.1739	3475.00	0.3851E-01
1100.00	0.1692	3500.00	0.3814E-01
1125.00	0.1648	3525.00	0.3778E-01
1150.00	0.1605	3550.00	0.3742E-01
1175.00	0.1564	3575.00	0.3707E-01
1200.00	0.1524	3600.00	0.3672E-01
1225.00	0.1487	3625.00	0.3638E-01
1250.00	0.1450	3650.00	0.3604E-01
1275.00	0.1416	3675.00	0.3571E-01
1300.00	0.1382	3700.00	0.3539E-01
1325.00	0.1350	3725.00	0.3507E-01
1350.00	0.1320	3750.00	0.3475E-01
1375.00	0.1290	3775.00	0.3444E-01
1400.00	0.1262	3800.00	0.3414E-01
1425.00	0.1234	3825.00	0.3383E-01
1450.00	0.1208	3850.00	0.3354E-01
1475.00	0.1182	3875.00	0.3325E-01
1500.00	0.1157	3900.00	0.3296E-01
1525.00	0.1134	3925.00	0.3268E-01
1550.00	0.1111	3950.00	0.3240E-01
1575.00	0.1088	3975.00	0.3212E-01
1600.00	0.1067	4000.00	0.3185E-01
1625.00	0.1046	4025.00	0.3159E-01
1650.00	0.1026	4050.00	0.3132E-01
1675.00	0.1007	4075.00	0.3106E-01
1700.00	0.9880E-01	4100.00	0.3081E-01
1725.00	0.9697E-01	4125.00	0.3056E-01
1750.00	0.9521E-01	4150.00	0.3031E-01
1775.00	0.9349E-01	4175.00	0.3007E-01
1800.00	0.9183E-01	4200.00	0.2983E-01
1825.00	0.9022E-01	4225.00	0.2959E-01
1850.00	0.8866E-01	4250.00	0.2935E-01
1875.00	0.8714E-01	4275.00	0.2912E-01
1900.00	0.8566E-01	4300.00	0.2890E-01
1925.00	0.8423E-01	4325.00	0.2867E-01
1950.00	0.8283E-01	4350.00	0.2845E-01
1975.00	0.8148E-01	4375.00	0.2823E-01
2000.00	0.8016E-01	4400.00	0.2802E-01
2025.00	0.7888E-01	4425.00	0.2781E-01
2050.00	0.7763E-01	4450.00	0.2760E-01
2075.00	0.7642E-01	4475.00	0.2739E-01
2100.00	0.7523E-01	4500.00	0.2719E-01
2125.00	0.7408E-01	4525.00	0.2699E-01
2150.00	0.7296E-01	4550.00	0.2679E-01
2175.00	0.7186E-01	4575.00	0.2660E-01
2200.00	0.7080E-01	4600.00	0.2640E-01
2225.00	0.6976E-01	4625.00	0.2621E-01
2250.00	0.6874E-01	4650.00	0.2603E-01
2275.00	0.6775E-01	4675.00	0.2584E-01
2300.00	0.6679E-01	4700.00	0.2566E-01
2325.00	0.6585E-01	4725.00	0.2548E-01
2350.00	0.6492E-01	4750.00	0.2530E-01
2375.00	0.6403E-01	4775.00	0.2513E-01
2400.00	0.6315E-01	4800.00	0.2495E-01

2425.00	0.6229E-01	4825.00	0.2478E-01
2450.00	0.6145E-01	4850.00	0.2461E-01
2475.00	0.6063E-01	4875.00	0.2445E-01
2500.00	0.5983E-01	4900.00	0.2428E-01
2525.00	0.5905E-01	4925.00	0.2412E-01
2550.00	0.5829E-01	4950.00	0.2396E-01
2575.00	0.5754E-01	4975.00	0.2380E-01
2600.00	0.5680E-01	5000.00	0.2365E-01

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.6963	0.6963	0.6266	0.4178	0.6963E-01

DISTANCE FROM SOURCE 244.78 meters

IMPACT AT THE AMBIENT BOUNDARY	0.6963	0.6963	0.6266	0.4178	0.6963E-01

DISTANCE FROM SOURCE 244.78 meters

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 AERSCREEN 11126 / AERMOD  1135
03/09/12

11:05:01

 TITLE: Lund Cumulative


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 ****************************  VOLUME PARAMETERS
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 SOURCE EMISSION RATE:            0.0127 g/s                 0.101 lb/hr
 VOLUME HEIGHT:                     9.75 meters              32.00 feet
 INITIAL LATERAL DIMENSION:       113.39 meters             372.00 feet
 INITIAL VERTICAL DIMENSION:        4.57 meters              15.00 feet
 RURAL OR URBAN:                   URBAN
 POPULATION:                       74000

 FLAGPOLE RECEPTOR HEIGHT:          1.52 meters               5.00 feet

 INITIAL PROBE DISTANCE =          5000. meters             16404. feet



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-----
 ************************  BUILDING DOWNWASH PARAMETERS
**********************
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-----

                BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES


 **************************  PROBE ANALYSIS  ***************************
                  25 meter receptor spacing: 245. meters - 5000. meters


      Zo       ROUGHNESS       1-HR CONC   DIST      TEMPORAL
      SECTOR     LENGTH         (ug/m3)     (m)       PERIOD
      ---------------------------------------------------------------------
---
       1*         1.000        0.9379       244.8      WIN
 * = worst case flow sector



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 **********************  MAKEMET METEOROLOGY PARAMETERS
********************
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-----

 MIN/MAX TEMPERATURE:    249.8 / 310.9 (K)

 MINIMUM WIND SPEED:       2.0 m/s

 ANEMOMETER HEIGHT:     10.000 meters

 SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

 DOMINANT SURFACE PROFILE: Urban
 DOMINANT CLIMATE TYPE:    Average Moisture
 DOMINANT SEASON:          Winter

 ALBEDO:                  0.35
 BOWEN RATIO:             1.50
 ROUGHNESS LENGTH:       1.000 (meters)


        METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
        -------------------------------------------------------------

  YR MO DY JDY HR
  -- -- -- --- --
  10 01 01   1 01

     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO
REF WS
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -
 -18.63  0.174 -9.000  0.020 -999.  167.     21.6 1.000   1.50   0.35
2.00

     HT  REF TA     HT
 - - - - - - - - - - -
   10.0   249.8    2.0


        METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT
        --------------------------------------------------------------

  YR MO DY JDY HR
  -- -- -- --- --
  10 01 01   1 01

     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO
REF WS
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -
 -18.63  0.174 -9.000  0.020 -999.  167.     21.6 1.000   1.50   0.35
2.00
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     HT  REF TA     HT
 - - - - - - - - - - -
   10.0   249.8    2.0


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 ************************ AERSCREEN AUTOMATED DISTANCES
**********************
                   OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
 ---------------------------------------------------------------------------
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DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
244.78	0.9379	2625.00	0.7555E-01
250.00	0.9257	2650.00	0.7461E-01
275.00	0.8699	2675.00	0.7368E-01
300.00	0.8187	2700.00	0.7278E-01
325.00	0.7717	2725.00	0.7189E-01
350.00	0.7287	2750.00	0.7102E-01
375.00	0.6892	2775.00	0.7017E-01
400.00	0.6530	2800.00	0.6933E-01
425.00	0.6196	2825.00	0.6852E-01
450.00	0.5889	2850.00	0.6771E-01
475.00	0.5605	2875.00	0.6693E-01
500.00	0.5343	2900.00	0.6616E-01
525.00	0.5100	2925.00	0.6540E-01
550.00	0.4874	2950.00	0.6466E-01
575.00	0.4664	2975.00	0.6394E-01
600.00	0.4468	3000.00	0.6322E-01
625.00	0.4286	3025.00	0.6252E-01
650.00	0.4115	3050.00	0.6184E-01
675.00	0.3956	3075.00	0.6116E-01
700.00	0.3806	3100.00	0.6050E-01
725.00	0.3665	3125.00	0.5985E-01
750.00	0.3533	3150.00	0.5922E-01
775.00	0.3408	3175.00	0.5859E-01
800.00	0.3291	3200.00	0.5798E-01
825.00	0.3180	3225.00	0.5737E-01
850.00	0.3075	3250.00	0.5678E-01
875.00	0.2976	3275.00	0.5620E-01
900.00	0.2882	3300.00	0.5563E-01
925.00	0.2793	3325.00	0.5506E-01
950.00	0.2709	3350.00	0.5451E-01
975.00	0.2628	3375.00	0.5397E-01
1000.00	0.2552	3400.00	0.5343E-01
1025.00	0.2479	3425.00	0.5291E-01
1050.00	0.2409	3450.00	0.5239E-01

1075.00	0.2343	3475.00	0.5188E-01
1100.00	0.2280	3500.00	0.5138E-01
1125.00	0.2219	3525.00	0.5089E-01
1150.00	0.2162	3550.00	0.5041E-01
1175.00	0.2106	3575.00	0.4993E-01
1200.00	0.2053	3600.00	0.4947E-01
1225.00	0.2003	3625.00	0.4901E-01
1250.00	0.1954	3650.00	0.4855E-01
1275.00	0.1907	3675.00	0.4811E-01
1300.00	0.1862	3700.00	0.4767E-01
1325.00	0.1819	3725.00	0.4724E-01
1350.00	0.1778	3750.00	0.4681E-01
1375.00	0.1738	3775.00	0.4640E-01
1400.00	0.1699	3800.00	0.4598E-01
1425.00	0.1662	3825.00	0.4558E-01
1450.00	0.1627	3850.00	0.4518E-01
1475.00	0.1592	3875.00	0.4479E-01
1500.00	0.1559	3900.00	0.4440E-01
1525.00	0.1527	3925.00	0.4402E-01
1550.00	0.1496	3950.00	0.4364E-01
1575.00	0.1466	3975.00	0.4327E-01
1600.00	0.1437	4000.00	0.4291E-01
1625.00	0.1409	4025.00	0.4255E-01
1650.00	0.1382	4050.00	0.4219E-01
1675.00	0.1356	4075.00	0.4185E-01
1700.00	0.1331	4100.00	0.4150E-01
1725.00	0.1306	4125.00	0.4116E-01
1750.00	0.1283	4150.00	0.4083E-01
1775.00	0.1259	4175.00	0.4050E-01
1800.00	0.1237	4200.00	0.4018E-01
1825.00	0.1215	4225.00	0.3986E-01
1850.00	0.1194	4250.00	0.3954E-01
1875.00	0.1174	4275.00	0.3923E-01
1900.00	0.1154	4300.00	0.3893E-01
1925.00	0.1135	4325.00	0.3862E-01
1950.00	0.1116	4350.00	0.3833E-01
1975.00	0.1098	4375.00	0.3803E-01
2000.00	0.1080	4400.00	0.3774E-01
2025.00	0.1063	4425.00	0.3746E-01
2050.00	0.1046	4450.00	0.3718E-01
2075.00	0.1029	4475.00	0.3690E-01
2100.00	0.1013	4500.00	0.3663E-01
2125.00	0.9979E-01	4525.00	0.3636E-01
2150.00	0.9828E-01	4550.00	0.3609E-01
2175.00	0.9681E-01	4575.00	0.3583E-01
2200.00	0.9537E-01	4600.00	0.3557E-01
2225.00	0.9397E-01	4625.00	0.3531E-01
2250.00	0.9260E-01	4650.00	0.3506E-01
2275.00	0.9127E-01	4675.00	0.3481E-01
2300.00	0.8997E-01	4700.00	0.3456E-01
2325.00	0.8870E-01	4725.00	0.3432E-01
2350.00	0.8746E-01	4750.00	0.3408E-01
2375.00	0.8625E-01	4775.00	0.3385E-01
2400.00	0.8507E-01	4800.00	0.3361E-01

2425.00	0.8391E-01	4825.00	0.3338E-01
2450.00	0.8278E-01	4850.00	0.3316E-01
2475.00	0.8168E-01	4875.00	0.3293E-01
2500.00	0.8060E-01	4900.00	0.3271E-01
2525.00	0.7955E-01	4925.00	0.3249E-01
2550.00	0.7852E-01	4950.00	0.3228E-01
2575.00	0.7751E-01	4975.00	0.3206E-01
2600.00	0.7652E-01	5000.00	0.3185E-01

********** AERSCREEN MAXIMUM IMPACT SUMMARY
****

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.9379	0.9379	0.8441	0.5628	0.9379E-01

DISTANCE FROM SOURCE 244.78 meters

IMPACT AT THE AMBIENT BOUNDARY	0.9379	0.9379	0.8441	0.5628	0.9379E-01

DISTANCE FROM SOURCE 244.78 meters

APPENDIX E

WILDLAND URBAN INTERFACE PLAN FOR LUND RANCH II

Wildland Urban Interface Plan

for

LUND RANCH II
Pleasanton, CA

Prepared by
Wildland Resource Management, Inc.
May, 2012

Approved by:

_____
Scott Deaver
Fire Marshal
Livermore – Pleasanton Fire Department

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EXECUTIVE SUMMARY

The following plan describes actions needed to maintain fuels (both vegetative and structural) in a fire-safe condition. To make vegetation management easier to implement, it is based upon (1) delineating vegetation fuel management zones, (2) establishing appropriate treatments for each, plus (3) documenting maintenance requirements and mechanisms for enforcement. Information on fire-resistant and drought-tolerant landscaping is provided so that homeowners can protect their properties against wildland fire. This plan addresses fire-resistant design and construction, based on the current fire and building codes.

In addition, the WUIP requires a stringent maintenance of the landscaping - including the pruning of smaller, lower branches of trees, and diligence in removal of all dead material.

Proposed vegetation modifications emphasize actions to decrease fire intensity that facilitate fire suppression and minimize property loss. They address development and maintenance of a defensible space zone the first 100 feet from any structure.

The same standards apply to the Roadside Fuel Management Zone, but it also requires a 15-foot vertical clearance created by tree-trimming the entire length of the roadway.

The Fuel Modification Zone extends 100 ft beyond the Defensible Space Zone, or to the boundary of each lot, whichever is closer. Similar to actions in the Defensible Space/Landscaping Zone, this zone requires treatments of grass, brush and trees.

1. Trees will be pruned as in the Defensible Space/Landscaping Zone
2. Shrubs will be spaced as in the Defensible Space Zone

Beyond the Fuel Modification Zone grass will need to be grazed or mowed within 30 ft of the property boundary if grass is not already grazed to 4 inches height or shorter by May 20. However, discing of open spaces abutting private property is not permitted.

FIRE HAZARD MITIGATION MEASURES AND OPEN SPACE MANAGEMENT

A. INTRODUCTION

Fire damage can be mitigated through changing potential ignitions and the resulting fire behavior or enhancing fire suppression capabilities. This section addresses methods to reduce fire hazard by changing potential fire behavior on the site, done by modifying both vegetative and structural fuels. This section also addresses several aspects of open space management in private lots. These include protection of special status species, tree mitigation planting, fencing and reduction of pests.

The objective for vegetation management is to modify fire behavior to reduce potential damage. In measurable terms of fire behavior, the goal of vegetation management would be to produce flame lengths shorter than two feet within 30 feet of a structure, and to less than eight feet when further than 100 ft from any structure. The area 30 feet to 100 feet from a structure serves to reduce flames from eight feet to two feet in length.

The objective for structure-related measures is to prevent ignition of the exterior of the structure, typically from a vegetative fire. Usually wildland fires burn in any one spot for a short time – usually less than 90-seconds, so creating a structure that can withstand the fire's threat for a short period of time has been the strategy of new building codes. Additionally, the building-related measures are aimed at preventing embers from entering any opening.

Open space management affects the fuels further away from structures. The actions there specifically influence the volume and distribution of fuels and access for emergency vehicles. Open space management can create conditions that are compatible with fire safety through grazing, limiting shrub growth and accumulation of dead material, and providing access for emergency vehicles. Open Space Management Plan will be compatible with this WUIP.

B. PRINCIPLES GUIDING VEGETATION MANAGEMENT

Below are strategies for reducing fire hazard and a qualitative description of actions to implement the strategy. These actions form the basis for the vegetation management standards that follow and are overarching sets of actions that may be used in every effort to reach stated objectives, from fire-resistant landscaping, roadside treatments, or treatments to facilitate fire containment

1. Fuel Management Objectives

Fuel management focuses on four strategies to increase the ability for suppression forces to contain the fire when it is small, reduce the potential structure loss or damage from a

wildland fire, and reduce the fire intensity to minimize the impact of the fire on the sites natural resources. Each of these strategies is supported by a variety of actions.

a. Strategy: Reduce fuel volumes

- Remove deadwood from trees and shrubs
- Create shrub/grass mosaics from continuous shrub masses
- Remove shrubs beneath and around existing and emerging trees
- Select low-growing shrubs and ground covers as replacement plants
- Remove/reduce plant litter accumulations, especially large debris such as branches, replace with small particle mulch to prevent invasion of noxious weeds

b. Strategy: Reduce fuel flammability

- Graze or mow grass as it cures
- Replace annual grass with plants that do not dry (or cure)
- Establish a formal irrigated landscape in carefully selected areas
- Remove sick and dead shrubs and trees in a timely manner

c. Strategy: Establish/maintain fuel discontinuity

- Remove/reduce laddering fuels
- Create shrub/grass mosaics from continuous masses
- Remove shrubs from beneath and around existing and emerging trees
- Thin thickets of small trees from large tree understories
- Create low fuel zone near windows in any structure (an especially vulnerable area)

d. Strategy: Reduce the possibility of fire traveling through tree crown

- Prune lower branches larger smaller 3 inches in diameter to 8-10 ft above ground
- Perform fuel volume reduction actions mentioned above

2. Site-Wide Management Actions

The following guidance will reduce the negative effects of fuel management. This set of guidance could apply throughout the development, and in every Fuel Management Zone. These include:

- Mowing of grasses or low herbaceous material after they have cured.
- Mowing can be replaced by other management techniques such as grazing with cattle or goats, or a prescribed burn.
- When mowing with a string line (commonly referred to as a weed whip), stay away from trees. Weed whip damage can kill trees.
- Remove noxious weeds such as yellow star thistle, black mustard, hemlock, penny-royal, spiny cocklebur, and other invasive species listed in the California Invasive Plant Council ranked as High.

- When pruning lower branches of small trees, leave six-inch stubs to strengthen young growing trunks. Continue this practice until trunk reaches two inches in diameter, at which point, entire branch can be removed.
- Prune oaks from November to April only. This will avoid attracting pests.
- Bare or disturbed soil must always be covered with mulch or hydroseeded to prevent erosion and establishment of invasive weeds. The mulch layer must be a minimum of two inches deep and can be composed of chipping from other vegetation removed.
- Limbing up and pruning generally apply only to branches smaller than three inches diameter.
- The concept behind pruning the lower 1/3 branches of small trees is to separate tree canopy from fuels on the ground without removing too much foliage area. The main justification for pruning lower branches is to prevent a fire from involving the tree crowns. Once a fire is actively burning the foliage of a tree, the ability of firefighters to suppress the fire plummets. If the branches are high, and understory fuels low, the possibility of producing a flame high enough to actively burn the tree foliage is remote.
- To enhance wildlife habitat, patches of litter will be allowed to accumulate in a variety of locations and vegetation types that are deemed to be adequately fire safe (only outside the Defensible Space Zone). These areas of refuge may be approximately 100 sq. ft. and cover an average of 10 percent of areas where litter would otherwise be removed. Spacing between patches should be no closer than 20 ft apart. Because disturbance should be avoided in these locations litter up to 6 inches deep may be allowed. As a general rule, treatments to reduce fire hazard in the patches would need to occur on a 10-15 year interval.

C. SUMMARY OF VEGETATIVE FUEL MANAGEMENT ZONES

There are four treatment zones in this Wildland Fire Management Plan:

- **The Non-combustible Zone within six feet of any structure**
- **The Defensible Space/Landscaping Zone** within six to 100 ft of any structure including the **Roadside Vegetation Management Zone** (within 10 ft from pavement edge of all roads). The Non-combustible and Defensible Space/Landscaping Zones encompass the space nearest the structures and are designed to reduce ignitions near structures, support structural survival during a wildfire, and reduce the chance that an ignition will move off site.
- The **Roadside Vegetation Management Zone** consists of vegetation near all roads and is designed to assist evacuation and emergency vehicle access and to limit roadside ignitions. The standards and actions to comply with both the Defensible Space/Landscaping Zone and the Roadside Vegetation Management Zone are the same, with one exception. In the Roadside Vegetation Management Zone there must also be a 15-foot vertical clearance created by tree-trimming the entire length of the roadway.

- **The Fuel-Modification Zone in the Development Buffer**: The fuel modification zone extends 100 ft from the Defensible Space Zone and is designed to limit fire intensity and spread by means of the pruning of trees, and reduction of understory plants.

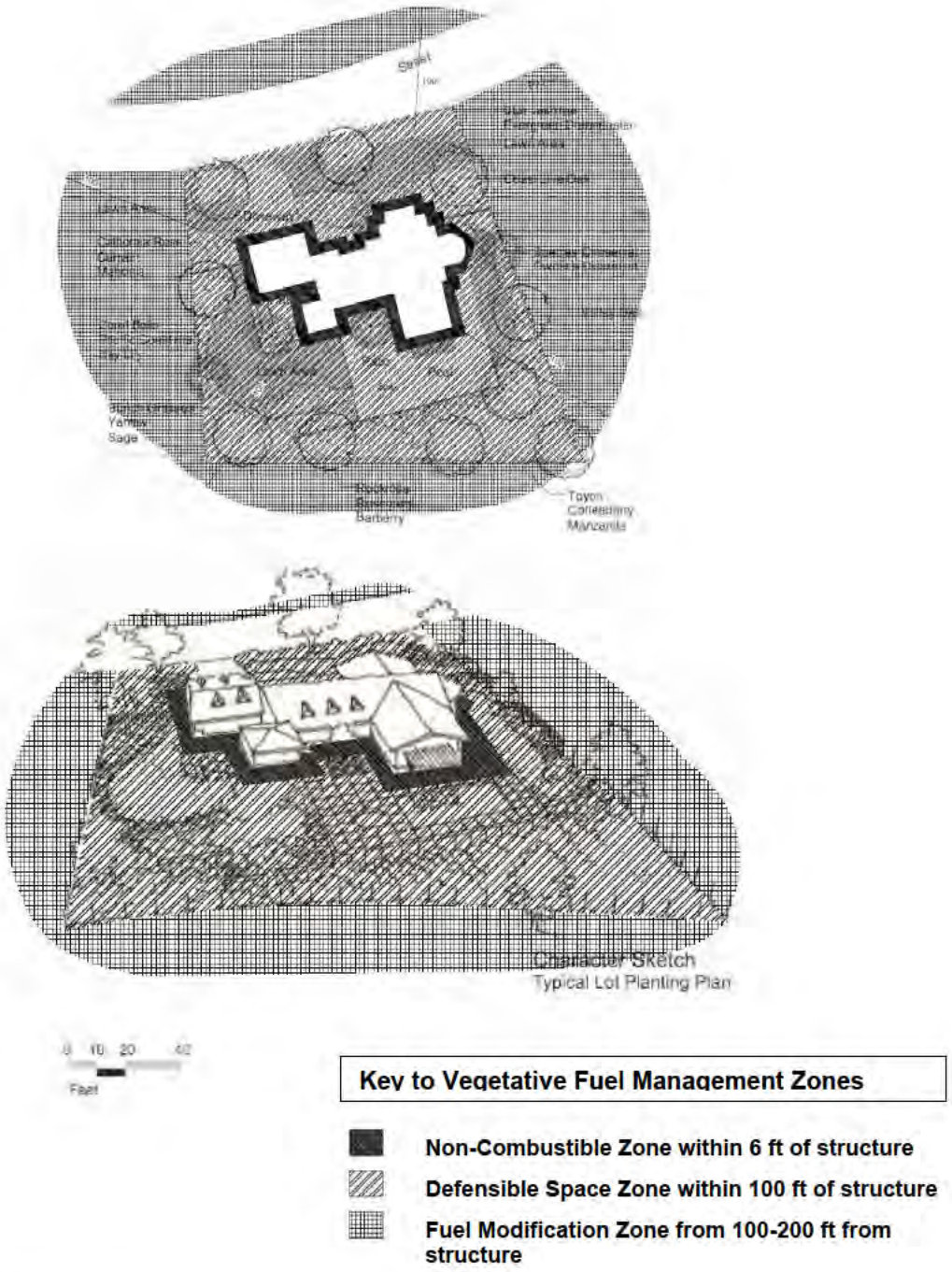


Figure A
Vegetative Fuel Management Zones - Typical

D. STANDARDS FOR NON-COMBUSTIBLE ZONE

This zone will be kept free of all dead plants and combustible materials.

- Keep the ground, decking and balconies free of dead leaves, needles or other plant debris
- Dead material that drapes over ground cover will need to be removed yearly, before June 20. This includes leaves, bark, and branches.
- Landscape features may include, paved or cobble areas and openings between masses of shrubs and trees.
- Non-irrigated native grasses may be used throughout the defensible space, except within 6 feet of structures.

E. STANDARDS FOR DEFENSIBLE SPACE/LANDSCAPING ZONE

These guidelines apply to landscape materials and conditions on residential lots in order to create and maintain a 'defensible space' around structures. Defensible space is the area within 100 ft of structures where optimum fire-resistant design features and maintenance procedures are followed. The space between 6 and 100 ft from a structure shall consist of wildfire-safe or defensible landscape zones. Defensible landscape features may include, irrigation zones, paved or cobble areas, and openings between masses of shrubs and trees.

Maintenance standards proposed in this plan will be used as criteria for certification of compliance and for directing maintenance activities in the zone within 100 feet of any structure (or to the property boundary, whichever is closer). These vegetation management actions comply with the California State PRC 4291, and the 2010 edition of the Uniform Fire Code as required by the Livermore-Pleasanton Fire Department. The proposed standards are as follow:

1. Cut grass and weeds to less than 4 inches yearly when 30% of the grasses have cured (and no later than May 10th). This may require re-mowing if late season rains promote grass growth after the first cutting. Cutting of native grass and wildflowers may be delayed until after seed set occurs, provided they do not form a means of rapidly transmitting fire to any structures. Discing is not recommended because of concerns for accelerated erosion and potential for invasion by alien pest plants.

2. All dead plants and dry vegetation shall be removed every year under trees and shrubs, including vines and semi-woody species to establish and maintain a defensible space. The ground, roofs, decking and balconies shall be kept free of dead leaves or other plant debris.

a. All vines, loose papery bark, dead branches and live branches smaller than 3 inches in diameter shall be removed from mature trees to a level 8 feet above ground. Remove all dead branches from within live ground covers, vines, shrubs, (including semi-woody species) and immature and landscape trees.

b. Branches and logs larger than 3 inches may remain as wildlife habitat as long as the material is sound, not rotten, so that if a wildfire burns prolonged smoldering does not occur.

c. Leaves, bark and humus shall be cleared every year under trees and shrubs (including vines and semi-woody species). At no time will a buildup of leaves and humus exceed one inch in depth anywhere in a landscaped area. However, bare earth will not be exposed in over 50% of the site.

d. Dead material that drapes over ground cover will need to be removed yearly, before May 10th. This includes leaves, bark, and branches.

e. All vines, loose papery bark, dead branches and live branches smaller than 3 inches in diameter shall be removed from mature trees to a level 8 feet above ground. Remove all dead branches from within live ground covers, vines, shrubs, (including semi-woody species) and immature and landscape trees.

3. Trees and large tree-form shrubs (e.g. oaks, elderberry) shall be pruned to provide clearance of 8 feet. Limbs that are smaller than three inches in diameter are to be pruned up to eight feet off the ground, and in young trees, the lower one-third of the height of the tree. Trees without leaves during the fire season (i.e. buckeye trees) need not be pruned to 8 ft, but rather 5 ft. The tree canopy must not be disturbed or thinned since this promotes growth of more flammable vegetation. Pruning is not considered as thinning the canopy. See Figure 2. As an example, a 10-foot tall tree shall be pruned on the lower three to four feet. Then as it grows to twenty-four feet in height, the eight-foot distance from ground can be achieved.

4. All branches within 15 feet of any chimney, flue, or stovepipe shall be removed.

5. A minimum 5-foot vertical clearance between roof surfaces, overhangs, and decks, and overhanging portions of trees shall be maintained.

6. All cut vegetation and hazardous refuse shall be removed and safely disposed of. Temporary storage of these materials shall be located a minimum of 30 feet from the structure. Chipped materials can remain on the site provided the mulch layer is no greater than 2 inches in depth.

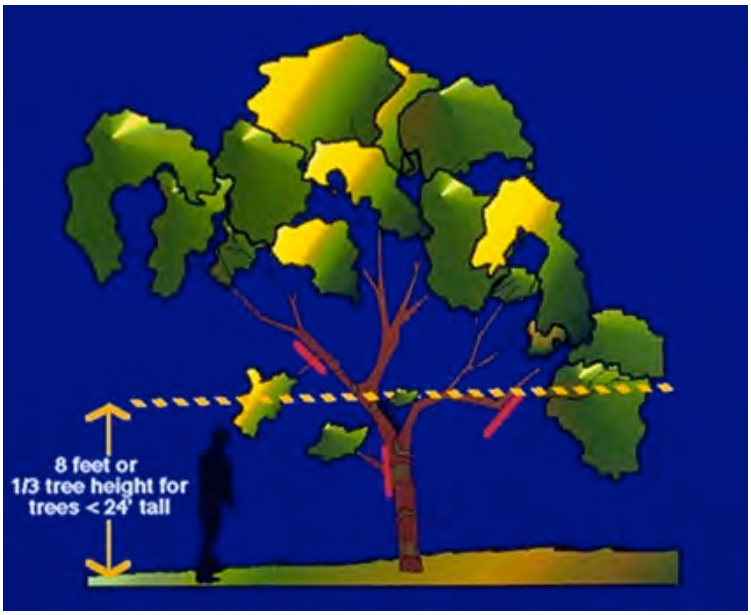


Figure 2 - Prune branches to a height of 8 ft above the ground. In young trees, prune branches on the lower one-third of the height of the tree. Do not disturb or thin the tree canopy. This promotes growth in the understory, which is more easily ignited.

7. Replacement plants (of ones that die or oaks planted as a mitigation measure) may not be located under trees. Creation of "ladder fuel situations" (where a fire can climb from one vegetation layer higher to the next) shall be avoided. Thus shrubs, including vines, semi-woody species and all chaparral species, may be near but not under trees.

8. All landscaping and replacement plants will be fire-resistant in nature. Plants which are highly ignitable and burn with intensity are prohibited. A searchable database of fire resistant and flammable landscape plants can be found at http://www.diablofiresafe.org/tolerance.html.

9. Individual plants and shrubs masses shall be managed to maintain adequate horizontal spacing. Distinct groupings of shrubs which include vines, semi-woody species, all types of brush) shall be designed to dampen the spread of fire.

Figure 3. Spacing of shrubs around young oaks

10. Plant groupings shall be small enough to provide adequate horizontal separation between groupings and to facilitate proper maintenance; groupings shall be no wider than twice the grouping height, nor exceed 120 square feet in area. The space between islands should be greater than three times the height of the shrub, or a 12-foot minimum. Emerging trees must have a minimum 12-foot spacing cleared from the edge of the canopy. See Figure 3.

F. ROADSIDE FUEL MANAGEMENT

Roadside Fuel Management Zone extends within 10 ft from pavement edge on both sides of the roads and along driveways in the Lots 31 and 32. The Roadside Vegetation Management Zone consists of vegetation near the roads and the two long driveways and is designed to assist evacuation and emergency vehicle access and to limit roadside ignitions. The standards and actions to comply with both the Defensible Space/ Landscaping Zone and the Roadside Vegetation Management Zone are the same, with one exception. In the Roadside Vegetation Management Zone there must also be a 15-foot vertical clearance created by tree-trimming the entire length of the roadway. The entity that maintains the road will also be responible for maintaining the Roadside Vegetation Management Zone.

1. Grass will be mowed for 10 ft from both sides of the pavement/road surface edge. Discing is not allowed
2. In the Roadside Vegetation Management Zone there will also need to be an unobstructed vertical clearance of 15 feet over the entire length of any roadway used for fire access.

G. STANDARDS FOR FUEL-MODIFICATION ZONE

1. Fire Hazard Reduction

The Fuel Modification Zone ensures the fuels are such that they do not exacerbate fire hazards to adjacent landowners and structures**.** The fuel modification zone extends for 100 feet beyond the Defensible Space Zone, or to the property line, whichever is closer. Because of the dimensions of most lots, this set of requirements will apply only to a few lots, including Lots 5, 8, 14, 15, 22-25, 31 and 32. Similar to actions in the Defensible Space/Landscaping Zone, this zone requires treatments of brush and trees.

a. Tree will be pruned as in the Defensible Space/Landscaping Zone
b. Shrubs will be spaced as in the Defensible Space Zone

Fire hazards will be monitored for several conditions that would merit treatment:

a. Development of an understory of shrubs beneath trees – these trees could produce and widely distribute embers if the site were to catch fire. A trigger for action would be the condition where shrubs exceed three feet in height. The treatment would be to shorten or remove the shrubs and limb the smaller, lower branches of the trees. In no situation would mature trees be removed.

b. Development of shrub masses larger than 120 ft in any direction within 250 ft of a structure. The treatment would be to either shorten the shrubs to 2-ft in height or to divide the mass into smaller groupings no larger than 12 ft across and separated by a distance twice as wide as the shrubs are tall.

H. FIRE PROTECTION DESIGN AND MATERIALS STANDARDS FOR CONSTRUCTION OF STRUCTURES AND GARDEN FEATURES

Designs should be created with a focus on the use of non-combustible materials, treatments and coatings or sizes of timber elements that are fire-safe. Non-combustible substitutes for shingles and siding can retain the feel of traditional wood construction while achieving fire-safe standards.

All structures in the project will conform to the entirety of the Pleasanton Fire Code, which currently is comprised of the International Fire Code, 2009 Edition, with a few amendments. The code requires exterior structural design and construction become ignition resistant, encompassing roofing and attic venting, building assemblies, to include exterior walls, structure projections, including, but not limited to, porches, decks, balconies, and eaves, and structure openings, including, but not limited to, eave vents and windows. In addition, the code calls for Residential automatic fire sprinklers systems to be installed in accordance to NFPA 13D in all new one- and two-family dwellings.

The following construction standards are for structures where maximum built-in fire protection measures are necessary due to steep slopes or wildland fuel loading and are recommended for use throughout the development. Structures built using these standards are ignition resistant and are less hazardous than existing structures in Pleasanton.

1. Roofing

a. Materials and Installation

All structures and residences will be constructed in conformance with UL-approved Class "A" roofing. Roofs will have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions. The roofing classification will be as required in Sections 1503 of the California Building Code.

b. Roof Coverings

Where the roof profile allows a space between the roof covering and roof decking, the spaces will be constructed to prevent the intrusion of flames and embers, be firestopped with approved materials, or have one layer of Type 72 ASTM cap sheet installed over the combustible decking.

c. Roof Valleys

When provided, valley flashings will be not less than .019-inch (.48mm) (No. 26 galvanized sheet gauge) corrosion-resistant metal installed over a minimum of 36-inch

wide underlayment consisting of one layer of Type 72 ASTM cap sheet running the full length of the valley.

2. Projections (Decks, Balconies, Porches)

a. Enclosure of Projections

Buildings will have all underfloor areas enclosed to the grade with exterior walls in accordance with Section 705A.1. (Exception: The complete enclosure of underfloor areas may be omitted where the underside of all exposed floors, exposed structural columns, beams and supporting walls are protected as required with exterior ignition-resistant material, construction or be heavy timber, or other construction approved by the Authority Having Jurisdiction)

b. Materials and Construction

Materials and construction will be consistent with Section 704A.4.1.1 of the 2007 California Building Code.

Surfaces, stair treads, risers, and landings of decks, porches and balconies within 10 feet of the primary structure will be constructed with "Ignition Resistant Materials" and comply with the performance requirements of 12-7A-5 "Deck Test Standard", or deck surfaces of heavy timber, fire retardant treated wood or non-combustible materials.

3. Roof Eaves, Soffits & Gutters

Eaves and soffits will meet the requirements of 12-7A-3 "Under Eave Test Standard" or will be protected by ignition-resistant materials or noncombustible construction on the exposed underside as approved by the Authority Having Jurisdiction.

a. Roof Gutters

Roof gutters will be provided with the means to prevent accumulation of leaves and debris.

b. Overhangs

Overhangs extending more than 10 inches will be protected by one of the following measures:

1. Uniform Building Code/Uniform Fire Code listed one-hour fire resistive assemblies with a non-combustible surface on the underside and exposed edges;
2. "Heavy timber" construction; or
3. Any other noncombustible material approved by the Building Official and Fire District. Roof overhangs that are constructed of noncombustible materials or combustible roof overhangs projecting less than 10 in. from the exterior face of the exterior wall need not be protected.

4. Exterior Siding, Walls, Openings and Windows

a. Siding Materials

Exterior siding materials will consist of "stucco" or any exterior one-hour fire-resistant–rated wall material with a noncombustible surface or any other noncombustible material

approved by the Building Official and LPFD. Trim of 1-in. minimum size may be applied on walls. Untreated wood shingles and wood shakes of any kind are not allowed.

b. Exterior Walls

Exterior walls will be approved non-combustible or ignition-resistant material, heavy timber, or log wall construction or will provide protection from the intrusion of flames and embers and temperatures capable of igniting combustibles on the inside of the wall in accordance with 12-7A-1 "Exterior Wall Test Standard" or other standards approved by the Authority Having Jurisdiction.

Exterior wall coverings will extend from the top of the foundation to the underside of the roof sheathing, terminate at 2 inch nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.

c. Exterior Wall Openings

Exterior wall openings will be in accordance with this section.

d. Exterior Glazing

Exterior windows, window walls, glazed doors, and glazed openings within exterior doors will conform to the performance requirements of 12-7A-2 "Exterior Window Test Standard" or multilayered glazing with minimum of one tempered pane, glass block or other window assemblies having a fire protection rating of not less than 20 minutes. (Exception: Non-combustible vehicle access doors).

5. Vents

a. Roof Vents

When required by Chapter 15 if the California Building Code, roof and attic vents shall resist the intrusion of flame and embers into the attic area of the structure, or shall be protected by corrosion- resistant, noncombustible wire mesh with 1/4-inch (6 mm) openings or its equivalent.

b. Under-Floor Ventilation

Under-floor ventilation will resist the intrusion of flame and embers into the area under the floor, or will be protected by corrosion resistant, non-combustible wire mesh with 1/4 inch (6 mm) openings or its equivalent.

c. Other Wall Vents

Unless otherwise prohibited by other provisions of this code, vent openings in exterior walls will resist the intrusion of flame and embers into the structure or vents will be screened with a corrosion-resistant, non-combustible wire mesh with 1/4 inch (6 mm) openings or its equivalent.

6. Fences

Fences will be constructed of either noncombustible material or of timbers with a minimum of two-inch nominal thickness. Typical fencing might include "view fencing", consisting of open wire-mesh with six-inch posts and stringers that have a minimum two-

inch nominal thickness, or steel view fencing, or “good neighbor” fencing with a minimum dimension of two-inches.

a. Accessory Buildings and Fencing

Accessory buildings, such as gazebos, barbecues, built-in fireplaces, shade structures and decks will conform to the same fire safety construction considerations as the main structure. Overhead structures (trellis and shade structures attached to or within 5 feet of a house) shall use construction materials and color detailing that complement the architecture of the house.

The smallest dimension of any wood fence element shall be 2 inches. Depending upon the location and type of fencing and walls, the fence or wall maximum height varies between 3 and 8 feet. Hedges in lieu of or planted in front of fences and walls are encouraged as long as fences are not made of wood.

7. Signage

Signing and building numbering will have a minimum letter height of 4 in. and be:

- 1/2 in. thick,
- reflectorized (or lit)
- painted a color contrasting with the background color of the sign, and
- visible within 100 ft traveling from both directions.

8. Accessory Buildings

When required by the Livermore Pleasanton Fire Department or Pleasanton Building Department ancillary and detached accessory structures will comply with the same requirements as the main structure.

a. Garden Structures

Garden structures - such as gazebos, spas, or other outbuildings—will meet the same minimum standards for ignition-resistive materials, timber size, and other requirements as described above for other structures.

b. Barbeques

A 10- foot wide and tall non-combustible zone shall be established and maintained around barbecues, separating them from all overhanging structures or trees. The non-combustible zone may be comprised of paving, cobblestones, or fireproof decking. Irrigated groundcovers may also be used in the non-combustible zone.

Barbeques must not be left unattended when in use. During use, portable barbeques must be located in an area that is surrounded by at least 100 sq ft of noncombustible material. No structures or trees should overhang the use area within a distance of 10 ft. Both the portable barbeque and the stationary barbeque should be located no farther than 15 ft from a water source (including a garden hose) or be equipped with a fire extinguisher.

c. Fireplaces : Built-in and Portable Fireplaces

Fireplaces, whether they are built-in or portable should be either no farther than 15 ft from a water source or be equipped with a fire extinguisher. During use, fireplaces must

2-ft flames within 30 ft of structure

8-ft flames from 30-100 ft from structure

be located in an area that is surrounded by at least 100 sq ft of noncombustible material. No structures or trees should overhang the use area within a distance of 10 ft. All fireplaces will be fitted at all times with a mesh spark arrestor approved per the California Building Code.

9. Smoke and Carbon Dioxide Detectors

The residence will have smoke and carbon dioxide detectors that comply with California Building Code.

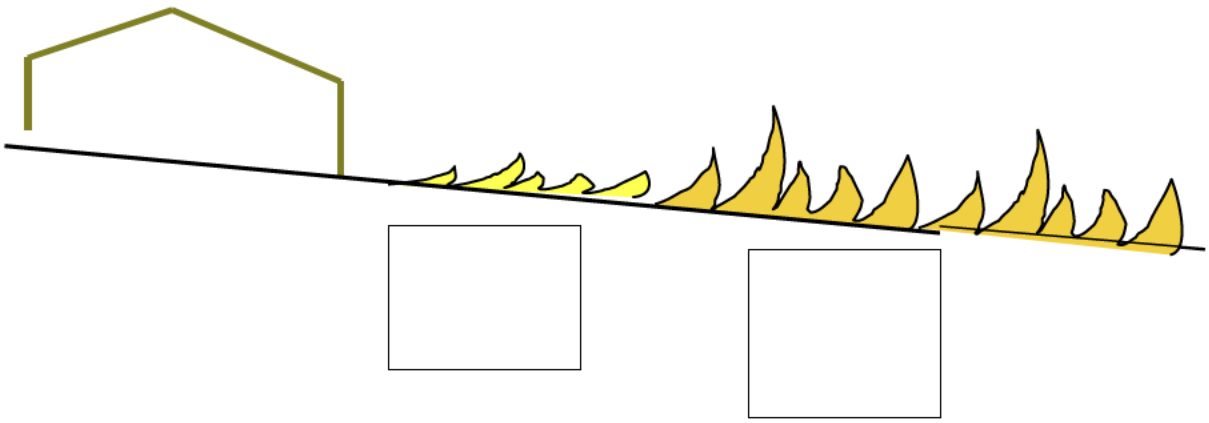
10. Residential Automatic Sprinkler Systems

Residential automatic fire sprinklers systems shall be installed in accordance to NFPA 13D in all structures in this Project. In addition, the fire-sprinkler system shall be designed and sprinklers shall be installed in:

- Attics with intermediate temperature-rated residential fire sprinklers for detection coverage, and located at a spacing equivalent to 30 feet by 30 feet centers and a maximum distance of 15 feet from outside walls.
- Garages: fire sprinklers shall be intermediate rated, quick response type, with a maximum coverage area of 130 square feet per sprinkler.

I. CONCLUSION REGARDING FIRE HAZARD POSED BY THE PROJECT

The vegetation management standards in this plan provide for landscaping and vegetation that will only produce flames that do not promote structure damage. The standards for vegetation management are such that the vegetation will produce flame lengths less than two feet within 30 ft of a structure, eight feet in the zone 30' – 100' from a structure and fire behavior that will not promote crown fires. Last, exterior structure materials and design deny access to firebrands and other flying ignition sources.



Flame lengths that are less than two feet do not produce enough heat to cause damage to ignition-resistant structures. This is because the short flame lengths are not likely to

break windows, ignite Class A roofs or non-wood siding, or distribute embers into the vents. These flame lengths do not extinguish themselves, but allow fire to burn through the property without significant damage. Flame lengths of less than two feet are typically not threatening to structure survival, nor conducive to involving pruned tree canopies. In addition, the fire(s) are expected to travel at speeds that are easily contained because available fuels will be either mowed or compact in nature.

J. CONCLUSION REGARDING IGNITION-RESISTANCE OF THE PROJECT

The mitigation measures combine to make the structures and landscaping highly ignition-resistant.

Ignition occurs when the material is heated to the point of combustion. This can be done through flame impingement, or exposure to radiant heat, or ignition from burning embers. Flames from grass mowed to 3-4 inches in height are not long enough to easily span the 100-ft Fuel Modification Zone and enter the defensible space with a “head of steam”. The landscaping itself is fire-resistant in nature, designed to keep sustained fire from spreading.

Similarly, radiant heat generated from a wildfire is generally insufficient to cause structure ignition. Studies done by the USDA Forest Service demonstrated that a wall section of T-1-11 siding would self extinguish from radiant heat unless the heat source was sustained. However, the pulse of radiant heat is typically only present from 60-90 seconds in any one place. The test data from the ignition-resistant construction required in this project demonstrate that the structures can withstand this heat for a far greater length of time, rendering them ignition resistant. Resistance to ignition from embers is provided through the non-combustible nature of the exteriors, along with vents, which are designed to prevent embers from entering.

Exterior surfaces (e.g., roofs, siding, windows) are to be non-combustible in nature, withstanding a period of heat pulse that far exceeds that produced by a wildland fire.

Although the risk from factors associated with development (mechanical use, vehicles, debris burning, electrical powerlines and smoking) may increase, management of fuels and restrictions on dangerous fire-related behavior more than offset whatever increased risk may be associated with development.

DELEGATION OF FUEL MANAGEMENT AND CONSTRUCTION RESPONSIBILITIES

A. CONSTRUCTION RESPONSIBILITIES

The project developer will be responsible for the design and construction of all shared improvements of the project including site grading, roads, driveways, emergency access roadsutilities and improvements not on private lots.

B. MANAGEMENT OF VACANT RESIDENTIAL LOTS

The Project Developer shall maintain vacant residence lots until lots are sold. Owners shall maintain their lots prior to construction. Maintenance includes adhering to these fire management guidelines.

C. MECHANISMS OF IMPLEMENTATION

1. Phasing of Maintenance Responsibility

Currently the developer has responsibility for the implementation of this Wildland Urban Interface Plan on those lands to be commonly maintained. This includes the lands in Parcel A and B. It is unknown at what point the developer will provide ownership of the common lands to the homeowner association. The homeowner association will be responsible for maintenance for the fire hazard mitigation actions called for in this report when it takes title to the open space.

2. Mechanisms for Compliance

The homeowners association will retain as an independent contractor a professional with wildland fire management expertise who will certify on an annual basis to the Livermore-Pleasanton Fire Department that the area encompassed by this plan has been maintained as detailed in the Wildland Urban Interface Plan. This professional will submit a certificate of compliance every year by the end of May to alleviate the burden to the Livermore-Pleasanton Fire Department of inspection. Compliance with vegetation management requirements will need to be done yearly in advance of inspection.

3. Schedule of Actions

a. During Construction

- Hydrants will be in place before framing begins.

- Initial fuel management will be completed before construction begins. This includes tree removal and tree pruning, and grass cutting if construction takes places between June 1 and Nov. 1.

- A construction fire-prevention plan must be approved by the LPFD Fire Marshal before building permits are issued. This will include precautions to be taken during high fire danger, tools on hand, available communications,

water supply on hand, and other actions to be taken to reduce the risk of ignition and immediate control of an incipient fire.

- Livermore-Pleasanton Fire Department will inspect roadways, hydrants and fuel management before framing begins.

- The Fire Chief and the City Engineer shall approve the number, type, and location of all public fire hydrants and the Fire Chief and the Chief Building Official of all private fire hydrants. All curbs located with a seven-foot, six-inch radius of a public/private fire hydrant shall be painted red, unless, modified by the Fire Chief. Blue street "hydrant markers" shall be installed for all fire hydrants per City of Pleasanton Standard Specifications

- Prior to any construction framing, the lot owner/contractor shall provide adequate fire protection facilities to the construction site(s), including, but not limited to a water supply and water flow in conformance to the City's Fire Department Standards able to suppress a major fire.

- The owner/contractor shall keep the construction site free of fire hazards from the start of lumber construction until the final inspection.

- The project developer shall retain the services of a certified consulting arborist to monitor the project site and the health of the trees to be preserved during construction and grading activity. A modified form of this condition applicable to the developer of individual lots shall appear in the design guidelines.

b. Post Construction (on-going if Phased Construction)

- All required clearing and grass cutting will be completed before June 20th of each year. Mowing must begin as soon as 30% of the grass has cured.

- Grass cuttings and clippings will be removed the day they are cut. No clippings are permitted to remain in piles or scattered, unless so approved by the LPFD Fire Marshal.

- All brush piles and tree clippings are to be removed within one week of cutting. No brush or clippings are permitted to remain in piles, unless so approved by the LPFD Fire Marshal.

- Annual fuel management measures include:
    - removal of all combustible vegetation along roadways, driveways, and access roads
    - maintenance of the emergency vehicle access easements
    - maintenance of the defensible space around structures according to stated standards for the Non-combustible Zone, Defensible Space,

Roadside Vegetation Management Zone, and Fuel Modification Zone.

In order to assist implementation of fuel management each year, the furthest boundary of the Fuel Modification Zone will be indicated with a permanent, yet unobtrusive, post. These delineations will be installed prior to completion of construction.

i. Annual Vegetation Management

All required clearing and grass cutting will be completed before June 1 of each year. Mowing needs to begin as soon as 30 percent of the grass has cured. Grass may need to re-mowed if late rains cause additional grass to grow.

Grass cuttings and clippings are to be removed the day they are cut. No clippings are permitted to remain in piles or scattered, unless so approved by the Livermore-Pleasanton Fire Department Fire Marshal.

All brush piles and tree clippings are to be removed within one week of cutting unless so approved by the Livermore-Pleasanton Fire Department Fire Marshal.

Annual fuel management (to be completed by June 1) encompasses:

- Removal of all combustible vegetation along roadways, access roads and trails per stated standards
- Maintenance of emergency access easement
- Maintenance of defensible space around structures per stated standards
- Inspection for compliance by third party
- Mow fire buffer to 4 inch height - by June 1; mowing date may be extended upon request to and approval by LPFD. *Grass may need to be re-mowed in July, August, September, and October*

ii. Other Frequency of Management

1. Prune remaining trees initially, then every 10 years
2. Prune young oak trees of lower branches every 3 yrs
3. Thin shrubs into groupings every 5 years where masses are larger than acceptable
4. Maintain an absence of shrubs for a distance of 100 ft from structures

in grasslands, at least every 5 years
under oak grove, at least every 10 years

4. Process for Plan Revision

While this plan presents recommendations that cover future actions, the Livermore Pleasanton Fire Department will have authority to periodically review the conditions addressing structures, plants and landscaping to provide input and direction. Potential issues that should be addressed during this review include:

- Lot line adjustments that may change the distances and areas for which the developer or homeowner association is responsible.

- Easement encroachments, such as shrub plantings or fence installation into the access easements that are on private property.
- Changed fuel hazard conditions including: height of tree branches, size, density or species of vegetation.
- Relationship of fuel load and erosion control or slope stability conditions.

A five-year interval of review is recommended, with the interval starting at the time of first construction. For example, if the development/ expansion of shrub cover warrants additional action, this process provides for revisions of required maintenance options. Input of the Fire Department would be based on site visits, results and observations from the annual inspections conducted by this department and experiences from recent wildfires or changes in ordinances or regulations.

The leadership of homeowner association will submit this plan, along with suggested revisions to the Livermore Pleasanton Fire Department for their input. The fire department input will be incorporated and the plan revised. The revised plan would be implemented the following year.

If any requirements of this Wildland Urban Interface Plan are at variance now or in the future with any conditions or requirements of the Pleasanton Municipal Code, the municipal code shall control.

APPENDIX

A. METHODS FOR FUEL MANAGEMENT - OPTIONS

A variety of techniques are available to ease the annual burden of vegetation management for creation and maintenance of the open space parcels A and B. A variety of appropriate techniques are described below.

1. Hand Labor - Pruning

Pruning lower trees branches is usually done with a hand-held pole saw (with or without a motorized chain saw attached). Lower branches on shorter trees can be pruned with loppers. To promote stronger trunks, a six-inch stub from the branch should be left. The "rules" for pruning to comply with defensible space standards are shown on Figure 2.

2. Hand Labor - Weed Whipping

This treatment is generally limited to small material such as grass or short herbs. Weed whipping may be accomplished any time of the year, and regardless of whether the material has cured. Most large woody stems are not cut by the treatment, however seedlings (such as oak seedlings, or newly planted material) can be severely damaged. Weed whipping using a string cutter provides a great deal of control over which areas are cut, however the height to which plants are cut may be difficult to control if the operator is not experienced. Mowing with a string cutter is an effective way to reduce fire hazard in grassy areas, but has mixed effectiveness in controlling weeds, depending on species, timing of treatment, operators, and height of mowing. Weed whipping is usually employed in areas that has a high density of landscape plants intermingled with grass, or is in a location too steep for mechanical equipment. Because of its high cost (relative to other treatments), weed whipping is normally done for small areas (under 2 acres in size) only.

3. Herbicide Application

Herbicide use is typically aimed at invasive alien pest plants, and is considered only when in concert with other types of fuel reduction treatments. Generally herbicide controls sprouts of plants after being cut, and kills herbaceous plants such as roadside grass and weeds. Herbicides do not in themselves remove any vegetation which might be considered a fire hazard. Herbicides are applied to a cut stump, to a tree's cambium, or as a foliar application to plants such as French broom. Application methods are generally by hand, and include using a sponge, spray bottle, or pressurized container and wand. Roadside application of herbicides may employ a boom behind a vehicle. The types of herbicides used generally have low to moderate toxicity, as indicated by the words "caution" or "warning" on the label. With few exceptions, use of an herbicide with a rating higher than "warning" is unjustified. Herbicide application is highly regulated under OSHA. It is imperative to wear proper safety gear and to follow label directions. The effectiveness in control of weeds varies with application method and applicator experience. Selectivity is high with manual application, however drift can occur on windy days. Application with a vehicle limits the selectivity and would affect all plants within the width of the boom.

The timing of herbicide application varies with the chemical used. Usually weed control is done during the time of active growth, which coincides with active growth of native species as well. Stump control may need to be applied within minutes after the tree is cut, or can be applied within one week, depending on the chemical used. Generally better control is achieved when spraying for sprout control is done during the spring.

Transline, an herbicide specific to thistles, is effective on control of yellow star thistle and Italian thistle. This herbicide can be applied by hand, or with a tractor-mounted sprayer.

4. Grazing

Grazing with goats or sheep is sometimes used to reduce fire hazard and to remove weeds since they eat the material. Goats are best used in areas that do not have a large number of plants which should be retained since all plants (other than large trees) will be damaged or killed unless they are protected. Goat grazing often is used to reduce shrubby cover. Sheep are best used when grass is the primary vegetation. Grazing under contract with a large herd of goats and/or sheep is moderately expensive, however, they can graze approximately one acre per day. Goats and sheep can be placed on any steepness slope, and can graze generally any shape or size of parcel, but care should be used in steep slopes because they can denude the site and cause significant erosion.

5. Heavy Machinery - Attachments to Tractors (Brush Hogs, Flail, Mowers, Tiger Mowers)

Heavy machinery is usually used to mow grass in flat areas where terrain and the presence of numerous trees do not prohibit travel. This type of machinery should not be used on slopes over 30% because of concerns for worker safety as well as erosion control and slope stability issues. Roadside mowing is a prime example of the use of heavy machinery with attachments. A variety of attachments serve numerous purposes. For example, a brush hog attachment cuts and breaks brush plants off and produces a mulch of the brush debris. Mowers which cut or flail grass and small woody plants are also attached to tractors. Attachments (such as mowers) with articulated arms which reach as far as 20 ft away from the tractor reduce the area over which the tracks must travel, and offer more maneuverability. These articulated arms also cut and/or break off material. Heavy machinery is a moderately fast, and a relatively inexpensive treatment. There is little control over which plants are cut, but machines can travel around isolated areas of concern.

Discing the site is not recommended because of excessive erosion that results. In addition, areas disced are typically more vulnerable to invasion of alien pest plants. Heavy machinery should not be used when the ground is soft in order to prevent ruts and bared soil. This technique can be used at almost any other time of year, but is faster when done in the summer or fall when brush is brittle and grass has cured. It must not be used during times of high fire danger because the machines can start fires. The under-carriage

of the machine and attachments should be washed off after use and before use in areas of weed or fungal infestations as they pay transport both alien exotic seeds as well as deadly *phytophthora* spores.

APPENDIX F

LIST OF PLEASANTON RESIDENTIAL PROJECTS AND LOCATION MAP

THE CITY OF PLEASANTON

Pleasanton Planning Division
200 Old Bernal Avenue / P.O. Box 520 Pleasanton, CA 94566
Phone: (925) 931-5600 Fax: (925) 931-5483

RESIDENTIAL PROJECTS
as of January 1, 2014

Approved Projects

Map ID	Development Name/Dev Address Developer/Telephone	Project #	Ordinance #	Tract/Parcel Map Number/APN	Acreage	Unit Type	Total Units	Pre-Existing Units	Bldg. Permits Issued	Bldg. Permits Finaled	Units/ Acre	Project Progress DP	TM	GM	FM	U/C	Staff Planner
2	Barbara Young / 11249 Dublin Canyon Rd	PUD-44	0.1939	941 170000502	2.71	MSF	2	1	0	0	1.10	06	na	F			Jenny Soo (925) 931 -5615
3	Kolb Ranch Estates/orig. 11393 Dublin Canyon Rd	PUD-99-03	0.1805	TR 6951	55.4	LSF	12	2	8	5	0.20	00	*	F	*	*	Staff (925) 437-4009
4	Moller Ranch / Moller Ranch Dr. @ Foothill Rd.	PUD-90-19	0.1503	TR 6618	198	14 LSF, 23 MSF, 62 SSF	99	0	97	97	0.50	91	*	F	*	*	Staff (925) 437-4009
5	Sunrise Senior Living / 5700 Pleasanton Hill	PUD-85-09	0.1214	941-1201-015-02	2.54	Asst. Liv.	132	0	0	0	51.97	85	na	F	na		Staff (925) 437-4009
6	Fuller/Frades/ 4120 Foothill Rd	PUD-3	0.1830	PM 7620	77.5	LSF	3	1	1	1	0.09	01	*	F	*	*	Steve Otto (925) 931-5608
7	Equus Heights/Equus Court Dong Yu	PUD-98-1	0.1747	TR 6275	7.68	LSF	6	1	0	0	0.78	98	*	F	*		Marion Pavan (925) 931-5610
8	Raney / 4693 & 4715 Augustine St.	PUD-72	0.1985	TR 7952 094 015500600 094 015500700	0.5	SSF	6	3	0	0	12.00	08	*	F			Staff (925) 437-4009
9	Golden Eagle Farm / North of Castlewood (Custom & Large Lot)	PUD-85-15	0.1236	TR 5945, 6033	262	LSF	86	0	85	85	0.30	85	*	F	*	*	Staff (925) 437-4009
10	Ponderosa Homes 4202 Stanley Boulevard	PUD-97	O.2077	P13-2077 &TM 8159 946 169100101	2.1	SSF	13	1	0	0	0.16	13	*	F	*		Natalie Amos (925) 931-5613
11	Oak Tree Farm --Phase 3 Currin 925-462-3740	PUD-17/ PMS-29	0.1892	PM 8293	13.5	LSF	3	1	0	0	1.00	03	*	F	*		Jenny Soo (925) 931-5615
12	Oak Tree Acres/ Foothill @ Verona	PUD-92-05	0.1566	TR 5708	9.84	LSF	9	0	6	6	0.90	92	*	F	*	*	Staff (925) 437-4009
13	Serenity Terrace / 1073 Happy Valley Rd	PUD-99-07	0.1795	7162	46.3	LSF	12	0	8	8	1.30	99	*	F	*	*	Jenny Soo 925-5615
14	Mariposa Ranch/Callippe Preserve	PUD-98-16	.1795 .1915 (design guidelines)	TR 7372	345.8	LSF	37	3	23	20	0.10	99	*	F	*	*	Marion Pavan (925) 931-5610
15	Carriage Gardens / Amber Ln, Brianne Ct	RZ-79-12	0.902	TR 4372	35.9	LSF	49	0	48	48	1.40	79	*	M	*	*	Marion Pavan (925) 931-5610
16	Thompson / 6140 Kavala Ct (orig 6240 Sunol Blvd)	PUD-90-21	0.1510	949 000200102	0.98	MSF	3	1	0	0	3.10	91		F			Staff (925) 437-4009
17	Pleasanton Gateway Commons / 1600 Valley Ave.	PUD-96	0.2078 & 0.2079	TR 8147	26.7	APTS & SSF	307	0	0	0	11.50	13	*	M	*		Marion Pavan (925) 931-5610
18	Bach/Lamb / 446 Sycamore Road	PUD-42	0.1914	PM-8735	1.84	LSF	4	1	1	2	2.17	05	*	F	*	*	Marion Pavan (925) 931-5610
24	Hafker / 530 Sycamore Road	PUD-96-04-1M	0.1909	PM 9559	1.29	LSF	3	1	1	1	2.33	4	*	F	*	*	Staff (925) 437-4009
25	Heritage Oaks Estates / 306 Neal Street Connolly	PUD-85-21	0.1243	TR 5699 & PM 5835	2.4	MSF	9	0	8	8	3.80	86	*	F	*		Jenny Soo (925) 931-5615
27	Beratlis Place / 10 Beratlis Place	PUD-91-14	0.1547	TR 5904	8.82	LSF	15	1	2	2	1.90	92	*	F	*	*	Marion Pavan (925) 931-5610
28	Hatsushi/ 2756, 2770 & 2798 Vineyard Ave Amy Hatsushi 925-525-4710	PUD-99-14	0.1936	TR 7890	15	LSF	14	1	1	0	1.07	06	*	F	*	*	Marion Pavan (925) 931-5610
29	Clara Lane Michael Aminian 408-691-0442	PUD-56	0.1947	PM 9455	2.45	LSF	3	1	0	0	0.82	07	na	F			Marion Pavan (925) 931-5610
30	Brians/Miller / (orig. 2562 Vineyard)	PUD-34	0.1907	PM 8214	1.9	LSF	2	0	1	1	1.05	04	*	F	*	*	Marion Pavan (925) 931-5610
31	McCurdy/Yolanda Ct (formerly 2503 Vineyard)	PUD-01-1M	0.1877	TR 7499 / PM 8153	4.2	LSF	5	|1 demo|	2	2	0.70	03	*	F	*	*	Marion Pavan (925) 931-5610

32	Apperson Ridge/Silver Oaks Estates (Berlogar) 2200 Vineyard Ave Frank Berlogar (925) 484-8200	PUD-5	0.1832	TR 7399	8.02	LSF	9	0	7	6	0.30		01	*	F	*	*	Jenny Soo (925) 931-5615
34	Apperson Ridge (Chrisman) 1944 Vineyard Ave Northstar Construction (925) 766-1099			TR 7660 946 135001508	20	LSF	10	0	0	0	0.30		01	*	F	*		Jennifer Wallis (925) 931-5607
35	Sarich / 5 Tuscany Pl (orig. 1630 Vineyard Ave)	PUD-32	0.1974	PM 9776 946 135001504	20	LSF	2	1	1	0	0.10		08	na	F	*	*	Steve Otto (925) 931-5608
36	Avignon (Lin) / 1689 Vineyard Ave Toll Brothers	PUD-6 PUD-06-06m	0.1834 0.8112	TR 8112 946 135001310	63.14	LSF	19	0	13	12	0.30		01	*	F		*	Marion Pavan (925) 931-5610
38	Ruby Hill Signature Properties 925-463-1122	PUD-93-2-1M	0.1551	TR 6554, 6553, 6452, 6647, 6744, 6743, 6539, 6555, 6769, 6841, 6995, 6842, 6804, 6805, 6896, 7158, 7156, 6843, 7014	1303	mixed	850	0	845	843	0.66		91	*	F	*	*	Marion Pavan (925) 931-5610
40	Selway/ Cameron Ave Development	PUD-50-01M	0.2025	TR 7721 946 4574006 / 946 4574007	19.47	LSF	31	2	12	2	1.59		11	*	F	*	*	Marion Pavan (925) 931-5610
41	Lauer/ 2221 Martin Dr.	PUD-97-16	0.1735	PM 7263	5.1	LSF	6	1	1	1	1.20		98	*	F		*	Marion Pavan (925) 931-5610
42	Continuing Life Communities at Staples Ranch 650-234-1319	PUD-68	0.2007	TR 8020	45	630 Sr Apt/ *107 Asst Liv	747	0	532 /*108	75	15.30		12	*	F	*	*	Shweta Bonn (925) 931-5611
43	Austin / 3459 Old Foothill Rd Charles and Scott Austin	PUD-58	0.1942	TR 7813	30.41	LSF	8	1	0	0	1.00		06	*	F			Marion Pavan (925) 931-5610
44	Felton / 471 St. Mary Street	PMS-57	na	PM 8964	0.64	SSF	2	1	0	0	0.32		06	na	F	*		Steve Otto (925) 931-5608
45	Oak Ridge Estates (formerly 1680 Vineyard Ave) Greg Reznick / Threehand LP	PUD-54	0.1938	TR 7815	20.19	LSF	7	| 1 demo |	0	0	0.35		06	*	F	*		Steve Otto (925) 931-5608
46	Angela Rowhouses - 225 W. Angela Mike Knuppe	PUD-55	0.1963	TR 7940	0.24	SSF	5	1 and | 2 demo|	5	0	0.05		07	*	F	*	*	Natalie Amos (925) 931-5613
47	Yee / 4100 Foothill Rd	PUD-87-19-3M	0.2003	941 2100006	29.8	LSF	4	0	0	0	0.13		10	*	F			Marion Pavan (925) 931-5610
48	Scherbarth (orig. Pietronave) / 2500 Vineyard Ave	PUD-60	0.1949	946 460600200	2.62	LSF	3	|1 demo|	0	0	0.87		07	*	F			Staff (925) 437-4009
49	Windstar Communities (BART Property) / 6110 Stoneridge Mall Road	PUD-62	0.1983	941 120107107	6.9	Apts	350	0	0	0	50.72		08	na	M			Steve Otto (925) 931-5608
53	4238 First Street LLC Mike Carey	PUD-64	0.1971	094 0095027	0.31	SSF	5	1	0	0	16.13		08	*	F			Natalie Amos (925) 931-5613
55	Dutra / 1053 Happy Valley Road	PUD-77	0.1990	949 001900200	11.65	LSF	5	|1 demo|	0	0	0.43		09		F			Jenny Soo (925) 931-5615
56	Mederios Gardens / 3835 Vineyard Aven. Michael Aminian	PUD-71	0.1975	946 169907800	0.88	TH	10	|1 demo|	0	0	11.36		08		F			Jenny Soo (925) 931-5615
59	The Village at Ironwood Ponderosa Homes 925-460-8900	PUD-74	0.1987	946 459400600	23.1	3 LSF, 81 SSF & 26 MSF (all senior)	110	0	99	60	4.80		09	*	M	*	*	Steve Otto (925) 931-5608
61	Jennaro Property (3727 Mohr Ave)	PUD-83-12	0.1128	946 457401102	4.96	LSF	6	1	1	1	1.21		84		F			Staff (925) 437-4009
65	Grey Eagle (1 vacant lot)	PUD-82-10	0.1077	TR 5188	47	LSF	28	0	27	27	0.58		83	*	F	*	*	Staff (925) 437-4009
66	Hempy Bethal Lane	PUD-88-16	0.1831	PM 6261	4	LSF	4	1	2	2	1		89	*	F	*	*	Staff (925) 437-4009
69	Donato Builders Inc. 4171 / 4189 Stanely Blvd. David DiDonato (925) 245 0694	PUD-82	0.2021	946 168911, 16- 19	1.17	SSF	13	|1 demo|	0	0	11.1		11	*	F			Marion Pavan (925) 931-5610
71	BRE Properties (Owens Dr & Willow Rd) / Site 1	PUD-81-30-86D	0.2036	941 277801100	8.1	APTS	251	0	0	0	30.00		12	na	*	na		Natalie Amos (925) 931-5613
72	BRE Properties/WP Carey (Gibralter Dr & Hacienda Dr) / Site 2	PUD-85-08-12D	0.2035	941 277801300	8.4	APTS	255	0	0	0	30.00		12	na	*	na		Natalie Amos (925) 931-5613
74	Balch, 6010 Alisal Road	PUD-88 (P12-0577 Annex)	0.2057	949 001500102	10.14	LSF	2	1	2	0	5.07		12	na	F	*		Jenny Soo (925) 931-5615

75	Nearon Site- Anton Hacienda Appartments/ St. Anton Partners 5729 West Las Positas Blvd.	PUD-95	0.2071	941 276401500	5.6	APTS	168	0	168		30.00		13	n/a	M	n/a			Janice Stern (925) 931-5606
76	Danville School Street Investors, LLC Sycamore Road (vacant lot)	PUD-93	0.2058	948 001700707	2.23	LSF	4	0	0	0	1.67		13	n/a	F				Jenny Soo (925) 931-5615
77	Roselyn Estates II	PUD-94	0.2067	TR 8139 946 461001400	3.71	LSF	7	0	0	0	1.89		13	*	F				Jenny Soo (925) 931-5615
78	Auf der Maur/Richenbach 3150 Bernal Ave	PUD-87	0.2075	946 454204503	11.5	APTS	345	0	0	0	30.00		13	n/a	*				Shweta Bonn (925) 931-5611
79	The Residences at CA Center 4400-4460 Rosewood Drive Mark English 415-262-2089	PUD-85-08-1D-4M	0.2075	941 278001600 941 278001700 941 278001901	8.4	APTS	305	0			36.3		13	na	M	na			Steve Otto (925) 931-5608

Proposed Projects (not yet approved)

1	5850 W. Las Positas Blvd (Summerhill)	PUD-81-30-88D Formally PUD-103		941 276200600	5.9	APTS	177	0			30.00								Jenny Soo (925) 931-5615
20	Lund Ranch II Greenbriar Homes 925-469-2670 Measures PP/QQ	PUD-25		948 001500104	193.86	LSF, SSF, Duets	50	1			0.26								Marion Pavan (925) 931-5610
52	418 Rose Ave. LLC	PUD-63		094 0153001	0.26	TH	5	0			19.23								Natalie Amos (925) 931-5613
54	Altieri - 1851 Rose Avenue Yvonee Hombeck	PUD-99 Formally PUD-66		946 347900100	9.02	LSF	19	|1 demo|			2.11								Jenny Soo (925) 931-5615
58	Wentworth (Heartwood Communities) / 1157 Happy Valley Road	PUD-75 / PSPA-3/ PGPA-4		949 001900300	6.13	SSF	6	1			0.43								Natalie Amos (925) 931-5613
60	Bringhurst / 990 Sycamore Rd	PUD-53 Formally PUD-97-21		948 001600215	3.33	LSF	5	1			1.50								Jenny Soo (925) 931-5616
68	88 Silver Oaks Ct	PUD-84		946 6135002503	37.4	LSF	2	0			0.05								Jenny Soo (925) 931-5615

Recently Completed Projects - There were no "Recently Completed Projects" for the 2013 calendar year

Project Progress: The following steps are generally required before any new residential project can be built in Pleasanton:

DP Development Plan Approval. Applications for new residential development first receive some type of City development plan approval, usually a "planned unit development" PUD-application.

TM Tentative Map Approval. Before a developer can construct and sell individual homes within a subdivision that will have five or more parcels/lots, the orginal parcel of land where the development will be built must be subdivided into individual, legal lots.

GM Growth Management Program Approval. Residential projects must obtain growth management approval. A "Major Project" receives an allocation for a specific year(s), while a "First-Come, First-Serve Project" obtains building permits on a "first-come, first-serve" basis.

FM Final Map Recordation. Following tentative subdivision map approval (TM), the subdivision of land must be made legal through recordation at the Alameda County Recorder. This administrative process is coordinated through the Engineering Division.

U/C Under Construction. After final subdivision approval, if applicable, the developer may obtain building permits to begin construction. The building permit process is coordinated through the City's Building and Safety Division.

Lengend:

PUD Planned Unit Development
PM Parcel Map
TM Tract/Tentative Map
TH Townhomes
SH Senior Housing/Apartments
AL Assisted living & Skilled Nursing

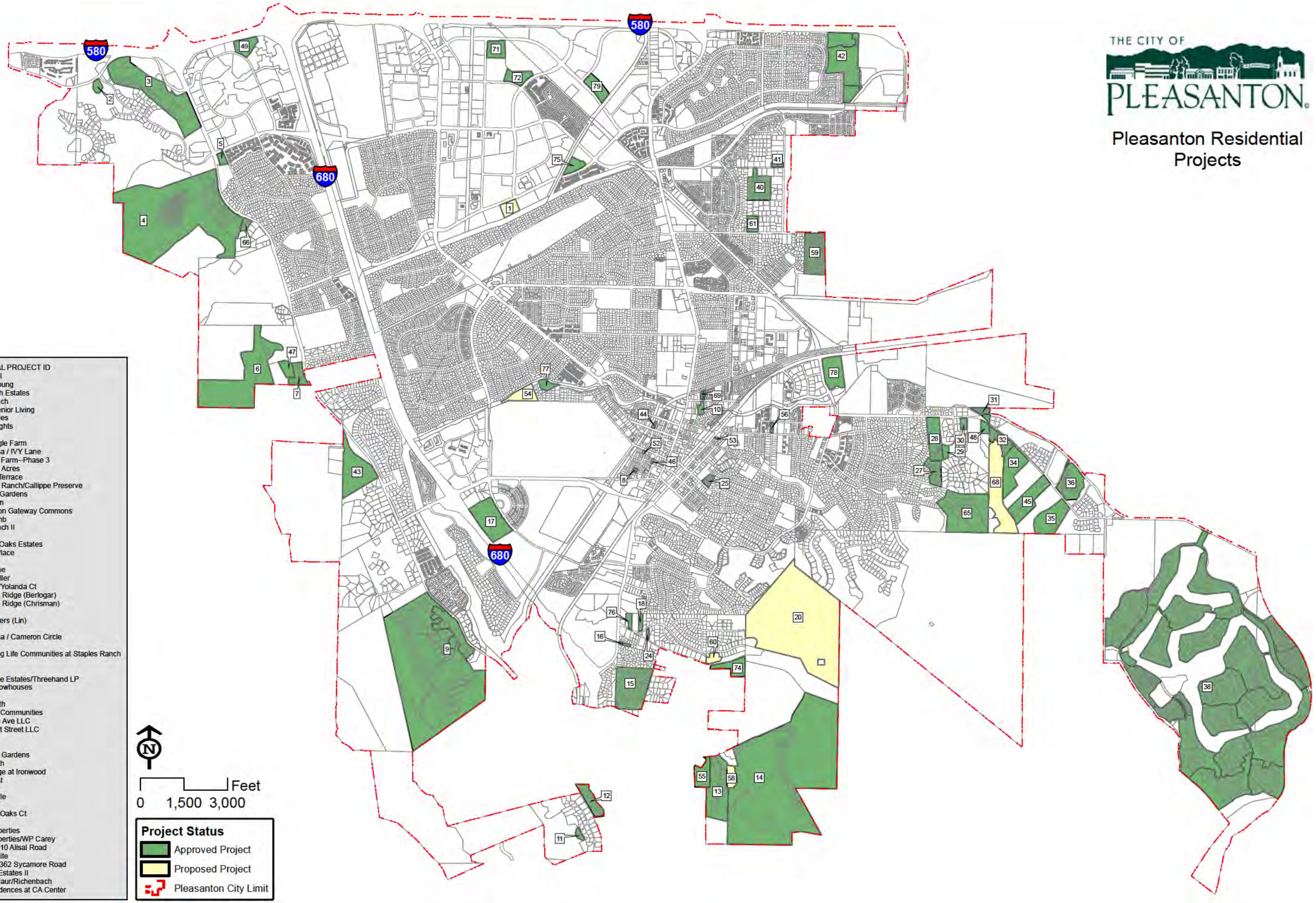
LSF Large-lot single-family: > 10,000 sqft
MSF Medium-lot single-family: 6,500 - 9,999 sqft
SSF Small-lot single-family: < 6,500 sqft
DTS Duets, attached single-family
APT Rental apartments
CON Attached, individual onwership

Growth Management Allocations

M Major Project
F First-Come, First-Serve Project

THE CITY OF PLEASANTON

Pleasanton Residential Projects



RESIDENTIAL PROJECT ID
1. Summerhill
2. Barbara Young
3. Kolb Ranch Estates
4. Moller Ranch
5. Sunrise Senior Living
6. Fuller/Frades
7. Equus Heights
8. Raney
9.Golden Eagle Farm
10. Ponderosa / IVY Lane
11. Oak Tree Farm--Phase 3
12. Oak Tree Acres
13. Serenity Terrace
14. Mariposa Ranch/Callippe Preserve
15. Carriage Gardens
16. Thompson
17. Pleasanton Gateway Commons
18. Bach/Lamb
20. Lund Ranch II
24. Hafker
25. Heritage Oaks Estates
27. Beratlis Place
28. Hatsushi
29. Clara Lane
30. Brians/Miller
31. McCurdy/Yolanda Ct
32. Apperson Ridge (Berlogar)
34. Apperson Ridge (Chrisman)
35. Sarich
36. Toll Brothers (Lin)
38. Ruby Hill
40. Ponderosa / Cameron Circle
41. Lauer
42. Continuing Life Communities at Staples Ranch
43. Austin
44. Felton
45. Oak Ridge Estates/Threehand LP
46. Angela Rowhouses
47. Yee
48. Scherbarth
49. Windstar Communities
52. 418 Rose Ave LLC
53. 4283 First Street LLC
54. Altieri
55. Dutra
56. Mederios Gardens
58. Wentworth
59. The Village at Ironwood
60. Bringhurst
61. Jennaro
65. Grey Eagle
66. Hempy
68. 88 Silver Oaks Ct
69. Donato
71. BRE Properties
72. BRE Properties/WP Carey
74. Balch, 6010 Alisal Road
75. Nearon Site
76. PUD-93, 362 Sycamore Road
77. Roselyn Estates II
78. Auf der Maur/Richenbach
79. The Residences at CA Center

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APPENDIX G

MEASURE PP FULL TEXT, BALLOT ARGUMENTS, AND CITY ATTORNEY IMPARTIAL ANALYSIS

MEASURE QQ FULL TEXT

FULL TEXT OF MEASURE PP

Save Pleasanton's Hills & Housing Cap

Purpose

The purpose of this Initiative is to protect our city from uncontrolled growth and the impact it has on ridgelines and hillsides, traffic, schools, water supply, and our overall quality of life.

I. Pleasanton General Plan Amendments

Policy 12 Program 12.3 on Page 11-17 of the City of Pleasanton August 6, 1996 General Plan is added as shown:

Policy 12.3: Ridgelines and hillsides shall be protected. Housing units and structures shall not be placed on slopes of 25 percent or greater, or within 100 vertical feet of a ridgeline. No grading to construct residential or commercial structures shall occur on hillside slopes 25% or greater, or within 100 vertical feet of a ridgeline. Exempt from this policy are housing developments of 10 or fewer housing units on a single property that was, as of January 1, 2007, "legal parcel" pursuant to the California Subdivision Map law. Splitting, dividing, or sub-dividing a "legal parcel" of January 1, 2007 to approve more than 10 housing units is not allowed.

Policy 15 on Page 11-19 of the City of Pleasanton August 6, 1996 General Plan is added as shown:

Policy 15.3: A housing unit is defined to include any residence that includes a kitchen (sink, cooking device, and refrigerator) and a bathroom (toilet, tub or shower). The City Council shall uphold the housing cap and shall not grant waivers that exclude housing units consistent with this definition.

II. If any portions of this initiative are declared invalid by a court, the remaining portions are to be considered valid.

III. The provisions of this initiative may be amended or repealed only by the voters of the City of Pleasanton at a City general election and overrides any existing General Plan.

ARGUMENT IN FAVOR OF MEASURE PP

Yes on PP (Protect Pleasanton):

- Immediately protects our scenic ridgelines, vital wildlife habitats and oak forests.
- Closes loopholes in our existing voter-approved housing cap.
- Placed on the ballot by over 5,000 citizens.

No on QQ:

- Is a "plan to create a plan" that may NEVER protect ridgelines.
- Continues the loophole that gives our City Council the flexibility to count or not count units toward the voter-approved Housing Cap.
- Placed on the ballot at the request of ridgeline developers and written with a provision to kill Measure PP even if it passes with a majority of votes.

This is black and white:

- **Measure PP** Protects Pleasanton ridgelines NOW.
- **Measure QQ** does not!

Over 5000 concerned Pleasanton residents signed a petition to put this initiative on the ballot because they are concerned with future development that would destroy Pleasanton's scenic ridges forever.

Our City Council majority recently approved two hilltop developments. They approved massive grading of hillsides, a mile long road spanning the top of many of our Southeast Hills, and removal of extensive wildlife and plant habitat including hundreds and hundreds of oak trees. More than 40 feet will be cut from the tops of our beautiful hills to make pads for mega-mansions. THIS MUST BE STOPPED!

Developers are preparing to submit plans for even more environmental destruction of our ridgelands. **This is our last chance to Protect Pleasanton's ridgelines.**

Vote **Yes on PP** (**P**rotect **P**leasanton) and continue to enjoy our quaint city while preserving the majestic nature of our surrounding landscape and ridgelines.

This is black and white: Vote **Yes on PP** (Protect Pleasanton) **and No on QQ.**

For more information:

www.SavePleasantonsHills.com

s/Kay Ayala
City Council Member (1996-2004)

s/Steve Brozosky
City Council Member (2002-2006),
Pleasanton School Board Trustee

s/Karla Brown-Belcher
Co-author Measure PP

s/Anne Fox
Planning Commissioner

s/Cindy McGovern
Pleasanton City Council Member

Rebuttal Arguments in Support or Opposition of the proposed laws are the opinions of the authors.

REBUTTAL TO ARGUMENT IN FAVOR OF MEASURE PP

Vote NO on Measure PP

Measure PP promises ridgeline protection but cannot deliver.

- It encourages development of large ultra private estates due to the exemption for ten homes or less.
- It prevents private property owners from dedicating land for parks and trails.
- It does not immediately protect the ridgelines because they are private property.
- It has no provision for environmental review.

The signatures collected reflect the desire of residents of Pleasanton for hillside protection. The current Council shares this vision and included hillside protection as a priority for this term. The Council is committed to acquiring publicly accessible open space to continue our regional trail network.

Measure PP claims to protect Pleasanton ridgelines but actually **jeopardizes** the protection by allowing the exemption for ten homes or less. It forces us into long, complex and costly legal battles.

The accusations made by the authors of Measure PP are untrue. This is a matter of public record.

Every Pleasanton resident values the beauty of our city.

The Council is obligated to protect the taxpayers of this community from costly litigation. The Council is committed to an open public process that includes the **entire** community, even the authors of Measure PP. We want to ensure that the few remaining opportunities to acquire **publicly accessible** open space and **ridgeline protection** is **achieved**.

Measure QQ was placed on the ballot to protect the city from costly litigation and to help clarify the issues. We trust the voters will agree.

There is better way. Vote No on Measure PP

s/Cheryl Cook-Kallio
Pleasanton City Council Member

s/Mary Jane Casper
Vice Chair Human Services Commission

s/James A. Dibiase
Vice-Chair, Park & Recreation Commission

s/Bonnie Shamblin
Downtown Business Owner
4th Generation Pleasanton Native

s/Jocelyn S. Combs
Former East Bay Regional Park District Director

ARGUMENT AGAINST MEASURE PP

There is a **better way** to protect our hills and beautiful views.

In a law written to protect our hills, the language must be clear, leaving no room for exceptions or interpretation. That did not happen with the poorly drafted Measure PP and it deserves a **NO** vote.

Measure PP has unitended consequences that will cost Pleasanton taxpayers both time and money. Measure PP will

- Allow Mansions on our ridgelines under its exemption for parcels of ten units or less
- Stop the promised Happy Valley by-pass road
- Eliminate publicly accessible open space
- Prevent additional senior housing

This poorly written Measure also:

- Violates state law by prohibiting second units for in-laws or aging parents
- Violates the rights of property owners within the urban growth boundary
- Lacks any environmental review or public hearings
- Counts extended stay hotels rooms toward the housing cap

This poorly written measure fails to define key words and phrases. The absence of clarification of these terms requires courts to interpret the vague language. If passed Measure PP can only be corrected by another intitiative or years of litigation at the City's expense.

When protecting the hills, language must be clear leaving no room for exception or interpretation.

The Council vision for the southeast hills is consistent with our General Plan, which includes open space and a system of publicly accessible trails.

Under the Council's alternative the City will undertake a process of staff research, public hearings and comment, review by the planning commission, and only then, action by the Council. The **entire community** will participate.

There is a better choice, an ordinance supported by local environmental groups, trail advocates and your City Council, Measure QQ.

Protecting the hills is important. Lets do it RIGHT. **VOTE NO on Measure PP.**

s/Cheryl Cook-Kallio
City Council Member

s/Arne Olson
Planning Commissioner

s/Becky Dennis
Chair, Kottinger Place Redevelopment Task Force

s/Dolores Bengston
Open Space and Trails Advocate

s/Patricia Belding
Chairperson, Citizens for A Caring Community

Rebuttal Arguments in Support or Opposition of the proposed laws are the opinions of the authors.

REBUTTAL TO ARGUMENT AGAINST MEASURE PP

The arguments against Measure PP are untrue. Don't be misled. **Please read Measure PP.** You'll find Measure PP clearly is the measure that protects our precious ridgelines NOW.

Measure **PP** (Protect Pleasanton):

- Protects all ridges. Parcels of ten units or less are already protected by city policy.
- Protects property rights under existing General Plan.
- Does NOT eliminate public open space.
- Does NOT prevent additional senior housing.
- Does NOT count second units, per state law, toward Housing Cap.

Pro-development advocates and individuals against the voter approved Housing Cap want Measure PP to fail. They simply want more housing in Pleasanton.

This council majority approved mega-mansion housing developments on ridgelines that move more than **70,000 truckloads of dirt** to create roads and housing pads. Now they are saying they want to protect ridges. Their actions are in direct conflict with their words. **Actions speak louder than words**.

This is black and white:

- **Measure PP Protects Pleasanton Ridgelines NOW.**
- **Measure QQ does not!**

Measure PP, signed by over 5,000 Pleasanton residents, was written by experienced city planners, slow-growth proponents, open space advocates, trail advocates, and residents who want to preserve our ridgeines and voter-approved Housing Cap.

By voting **Yes on PP** (Protect Pleasanton) and **No on QQ**, your ACTION will ensure the quality of life we now enjoy.

Vote **Yes on PP** (Protect Pleasanton) and **No on QQ**,

www.SavePleasantonsHills.com

s/Matt Sullivan
Pleasanton City Council

s/Brian Arkin
Planning Commission (1999-2006) & Trails Advocate

s/Ben Tarver
Former Mayor of Pleasanton/Friends of Pleasanton Steering Committee

s/Karen Ellgas
Park & Rec Commissioner

s/Meribeth Detweiler
Human Services Commissioner

SAVE PLEASANTON'S HILLS & HOUSING CAP INITIATIVE MEASURE PP

PP **MEASURE PP:** Shall the Save Pleasanton's Hills and Housing Cap Citizens' Initiative be adopted?	**YES**
	NO

CITY ATTORNEY IMPARTIAL ANALYSIS OF MEASURE PP

Save Pleasanton's Hills & Housing Cap Initiative

A general plan is a set of long-range goals, policies and programs guiding land use decisions. City decisions regarding development of property within Pleasanton are currently governed by the 1996 General Plan.

This Measure would add a new policy to the General Plan to prohibit placing housing units and structures, and prohibit grading to construct residential or commercial structures, on properties with slopes greater than 25% or within 100 vertical feet of a ridgeline. Housing developments of 10 or fewer units on a legal parcel are exempt from this policy.

The General Plan currently provides that the City is to maintain a "Housing Cap" of 29,000 housing units. The General Plan does not provide a definition of "housing unit" but the City's past practice has been to count towards the Housing Cap each single family residence, condominium, mobile home, and apartment unit, but not to count second units or units in assisted living facilities. This Measure would add a new policy to define a housing unit to include any residence having a kitchen and a bathroom and that no waivers be granted to exclude housing units coming within the definition. (Second units, however, are excluded by State law.)

Hillside Regulations

Some clarification of terms in the Measure (e.g., "structure", "ridgeline", how to measure "slope") may be necessary in order that General Plan policies remain internally consistent and to resolve potential conflicts between other City policies and the Measure. Some sentences (e.g., "[S]ub-dividing a 'legal parcel'...to approve more than 10 housing units is not allowed.") are subject to various interpretations.

The Measure's restrictions as to hillside development may result in fewer residences being built in hillside areas. It is expected, however, these units would be built in other areas of the City, although such units would likely be smaller in size. Due to the units' smaller size, some development impact fees the City and other public agencies receive are projected to be less than if larger hillside residences were built. The City's annual net revenues would also likely be reduced.

If hillside housing is not built, but residents built elsewhere in the City, such development would likely be higher density, multiple family dwellings or smaller single family homes, which would help Pleasanton attain its share of regional housing needs for all segments of the City's population.

Definition of Housing Unit

The Measure would reduce the City's discretion to determine what is a housing unit and the Measure's definition could result in units within assisted living and similar facilities counting towards the Housing Cap, thereby reducing the opportunity for other types of housing units—single family residences, apartment units, etc.—to be built. That would also likely reduce some development impact fees the City and other public agencies receive and reduce the City's annual net revenues.

If voters approve this Measure PP and Measure QQ, but Measure QQ receives more votes, no portion of this Measure goes into effect.

If this Measure goes into effect, the policies may only be amended by Pleasanton voters.

August 8, 2008

s/MICHAEL H. ROUSH, City Attorney
City of Pleasanton

FULL TEXT OF MEASURE QQ

THE PLEASANTON RIDGELINES PROTECTION AND GROWTH CONTROL INITIATIVE

The people of the City of Pleasanton do ordain as follows:

Section 1. Declaration of Purpose.

The purpose of this Initiative is to:

A. Preserve and protect scenic hillsides and preserve views of the ridges that surround Pleasanton.

B. Achieve that preservation/protection through a collaborative and public process.

C. Reaffirm and readopt General Plan policies and programs that currently provide, with no exemptions, preservation and protection of hillsides and views of ridges.

D. Clarify how all types of housing units are counted towards the voter-approved maximum buildout of 29,000 housing units.

Section 2. Findings.

A. The hillsides and ridges that surround Pleasanton provide spectacular views and the community wants to ensure that these scenic hillsides and ridges are preserved for the protection of public health and safety, to provide for trails in such open space, for the continuation of agriculture and grazing, to protect natural resources and sensitive habitats, and to preserve wildlands.

B. The General Plan has a policy that Pleasanton residents will participate in land use planning and decision making, and in recognition of such collaborative and public process, an ordinance/design guidelines should be developed to:

a. Identify specific ridges, based on engineering considerations related to view lines, geotechnical conditions, elevations (in the Southeast Hills in particular) and other relevant data, where development should not occur.

b. Such ordinance/design guidelines must be drafted as expeditiously as possible and by no later than the end of November 2009.

c. In drafting such ordinance/design guidelines, the collaborative and public process should include Pleasanton residents, property owners potentially affected by such ordinance/design guidelines, representatives of environmental organizations, open space and trail advocates and other interested persons.

d. Such ordinance/design guidelines would be subject to public environmental review under the California Environmental Quality Act (CEQA).

C. To accomplish such preservation, the Conservation and Open Space Element of the General Plan provides in Goal 1, the following, Program 5.1: Develop a ridgeline protection ordinance and scenic hillside guidelines to improve safety and reduce the potential negative visual impacts of development in hilly areas.

D. In addition, the Land Use Element of the General Plan provides in Goal 1, the following: Policy 12: Preserve scenic hillside and ridge views of the Pleasanton, Main, and Southeast Hills ridges; and Program 12.2: Study the feasibility of preserving large open space areas in the Southeast Hills by a combination of private open space and a public park system. And the Conservation and Open Space Element states in Goal 1, the following: Policy 4: Protect all large continuous areas of Open Space, as designated on the General Plan Map, from intrusion by urban development.

E. Since the voters' adoption of the housing unit cap in 1996, the City Council has consistently determined that all single family homes, multi-family projects (including apartments and mobilehomes) have counted toward the housing cap. Similarly, the City Council has consistently not counted toward the housing cap either second units (as provided by State law) or rooms within extended stay hotels, as these uses are commercial in nature. These actions of the City Council have been consistent with the Land Use Element of the General Plan, Goal 2, Policies 14 and 15.

F. This Initiative reaffirms, readopts and clarifies existing City policies and programs and therefore no separate environmental review is required.

Section 3. General Plan Policies Regarding Preserving Pleasanton Ridges and Growth Management.

Reaffirmation and Readoption of Policies Concerning Preserving Scenic Hillsides and Ridge Views: The Pleasanton Ridgelines Protection and Growth Control Initiative hereby reaffirms and readopts Land Use Element Policy 12 and Program 12.2, Conservation and Open Space Element Policy 4, as set forth in Section 2.D of this Initiative.

Reaffirmation and adoption of Growth Management Policy Concerning Housing Units: The Pleasanton Ridgelines Protection and Growth Control Initiative hereby reaffirms the General Plan Land Use Element Policy 15 and clarifies how all types of housing units are counted against the housing cap, such that Policy 15 reads as follows: "Maintain a maximum housing buildout of 29,000 units within the Planning area. Each single family residential unit and each multi family residential unit (for example, a condominium, townhouse, each half of a duplex, a mobilehome, or an apartment unit), whether market rate or affordable, shall count towards the maximum housing buildout. Units within assisted living facilities are generally not counted toward the maximum housing buildout due to their commercial nature, but a proportion of such developments may be counted toward the maximum housing buildout based on impacts on community services and infrastructure. Second units and extended stay hotel rooms shall not count against the maximum housing buildout."

Section 4. Implementation.

The collaborative public process identified in Section 2B of this Initiative shall be completed by November

30, 2009.

Section 5. Effectiveness.

A. Effective Date. This Initiative shall take effect if a majority of the votes cast on the Initiative are in favor of its adoption.

B. Conflict. The initiative entitled Save Pleasanton's Hills & Housing Cap initiative, which appears on the same general municipal election ballot as this Initiative, shall be deemed to be in conflict with this Initiative. In the event that this Initiative receives a greater number of affirmative votes, the provisions of this Initiative shall prevail in their entirely, and each and every provision of the other initiative shall be null and void.

Section 6. Exemption for Vested Projects.

This Initiative shall not apply to any development project that has obtained as of the effective date of the Initiative a vested right pursuant to State law.

Section 7. Severability.

If any portion of this Initiative is hereafter declared invalid by a court of competent jurisdiction, all remaining portions are to be considered valid and shall remain in full force and effect.

Section 8. Amendment or Repeal.

This Initiative may be amended or repealed only by the voters of the City of Pleasanton at a City election.

EXHIBIT D

PUD-25, Mike Meyer/Tim Quinn, Greenbriar Homes, Lund Ranch II
Review and provide comments on the Revised Draft Environmental Impact Report (July 2014) for the Lund Ranch II Planned Unit Development, a proposed 50-lot residential development located at 1500 Lund Ranch Road (end of Lund Ranch Road). Zoning for the property is PUD-LDR/OS (Planned Unit Development – Low Density Residential/Open Space) District.

Chair O'Connor recused himself due to a conflict of interest. Commissioner Allen chaired the discussion.

Mr. Dolan started by stating that he would like to take this opportunity to repeat the announcement he made earlier regarding the purpose of this hearing, reiterating that it is not a public hearing on the project, but rather, essentially the Planning Commission hosting a meeting where people can submit and give comments on the adequacy of the Environmental Impact Report (EIR). He stated that comments about which alternative is preferred will be useful to staff at the public hearing on the project.

Mr. Dolan stated that staff will respond to comments on the EIR in writing and will not be responding to the comments tonight. He indicated that a full, thoughtful, written response on any comment that addresses the adequacy of the EIR will be given, identifying the speaker or the comment, followed by a response. He noted that sometimes the response would be a change in the EIR, and at other times, it is an expansion of some explanation about certain sections of the EIR. He stated that it is a somewhat limited scope and that he recognizes that it is sometimes difficult to distinguish the difference. He asked everyone to do their best to try and focus on the EIR.

Marion Pavan presented the staff report and stated that the comments will be addressed in the Response to Comments, which, combined with the Revised Draft EIR, would comprise the Final EIR, which includes revisions to the text as well as a Mitigation Monitoring and Reporting Program which is required by CEQA. He indicated that the EIR is an information document only and addresses environmental impacts, mitigation, impacts that cannot be mitigated, and alternatives. He stated that the purpose of the EIR is to fulfill CEQA requirements by addressing the environmental impacts of the project; it does not constitute approval or rejection of the project.

Mr. Pavan stated that approving the Final EIR or finding it complete for CEQA purposes does not compel the City to approve the project; the City can still deny the project. He added that approved Mitigation Measures must be incorporated in the project either as revisions to the design or as part of the Conditions of Approval.

Mr. Dolan reminded everyone that written comments are treated exactly the same as comments made tonight. He noted that staff has received a number of written comments, a lot of which are on the project and not on the EIR. He stated that these will be saved and will be evaluated and submitted to the Commission. He added that these comments will be more relevant at the next hearing because there is so much on

preferences. He noted that staff will be taking additional comments beyond tonight's meeting through the end of day September 2, 2014.

Acting Chair Allen stated that someone asked her if there is any more weight given to one person asking the question versus ten people asking the same question.

Mr. Dolan replied that the obligation staff has is to provide an answer to the question. He explained that what often happens is that 20 people will ask the same question, and staff will answer it once, and when it is asked the next time, the commenter will be recorded and then referred back to the response to the original comment, except if there is a certain twist on the question, which might provide something new to the response. He indicated that a valid comment is a valid comment if one person makes it or 20 people make it.

THE PUBLIC HEARING WAS OPENED.

Bill Lincoln first thanked the Commissioners for what they do. He then asked what process was used to identify and then develop the alternate access scenarios for Lund Ranch: if there were other scenarios considered and then left off or if everything that was considered added to the EIR. He further inquired if there was input from neighborhoods, from the Planning Division, the Planning Commission, the developer, or the Ventana Hills neighborhood.

- Mr. Lincoln stated that he measured Sunset Creek Lane, and it is 29 feet wide. He indicated that if there is a car parked on each side of Sunset Creek Lane, there is enough room for only one car to go down the street. He pointed out that that is a significant fact and is not included in the EIR. He added that he then went down and measured Independence Drive, Lund Ranch Road, and Junipero Street, and they are all 37 feet wide, with room for two-way traffic and with Lund Ranch Road going all the way up. He again pointed out that this should be reflected in the EIR.
-
- Finally, Mr. Lincoln noted that there are several references in the EIR to some sort of agreement or contract between the neighborhood which prohibits the use of Lund Ranch Road. He stated that if that document exists, he would like that to appear in the EIR because it is significant and also impacts many of the residents in that area.

Kay Ayala noted in the EIR that of the 146 trees to be removed, 80 are heritage trees. She stated that she agrees with the comments to save more heritage trees and requested that this please be addressed. She then referred to the view shed and Figures 4.2-3B, where the proposed project is shown in green. She stated that she has been told that someone standing in a certain spot and can see the valley can certainly be seen from that valley. She requested that staff look once more at the view shed of the project.

Ms. Ayala then addressed the subject of roads. She stated that her number one goal in this project is to do the right thing for Pleasanton, do the thing that was planned since 1991 when Ken Mercer was the Mayor, and Pleasanton being a community of character means being true to the written word. She noted that back in 1991, the written word on the Lund Ranch project was that if it were to be developed, the access would be through North Sycamore. She continued that in 1992, 1998, 1999, 2003, 2011, in the General Plan of 2005, and in all the PUDs from 1991 until the present day, there is not any one document that designates Lund Ranch Road as an access road to this property. She indicated that she would like to meet with each of the Commissioners individually, if they would allow her the time, to give them the history that should have been done for this application.

David Melaugh complimented the Commissioners as well for their patience and dedication. He then inquired whether it was appropriate to consider the nature of the residences on the streets being studied as two facilities have recently opened in the Sycamore Heights neighborhood: the Sunol Creek Memory Care Center, which specializes in the care of Alzheimer patients, and the Care Meridian facility, which specializes in the care of people who suffer traumatic brain or spinal cord injuries. He noted that residents of both facilities, located at the mouth of the Sycamore Heights neighborhood, would be particularly sensitive to changes in traffic patterns, in noise, and in things and scenarios that route significant additional traffic through the Sycamore Heights neighborhood. He added that to some extent, Sycamore Heights residents have done their share for the expansion of Pleasanton, and with these two new facilities that have increased traffic to their neighborhood, it would seem fair to route traffic to the north end.

Mr. Melaugh stated that he would like to address the letter submitted by the Ventana Hills advocacy group, Exhibit I of the staff report. He referred to Table 4.6.1, page 4.6-4 of the Revised Draft EIR, which shows that there are 3,400 cars per day on the Sycamore Heights collection point, and indicated that it might be more persuasive to phrase the EIR in comparative effects. He noted that Ventana Hills complains that the EIR claims the noise impact in Scenario 6 (Sunset Creek Lane connection) to be significant, yet the difference in decibel levels compared to the noise on Lund Ranch Road to Independence Drive and Junipero Street is only 0.2 dBA. He pointed out that the percentage increase between the current road noise and the proposed noise level in Sycamore Heights is about 20 percent versus the 5-10 percent increase in road noise level for Ventana Hills. He suggested that the comparative numbers be taken into account in staff's response to the Ventana Hills letter.

Phyllis Lee submitted a speaker card but left the meeting earlier and did not speak.

Justin Brown stated that he had previously submitted his comments and wanted to speak on behalf of the Ventana Hills neighborhood. He noted that the letter submitted by the Ventana Hills Steering Committee addressing the EIR points out a number of inconsistencies and apparent biases in the assessments, including a distinction that a 0.2 dBA difference is significant in one scenario but not in other scenarios. He indicated

that he thinks this is a bit erroneous, especially after the discussion in an earlier application tonight about car washes and street noise being excessive, and the example of a 0.2 dBA difference makes a material difference in the EIR report.

Chris Markle stated that his fundamental concern is around the adequacy of the EIR with respect to the environmental impacts of Lund Ranch Road and entry options. He inquired if the EIR covers the environmental impact of properties outside of the actual Lund Ranch II area, such as the section of unfinished property above Sunset Creek Lane and above Sycamore Creek Way. He noted that the EIR refers to visual analysis and aesthetics but does not address the mighty aesthetics of running a road through the hills at the top of the Sunset Creek Lane and Sycamore Creek Way areas, into Sunset Creek Lane and Sycamore Creek Way, and down into the property. He stated that the EIR is possibly focused now on a primary alternative, but there is also a secondary alternative for traffic. He added that the aesthetics associated with the eight other scenarios should be considered as that was not adequately covered in the EIR. He noted that the access scenarios in the EIR have a basic layout of alternatives from above and shows the layout of the various road alternatives and ingress or egress alternatives from above. He pointed out that while those are helpful, there should also be diagrams, mockups, and simulations for the eight alternatives that cross hills, that show these elevations coming in or out of the property and from a sideways view as opposed to a vertical view, which masks some of the aesthetics and visual impacts of these various routes.

Mr. Markle stated that he just learned tonight that the Bonde Ranch PUD 90-18 approval included some conditions about street connections. He indicated that some clarification is needed with respect to those other two roads or accesses associated with the Bonde Ranch approval in relation to the Lund Ranch Road.

Raj Rasagopalan stated that he wants to make sure that some of the 80 heritage trees included in the 140 trees to be removed could be saved because losing those many trees is an issue. He then addressed the traffic issue and referred to the two care centers in the Sycamore Heights area mentioned earlier by Mr. Melaugh, noting that every evening, he sees about two or three elderly in wheelchairs, generally where the bicycle traffic is, and the attendants sometimes do not pay attention to the oncoming traffic around them. He added that there is definitely more jobs in that area, and what used to take him two minutes to get onto Sunol Boulevard now takes him five minutes with all the vehicles coming into the two complexes. He suggested that staff address this traffic issue as well.

Amy Lofland, an original owner at Ventana Hills and a member of the Ventana Hills Steering Committee, stated that the Ventana Hills Steering Committee was formed as a result of a motion adopted by the Pleasanton City Council at the April 2, 1991 meeting to provide orderly input from Ventana Hills and other surrounding neighborhoods to reach successful negotiation of the Bonde Ranch development. She indicated that these discussions and negotiations were initiated by then Mayor Ken Mercer, and the agreements are significant as they were negotiated in cooperation with Brian Swift, then

Director of Planning and Community Development for the City of Pleasanton, agreed to by the residents of Ventana Hills and the developer, Shappell Industries of Northern California, and adopted by the Pleasanton City Council. She noted that all the members appointed to the Steering Committee were, at that time, and continue to be, residents of the Ventana Hills Subdivision. She continued that along with traffic circulation for the Lund Ranch II property being discussed during the Bonde development negotiations, further meetings and workshops were held in 1991 and 1992 between surrounding neighborhoods in the southeast Pleasanton, Brian Swift, and other Pleasanton City representatives to lay out the foundation for the North Sycamore Specific Plan and the Happy Valley Specific Plan, which were adopted into the General Plan.

Ms. Lofland stated that a letter from their Committee, dated August 15, 2014, is included in the Commission packet. She indicated that there is a lot of history over the past 22 years with regard to potential traffic flow from any development from the Lund Ranch II site. She noted that all past agreements and understandings with previous City Councils, the Bonde Ranch development, and the North Sycamore Specific Plan, and as re-affirmed by the City General Plan, indicate that the traffic from this development would flow to the east/west collector now known as Sycamore Creek Way out to Sunol Boulevard. She added that the list of documents substantiating this planned traffic flow is attached to the letter from the Committee.

Ms. Lofland stated that she would like to provide additional documentation tonight to assist the Commission in gaining a more complete understanding of the area: a copy of the original Letter of Understanding from the Bonde Ranch approval, which will help clarify Exhibit D of the staff report, Condition 2.b.13) of Ordinance 1509 approving the Bonde Ranch development. She noted that the Sycamore Heights and the Bridal Creek CC&R's, which were part of the closing documents each homeowner approved and signed prior to purchasing their home and their public record, clearly detail the anticipation of future development to the east, including specifically the Lund Ranch II PUD and the road connections to this development. She pointed out that each homeowner in the Sycamore Heights and Bridal Creek areas had full disclosure of the road connections to Lund Ranch II. She added that the statement on page 10 of the staff report regarding connection to Sunset Creek Lane that "…construction of the street connection from the Lund Ranch II development to Sunset Creek Lane is not required to reduce congestion on Lund Ranch Road or to provide a second access for emergency vehicles" is incorrect, because the road connection at Sunset Creek Lane is required to maintain previous agreements and understandings and to fulfill the City's adopted circulation plan with no connection to Lund Ranch Road. She stated that in order for this EIR to be legally adequate, the development of Scenario 6; the Sunset Creek Lane connection, must be completed so the Planning Commission and City Council have an approvable and environmentally reviewed option consistent with what the City's adopted Circulation Plan through the North Sycamore Area and the General Plan.

THE PUBLIC HEARING WAS CLOSED.

Acting Chair Allen thanked all the speakers for their thoughtful comments and for being so concise.

Commissioner Ritter inquired if the original EIR was started before Measures PP and QQ were approved.

Mr. Dolan said yes.

Commissioner Ritter further inquired if the EIR was then stopped, and tonight's EIR is the new one using the new Measures PP and QQ approved by the citizens of Pleasanton.

Mr. Dolan replied that is correct. He indicated that the project changed in response to Measure PP, so the EIR is new and is all based on the current situation.

Commissioner Piper stated that she does not have any specific comments other than to thank people for coming out and spending hours participating in this subject.

Commissioner Ritter also thanked everyone for coming. He indicated that one thing he wants to make sure is included in the EIR is more details on the calculations on the exit and the egress rights, including Measures PP and QQ, as a number of letters came in saying the calculations were based on rooftop or pad heights.

Commissioner Balch stated that he would like to see additional discussion and possible alternatives other than the standard mitigation on the heritage trees issue that was brought up by several speakers and commented on in the EIR. He indicated that a second thing he has concern with is the connection point at I-680 in lieu of standard traffic impact fees, which do not appear to help or do anything to that intersection.

Mr. Dolan replied that these are legitimate questions and that staff will respond to it in the EIR.

Commissioner Balch noted that there is an entire section on Measures PP ad QQ but that he has some difficulty understanding the comments in relation to what structures are qualifying for or not. He indicated that that would be another broad leaf check to make sure that definitions are included.

Mr. Dolan explained that Measure PP does not address a lot of the detailed issues, and the analysis on Measure PP in the EIR evaluates and discusses the various interpretations. He stated that the City Council will ultimately opine on some of those issues related to this project, and staff will make use of them. He indicated that when the Planning Commission discusses the merits of this project, it will be perfectly legitimate and appropriate for the Commissioners to include its recommendation on certain aspects of the implementation of Measure PP. He stated that it will not necessarily be an EIR issue, but it will be fair game in staff's analysis. He added that that does not mean staff is going to ignore them but that, fundamentally, the primary

issue in the comments is the way the road connects to the existing system, and there is no way to avoid it. He indicated that this is going to take up almost all of the discussion, and there will be analysis outside of the EIR because some of it does include consideration of environmental impacts, but ultimately it is about who has to put up with more traffic in their neighborhood. He further indicated that triggering a level-of-service impact would not necessarily be identified in the EIR, but it will still involve whether or not the level of service slips from one level of service to the next.

Commissioner Balch stated that he recalls that, based on the traffic calculations, various intersections will be addressed, including three or four intersections beyond the I-680 interchange, because those would be the first to fail. He asked staff if that was correct.

Mr. Dolan replied that any intersection that would potentially have an impact is evaluated.

Acting Chair Allen stated that she has four or five items: (1) Include a table in the EIR that indicates the street-facing setbacks proposed along some of the primary streets that have been considered for major access points, such as Sycamore Creek Way, Sunset Creek Lane, and Junipero Street. (2) Provide the Commission with a copy of the disclosures that have been referred to and include that somewhere in the EIR for the benefit of new homeowners in the Sycamore Creek area and where they relate to the access points (3) Provide a clear chronology around the history of this project relative to road access and agreements that have been made historically, including Measures PP and QQ and the General Plan. (4) Create a thorough analysis for the scenarios, especially of Scenario 6, including the full mitigation measures for the scenario and some of the points in Ms. Lofland's memo, as this is really important for everyone, particularly the Ventana Hills Steering Committee, to really understand what the issues would be and how they could be thoroughly mitigated.

THE PUBLIC HEARING WAS RE-OPENED.

Mr. Melaugh inquired if staff will do a detailed analysis of just one particular alternative and why that particular one and not all of them, since all of them have already been done in the EIR anyway.

THE PUBLIC HEARING WAS CLOSED.

Acting Chair Allen stated that staff will take note of that. She added that the important thing is that all alternatives be analyzed well.

Mr. Dolan explained that CEQA requires that the environmental impacts of the application be evaluated, and that is the reason there is always concentration on one, which is the application that was made. He added that staff is also obligated to evaluate a reasonable range of alternatives, and that determination is based on what the logical alternatives are. He indicated that that is what staff did, and the analyses do not have

to be at the same level of detail because they could be easily dismissed or a project that is one of those alternatives could ultimately be approved.

Acting Chair Allen thanked Mr. Dolan for the clarification and informed the audience that additional questions or comments on other alternatives and issues can be submitted to staff through 5:00 p.m. on September 2, 2014.

No action was taken.

EXHIBIT E

WAYNE L & CAROLYN M STRICKLER

851 INDEPENDENCE COURT
PLEASANTON, CA 94566
(415) 462-1083 (415) 462-2157

May 1, 1991

Mr. Brian Swift
Director of Planning
City of Pleasanton
200 Old Bernal Avenue
Pleasanton, CA 94566

Dear Mr. Swift:

Enclosed with this letter, please find an original "Letter of Understanding", dated April 19, 1991, executed between the Ventana Hills Steering Committee and Shapell Industries of Northern California.

This letter is intended to be included in the Bonde Ranch Project, PUD-90-18.

Sincerely,

Wayne L. Strickler

Enc

LETTER OF UNDERSTANDING

April 19, 1991

Shapell Industries of Northern California, together with members of the Ventana Hills Steering Committee, have negotiated the following agreement(s), regarding project design(s) to be incorporated into PUD-90-18, all parties recognizing that the final decision on the following items rests with the Pleasanton City Council.

a. All references to topographic details, project design features and lot locations are from the **REVISED MITIGATED ALTERNATIVE 3-25-91** SITE PLAN, Bissell & Karn Civil Engineers, Sheet 1, Job # NO592.91, and the Ventana Hills Tract Map 5680 "as built".

b. The section of "F" Street extending in an easterly direction for a distance of approximately 325 feet, beginning at the most eastern intersection of "K" Court and "F" Street will be permanently designated as "Emergency Vehicle Access".

c. "G" Court will be permanently directed and extended easterly to intersect at the boundary of Bonde Ranch and Lund Ranch.

d. Shapell Industries will use their "best efforts", together with the City of Pleasanton Director of Planning, to obtain a reasonable and cost effective right-of way connecting "G" Court with Lund Ranch Road, routing a temporary road east of Ventana Hills through Lund Ranch. Shapell Industries will post a bond with the City of Pleasanton in sufficient amount to insure performance of abandonment and removal of this temporary road at such time as Lund Ranch is developed. Permanent routing for access to and from "G" Court is intended to connect through proposed development on Lund Ranch, to a proposed "East-West Collector Road", without direct connection to Ventana Hills.

e. The Steering Committee is to obtain agreement with homeowners in Ventana Hills lot 43 & lot 44 to route the temporary right-of-way described in "d" above.

f. In the event neither a reasonable and cost effective right-of-way is negotiated nor approval obtained from homeowners in Ventana Hills lot 43 & lot 44 (as described in paragraph d & e above), "F" Street as described in paragraph b above may be constructed as a temporary connector only between "G" Court and "K" Court. In the event this alternative is exercised, Shapell Industries will construct this portion of "F" Street to a reduced width of approximately 24 feet as approved by the Director of Public Works, and provide for a single temporary pedestrian walkway on the north side. At such time as permanent right-of-way is available from "G" Court through Lund Ranch, Shapell will revise the section of "F" Street described in this paragraph to be suitable for an Emergency Vehicle Accessway.

Shapell Industries will post a bond with the City of Pleasanton in sufficient amount to insure performance of abandonment, removal, conversion and restoration of the natural topography of this section of "F" Street not needed for the permanent Emergency Vehicle Accessway, and pedestrian access as may be deemed necessary by the City.

g. Shapell Industries will be required to disclose to home purchasers on "L" Court, "K" Court and "G" Court, and to obtain in writing the understanding of these home purchasers, that the section of "F" Street between "K" Court and "G" Court is designated as Emergency Vehicle Access only and will be abandoned to vehicle traffic once "G" Court access is connected to a public street when Lund Ranch is developed.

h. Lot 16 & lot 32C will be deleted and this area will be contoured to maintain a natural slope appearance. Shapell will revegetate these areas, as necessary, for erosion control, appearance and screening.

i. "G" Court will be routed at a more sweeping curve. Lot 31 will be redesigned, incorporating a portion of the most westerly portion of lot 32c. Construction on lot 31 will be restricted to a single story residence.

j. Lot 9c & lot 15 on "L" Court and "K" Court respectively, will be deleted. "L" and "K" Courts will be redesigned to terminate with Lot 8 & lot 14.

k. Lot 72 and lot 73 will be redesigned to incorporate a permanent 4 foot natural dirt berm around the perimeter of the lots facing Ventana Hills. Construction on lot 72 & lot 73 will be limited to single story residences, constructed at a pad elevation at least four vertical feet below the top of the dirt berm. Landscaping and slope vegetation will be installed in an attempt to screen the residence from view of Ventana Hills.

l. Lot perimeter fencing on Lot 72 and lot 73 will be installed in a fashion to be only minimally visible, if at all. Depending upon the conditions of the future vehicle required by the City of Pleasanton for open space maintenance, this paragraph does not apply to fencing which may be necessary to contain livestock, nor will it apply should the open space area(s) be incorporated into the City park system.

m. Residences on lot 72 & lot 73 will be placed such as to incorporate the least possible front yard setback, with an attempt to reduce visibility from Ventana Hills. Shapell will disclose to the purchaser of lot 74c that the building pad and construction must set back a minimum of 40 feet from the south-western property line facing "K" Court.

n. Lot 1, lot 2 & lot 3c will be deleted. The land topography will remain in its natural state and appearance, will be subject to no cutting and contain no fill except to meet geological requirements as approved by the City of Pleasanton, and will not be used during construction for materials or vehicle storage, staging or any construction activity other than a direct access haul road between "A" Court, "L" Court, "K" Court and "G" Court.

o. The haul road to be used during construction connecting "A" Court with "L" Court shall be abandoned at completion of construction. Shapell agrees to restore the natural topography as nearly as possible to it's present grading, level and appearance as approved by the City.

p. Custom lots 41c, 74c & lot 75c shall be subject to architectural approval by the Design Review Board of the City.

q. The **REVISED MITIGATED ALTERNATIVE 4-19-91** SITE PLAN, Bissell & Karn Civil Engineers, Sheet 1, Job # N0592.91 reflects these changes and is as agreed to in this "Letter of Understanding".

r. Shapell has been advised that residents of Ventana Hills wish to participate in future discussions regarding landscaping, home design, landscape and lighting maintenance district.

s. The Steering Committee members agree as individuals to the principle of a future Steering Committee negotiating development plans for development of the Lund Ranch.

t. The Steering Committee is a group of interested neighbors and not an elected representative committee of residents.

SHAPELL INDUSTRIES OF NORTHERN CALIFORNIA

L. B. PEREIRA Vice President

VENTANA HILLS STEERING COMMITTEE

GEORGE A ALLBRITTEN

GEORGE T DORT

AMY LOFLAND

WAYNE L STRICKLER

CAROL TURTURICI

MARGOT KELLY "alternate"

EXHIBIT F

CITY COUNCIL OF THE CITY OF PLEASANTON

ALAMEDA COUNTY, CALIFORNIA

ORDINANCE NO. 1508

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PLEASANTON ADDING CHAPTER 9.30, "WATER CONSERVATION PLAN" TO THE PLEASANTON MUNICIPAL CODE, REGULATING AND PROHIBITING CERTAIN USES OF WATER, PRESCRIBING PENALTIES FOR NON-COMPLIANCE, ESTABLISHING AN ADJUSTMENT PROCEDURE AND DECLARING THE PRESENCE OF AN EMERGENCY AND DECLARING THE URGENCY THEREOF

THE CITY COUNCIL OF THE CITY OF PLEASANTON MAKES THE FOLLOWING FINDINGS:

WHEREAS, water is a finite resource that should not be wasted; and

WHEREAS, a water shortage emergency exists throughout the State of California because of a prolonged drought; and

WHEREAS, it is imperative to the public welfare that those uses of water which constitute waste or abuse of the resource be prohibited; and

WHEREAS, it is necessary to conserve the water supply of the City of Pleasanton for the greatest public benefit and to discourage wasteful and unproductive uses of water; and

WHEREAS, Zone 7 of the Alameda County Flood Control and Water Conservation District (hereinafter Zone 7) is the wholesaler of all treated surface water delivered within the Livermore-Amador Valley, the majority of which water is imported from the State Water Project, operated by the State Department of Water Resources; and

WHEREAS, the City of Pleasanton is a water retailer providing water service to persons, firms, partnerships, associations, corporations, and political entities within Pleasanton and surrounding areas, all within Alameda County, California; and

WHEREAS, by contract, the City of Pleasanton depends upon Zone 7 to supply approximately 75% of the water the City sells, with the remaining 25% of the City's water supply coming from local groundwater pumped by City owned wells; and

WHEREAS, due to the current drought conditions, Zone 7 expects to receive as much as a 90% reduction in the water supply from the State Department of Water Resources; and

WHEREAS, with up to a 90% reduction in the treated water supply, the entire Valley is essentially dependent on its groundwater pumping capabilities to supply all Valley-wide customer demands; and

WHEREAS, in order to work within these drastic cuts in surface water deliveries from the State and still meet the upcoming summer demands in the Valley, Zone 7, with cooperation of the City of Pleasanton and the California Water Service of Livermore, has proposed a Valley-wide production and distribution plan which will pool all of the Valley-wide groundwater pumping facilities to pump out of the local groundwater basin; and

WHEREAS, this plan will work, however, only if Valley-wide demands during the upcoming summer months are reduced as provided herein from 1990 demands; and

WHEREAS, this plan will require a somewhat different form of conservation because (a) water saved one day does not necessarily increase the supply on another day, (b) conservation must be effective each day in summer to stay within the amount that can be pumped each day, and (c) this plan has been devised to meet limitations on peak summer flows rather than to reduce average total flows, as many water rationing plans do; and

WHEREAS, an analysis of water supplies indicate water available from all of the City's sources may be insufficient to meet average demand for the summer period; and

WHEREAS, the regulations and fees hereinafter enacted are designed to discourage non-essential or wasteful uses of water, to encourage conservation, to minimize peak load demands on City facilities, to conserve the water supply of the City for the greatest public benefit with particular regard to domestic use, community economic viability, sanitation, and fire protection; and

WHEREAS, the water use allocations hereinafter established will spread the burden of reduced use equitably over all consumers of City water, consistent with the City's ability to administer such allocations.

NOW, THEREFORE, BASED ON THE ABOVE FINDINGS, IT IS HEREBY ORDAINED BY THE CITY COUNCIL OF THE CITY OF PLEASANTON, CALIFORNIA:

Section 1. Chapter 9.30 "Water Conservation Plan" is hereby added to the Pleasanton Municipal Code, to read as follows:

Ordinance No. 1508

"Chapter 9.30

Water Conservation Plan

9.30.010. DECLARATION OF EMERGENCY.

It is hereby found and declared that a water shortage and emergency exists within the water service area of the City of Pleasanton, as total projected customer water use from May through September (the peak summer period of this and any future year), may exceed the projected water supply for the same period. It is necessary to regulate and prohibit certain water uses as provided in this ordinance in order to address adequately this water shortage and emergency.

9.30.020. DECLARATION OF PURPOSE.

The purpose of Ordinance is to provide both voluntary and mandatory water conservation stages to minimize the effect of a shortage of water on the City's customers and, by means of this Ordinance, to adopt provisions that will significantly reduce the consumption of water over an extended period of time, thereby extending the available water required for the City's customers while reducing the hardship to the greatest extent possible on or to the City and on or to the general public.

9.30.030. APPLICATION OF ORDINANCE.

The provisions of this ordinance shall apply to all customers, as defined herein, regardless of whether any customer using water shall have a contract for water service with the City. Notwithstanding other Municipal Code provisions inconsistent with this Ordinance, the provisions of this Ordinance shall supersede and prevail for the duration of the emergency and until termination of this Ordinance.

9.30.040. DEFINITIONS.

A. "Allocation" means the amount of water used by a customer during the comparable summer billing period in 1990, as reduced by the percentage established in Stage II through Stage VI herein; provided, however, that for residential customers, the allocation shall never exceed the "ceiling" as established in the various Stages.

B. "Ceiling" means twice the amount of the "floor."

C. "City" means the City of Pleasanton.

D. "Customer" means a person, firm, partnership, association, corporation and all other institutions and businesses receiving water from the water distribution system of the City.

E. "Director" means the Director of Public Works and Utilities of the City.

F. "Floor" means the average summer water use during 1990 for each residential customer classification, as reduced by the percentage established in Stage II through Stage VI herein. For example, the average summer water use during 1990 for single family residential customers was 703 GPD; in Stage II, the average (703 GPD) would be reduced by 25% to yield a "floor" of 525 GPD.

G. "Excess Use" means the difference between a customer's actual consumption of water for the billing period and the customer's allocation.

H. "GPD" means gallons per day.

I. "Summer" means the months of May through September, inclusive.

9.30.050. CREATION OF CLASSES

The following classes of customers or uses are hereby created:

A. "Single family residential" consists of water service to land improved with structures designed to serve as a residence for a single family.

B. "Multiple family residential-apartments" consists of water service to land improved with structures designed to serve as apartments.

C. "Multiple family residential-townhouses/condominiums" consists of water service to land improved with structures designed to serve as townhouses or condominiums.

D. "Nonresidential" consists of water service to land improved with structures designed to serve water for other than residential uses. Commercial (including restaurants), recreational, charitable, educational and cultural uses are included in this class.

E. "Irrigation" consists of water service which is separately metered and is used exclusively to water turf and other landscaping areas.

9.30.060. REDUCTION IN WATER USE.

A. The following stages of reduction in water use depend on the total amount of water supplied to the City by Zone 7 and the amount of water the City is able to pump out of the groundwater basin from its own wells. These stages are based upon the following information concerning City of Pleasanton customers:

1. Summer use for single family residential customers is approximately 56.5 hundred cubic feet bimonthly or 703 GPD.

2. Summer use for multiple family residential-apartment customers is approximately 13 hundred cubic feet bimonthly or 162 GPD per apartment unit.

3. Summer use for multiple family residential-townhouse/condominium customers is 18.7 hundred cubic feet bimonthly or 233 GPD per townhouse/condominium unit.

B. Based upon these uses and the proposed reductions in deliveries from Zone 7, the Director is empowered to impose and enforce reductions in each of the following stages of this section when it is determined, through engineering analysis, that the available daily water demand exceeds, or is expected to exceed, the daily water supply from all of the City's sources.

C. The following table gives a summary of the stages of reductions in water use which may be imposed to meet customer water demands.

REDUCTIONS IN WATER USE

STAGE I	25% Overall Reduction in Water Use (Voluntary)
STAGE II	25% Overall Reduction in Water Use (Mandatory)
STAGE III	35% Overall Reduction in Water Use (Mandatory)
STAGE IV	40% Overall Reduction in Water Use (Mandatory)
STAGE V	50% Overall Reduction in Water Use (Mandatory)
STAGE VI	60% Overall Reduction in Water Use (Mandatory)
STAGE VII	Emergency Shutoff

9.30.070. STAGE I: 25% VOLUNTARY REDUCTION IN WATER USE.

The Director may declare a Stage I reduction in water use and thereby impose a voluntary reduction in water use as follows:

A. Every customer shall use no more water than the customer used during the comparable billing period in 1990, and every customer shall eliminate wasting potable water in an effort to aid the City in achieving a twenty-five percent reduction in the amount of water used by all customers during comparable billing periods in 1990. New customers shall not use in excess of seventy-five percent of the City's estimated consumption for similar customers.

B. To achieve this reduction, each residential customer shall reduce its summer bimonthly use by 25%, each non-residential customer shall reduce its summer bimonthly use by 15% and each irrigation customer shall reduce its summer bimonthly use by 35%.

C. In addition, the Director shall recommend that all customers take the following conservation measures:

1. Residential Guidelines

   a. Use water conserving appliances and practices in the kitchen and bathroom.
   b. Use shut-off nozzles on hoses.
   c. Cover pools when not in use.
   d. Begin a water meter record to determine daily usage.
   e. Water lawns no more than twice weekly and before 10:00 a.m.; avoid overspray and run-off.
   f. Sweep paved areas; do not wash down.
   g. Inspect for leaks and repair promptly.

2. Non-residential

   a. Restaurants shall serve water only on request.
   b. Irrigate no more than twice weekly; avoid overspray and run-off.
   c. Perform water audit of facilities in order to prioritize water uses.

3. Irrigation

   a. Perform water audit of turf and other landscaping areas.
   b. Limit watering to no more than twice weekly.

c. Avoid watering in excess of the evapotranspiration rate.

9.30.080. STAGE II - 25% MANDATORY REDUCTION IN RESIDENTIAL USE; 15% MANDATORY REDUCTION IN NON-RESIDENTIAL USE; 35% MANDATORY REDUCTION IN IRRIGATION USE.

The Director may declare a Stage II reduction in water use and thereby impose a mandatory reduction in water use as follows:

A. Each residential customer shall reduce its water use by 25% from the comparable billing period in 1990.

1. For single family residential customers:

a. The floor shall be 42 hundred cubic feet per bimonthly billing period (525 GPD).
b. The ceiling shall be 84 hundred cubic feet per bimonthly billing period (1050 GPD).

2. For multiple family residential - apartment - customers:

a. The floor shall be 10 hundred cubic feet per bimonthly billing period per apartment unit (122 GPD per apartment unit).
b. The ceiling shall be 20 hundred cubic feet per bimonthly billing period per apartment unit (244 GPD per apartment unit.)

3. Multiple family residential - townhouses/condominium customers:

a. The floor shall be 14 hundred cubic feet per bimonthly billing period per unit (175 GPD per unit).
b. The ceiling shall be 28 hundred cubic feet per bimonthly billing period per unit (350 GPD per unit.)

B. Each non-residential customer shall reduce its water use by 15% from the comparable billing period in 1990 except as follows:

1. Every athletic club customer shall reduce its water use by 25% from the comparable billing period in 1990.

2. Every customer using water to manufacture, alter, convert, clean, grow, heat or cool a product, including laundries, and car wash facilities that recycle their water, shall reduce its use by 10% from the comparable billing period in 1990.

C. Every irrigation customer shall reduce its water use by 35% from the comparable billing period in 1990.

D. The water conservation measures set forth in Section 9.30.070C are mandatory.

9.30.090. STAGE III: 35% MANDATORY REDUCTION IN RESIDENTIAL USE; 15% MANDATORY REDUCTION IN NON-RESIDENTIAL USE; 40% MANDATORY REDUCTION IN IRRIGATION USE.

The Director may declare a Stage III reduction in water use and thereby impose a mandatory reduction in water use as follows:

A. Each residential customer shall reduce its water use by 35% from the comparable billing period in 1990.

1. For single family residential customers:

a. The floor shall be 36 hundred cubic feet per bimonthly billing period (450 GPD).
b. The ceiling shall be 72 hundred cubic feet per bimonthly billing period (900 GPD).

2. For multiple family residential - apartment - customers:

a. The floor shall be 9 hundred cubic feet per bimonthly billing period per apartment unit (105 GPD per apartment unit).
b. The ceiling shall be 17 hundred cubic feet per bimonthly billing period per apartment unit (210 GPD per apartment unit.)

3. Multiple family residential - townhouses/condominium customers:

a. The floor shall be 12 hundred cubic feet per bimonthly billing period per unit (151 GPD per unit).
b. The ceiling shall be 24 hundred cubic feet per bimonthly billing period per unit (303 GPD per unit).

B. Each non-residential customer shall reduce its water use by 15% from the comparable billing period in 1990 except as follows:

1. Every athletic club customer shall reduce its water use by 35% from the comparable billing period in 1990.

2. Every customer using water to manufacture, alter, convert, clean, grow, heat or cool a product, including laundries, and car wash facilities that recycle their water, shall reduce its use by 10% from the comparable billing period in 1990.

C. Every irrigation customer shall reduce its water use by 40% from the comparable billing period in 1990.

D. The water conservation measures set forth in Section 9.30.070C are mandatory.

9.30.100. STAGE IV - 40% MANDATORY REDUCTION IN RESIDENTIAL WATER USE; 15% MANDATORY REDUCTION IN NON-RESIDENTIAL WATER USE; 45% MANDATORY REDUCTION IN IRRIGATION USE.

The Director may declare a Stage IV reduction in water use and thereby impose a mandatory reduction in water use as follows:

A. Each residential customer shall reduce its water use by 40% from the comparable billing period in 1990.

1. For single family residential customers:

a. The floor shall be 34 hundred cubic feet per bimonthly billing period (425 GPD).
b. The ceiling shall be 68 hundred cubic feet per bimonthly billing period (850 GPD).

2. For multiple family residential - apartment - customers:

a. The floor shall be 8 hundred cubic feet per bimonthly billing period per apartment unit (98 GPD per apartment unit).
b. The ceiling shall be 16 hundred cubic feet per bimonthly billing period per apartment unit (195 GPD per apartment unit.)

3. Multiple family residential - townhouses/condominium customers:

a. The floor shall be 11 hundred cubic feet per bimonthly billing period per unit (140 GPD per unit).
b. The ceiling shall be 22 hundred cubic feet per bimonthly billing period per unit (280 GPD per unit).

B. Each non-residential customer shall reduce its water use by 15% from the comparable billing period in 1990 except as follows:

1. Every athletic club customer shall reduce its water use by 40% from the comparable billing period in 1990.
2. Every customer using water to manufacture, alter, convert, clean, grow, heat or cool a product, including laundries, and car wash facilities that recycle their water, shall reduce its use by 10% from the comparable billing period in 1990.

C. Every irrigation customer shall reduce its water use by 45% from the comparable billing period in 1990.

D. The water conservation measures set forth in Section 9.30.070C are mandatory.

9.30.110. STAGE V - 50% MANDATORY REDUCTION IN RESIDENTIAL WATER USE; 15% MANDATORY REDUCTION IN NON-RESIDENTIAL WATER USE; 60% MANDATORY REDUCTION IN NON-RESIDENTIAL WATER USE.

The Director may declare a Stage V reduction in water use and thereby impose a mandatory reduction in water use as follows:

A. Each residential customer shall reduce its water use by 50% from the comparable billing period in 1990.

1. For single family residential customers:

a. The floor shall be 28 hundred cubic feet per bimonthly billing period (350 GPD).
b. The ceiling shall be 56 hundred cubic feet per bimonthly billing period (700 GPD).

2. For multiple family residential - apartment - customers:

a. The floor shall be 7 hundred cubic feet per bimonthly billing period per apartment unit (81 GPD per apartment unit).

b. The ceiling shall be 13 hundred cubic feet per bimonthly billing period per apartment unit (162 GPD per apartment unit.)

3. Multiple family residential - townhouses/condominium customers:

a. The floor shall be 9 hundred cubic feet per bimonthly billing period per unit (116 GPD per unit).
b. The ceiling shall be 19 hundred cubic feet per bimonthly billing period per unit (233 GPD per unit).

B. Each non-residential customer shall reduce its water use by 15% from the comparable billing period in 1990 except as follows:

1. Every athletic club customer shall reduce its water use by 50% from the comparable billing period in 1990.

2. Every customer using water to manufacture, alter, convert, clean, grow, heat or cool a product, including laundries, and car wash facilities that recycle their water, shall reduce its use by 10% from the comparable billing period in 1990.

C. Every irrigation customer shall reduce its water use by 60% from the comparable billing period in 1990.

D. The water conservation measures set forth in Section 9.30.070C are mandatory.

9.30.120. STAGE VI - 60% MANDATORY REDUCTION IN RESIDENTIAL WATER USE; 15% MANDATORY REDUCTION IN NON-RESIDENTIAL WATER USE; 75% MANDATORY REDUCTION IN IRRIGATION USE.

The Director may declare a Stage VI reduction in water use and thereby impose a mandatory reduction in water use as follows:

A. Each residential customer shall reduce its water use by 60% from the comparable billing period in 1990.

1. For single family residential customers:

a. The floor shall be 22 hundred cubic feet per bimonthly billing period (280 GPD).
b. The ceiling shall be 44 hundred cubic feet per bimonthly billing period (560 GPD).

2. For multiple family residential - apartment - customers:

   a. The floor shall be 5 hundred cubic feet per bimonthly billing period per apartment unit (65 GPD per apartment unit).
   b. The ceiling shall be 11 hundred cubic feet per bimonthly billing period per apartment unit (130 GPD per apartment unit).

3. Multiple family residential - townhouses/condominium customers:

   a. The floor shall be 7 hundred cubic feet per bimonthly billing period per unit (93 GPD per unit).
   b. The ceiling shall be 15 hundred cubic feet per bimonthly billing period per unit (186 GPD per unit.)

B. Each non-residential customer shall reduce its water use by 15% from the comparable billing period in 1990 except as follows:

   1. Every athletic club customer shall reduce its water use by 60% from the comparable billing period in 1990.

   2. Every customer using water to manufacture, alter, convert, clean, grow, heat or cool a product, including laundries, and car wash facilities that recycle their water, shall reduce its use by 10% from the comparable billing period in 1990.

C. Every irrigation customer shall reduce its water use by 75% from the comparable billing period in 1990.

D. The water conservation measures set forth in 9.30.070C are mandatory.

9.30.130. STAGE VII - EMERGENCY SHUTOFF - NON ESSENTIAL USE.

A. It is the purpose of the City of Pleasanton to protect the health and property of customers within the City. Any time there is evidence that the fire storage water volume is threatened in any reservoir or that low water pressure may occur in any pressure zone, the City may, without notice, temporarily shut off by locking out any water service connection. The City shall restore such service as soon as an adequate water supply is assured. Efforts will be made to contact customers from the billing information on record if it appears that service will be interrupted for more than 24 hours.

B. Emergency public announcements may be made by local radio and television whenever a shut off under Stage VII of this Plan is found to be necessary.

9.30.140. EXCESS USE PENALTIES.

A. In order to achieve compliance with this Ordinance, the City Council shall impose penalties for violations of this Ordinance. Dollar amounts of these penalties shall be established by separate City Council resolution.

B. Level One Penalties.

1. Any residential customer who uses water in excess of the customer's allocation, but which use does not exceed the floor as established in the particular Stage, shall be subject to Level One Penalties.

C. Level Two Penalties.

1. Any residential customer who uses water in excess of the customer's allocation, which use exceeds the floor, but which use does not exceed the ceiling, shall be subject to Level Two Penalties for all excess use.

2. Any non-residential customer who uses water in excess of the customer's allocation shall be subject to Level Two Penalties for all excess use.

D. Level Three Penalties.

1. Any residential customer who uses water in excess of the ceiling amount, as established in the particular Stage, shall be subject to Level Three Penalties for all excess use.

2. Any irrigation customer who uses water which exceeds the customer's allocation shall be subject to Level Three Penalties for all excess use.

9.30.150. PROHIBITION OF CERTAIN WATER USES.

During the time this Ordinance is in effect:

A. It is unlawful for any customer to use water obtained from the water system of the City of Pleasanton through fraud, including misrepresentation made to obtain a particular allocation.

B. It is unlawful for any customer to waste water. As used herein, the term "waste" means:

1. Use of potable water between 10:00 a.m. and 4:00 p.m. to irrigate grass, lawns, ground-cover, shrubbery, crops, vegetation, and trees or the use of potable water in such a manner as to result in runoff for more than five (5) minutes;

2. Use of potable water to wash down sidewalks, walkways, driveways, parking lots, open ground or other hard surface areas by the direct application of water thereto;

3. Allowing potable water to escape from breaks within the customer's plumbing system for more than eight (8) hours after the customer is notified or discovers the break;

4. Use of potable water for any purpose in excess of the customer's allocation.

9.30.160. ADJUSTMENTS.

A. Any customer who believes that the application of the provisions of this Ordinance results in unfair treatment or causes undue hardship may seek an adjustment in the customer's allocation.

B. Such customer shall request the adjustment in writing and shall state with specificity the reasons why the adjustment is warranted.

C. The Director and the Finance Director shall consider all requests and make a recommendation on the request to the City Manager. In formulating a recommendation, the Director and Finance Director shall give particular consideration to the following:

1. The reduction would cause conditions threatening to health, sanitation, fire protection or safety of the customer, the customer's dependents or the general public.

2. The reduction would cause unfair economic hardship including, but not limited to, loss of employment, loss of production, or loss of jobs or be unfair or result in the unnecessary loss of a business.

3. Medical requirements of the customer.

4. Household size of the residential customer.

The City Manager's decision as to the request shall be final.

9.30.170. NOTIFICATION TO CUSTOMERS.

When the Director determines that it is necessary to move from one stage of conservation to another, customers will be notified by publication in the newspaper and/or by mail. The failure of any customer to receive actual notice shall not invalidate any action taken by the Director as to a particular customer nor reduce the amount of the penalties provided herein.

9.30.180. CALCULATION OF ALLOWABLE WATER USE FOR NEW CUSTOMERS.

Where the current customer has no billing history, or only a partial billing history, the City shall determine the customer's allocation, based upon the allocation for similar customers.

9.30.190. SEVERABILITY.

If any provision of this ordinance is held to be unconstitutional, it is the intent of the City Council that such portion of such ordinance be severable from the remainder and that the remainder be given full force and effect."

Section 2. This ordinance shall be published once within fifteen (15) days after its adoption in "The Valley Times," a newspaper of general circulation published in the City of Pleasanton.

Ordinance No. 1508

Section 3. This ordinance is declared to be an emergency measure, to take effect immediately upon its adoption and is necessary for preserving the public peace, health, safety, property and the general welfare, for the reasons set forth in the recitals and in Section 9.30.010 of this Chapter.

INTRODUCED and ADOPTED at a regular meeting of the City Council of the City of Pleasanton on April 16, 1991 by the following vote.

AYES: Councilmembers - Butler, Mohr, Scribner, Tarver, and Mayor Mercer
NOES: None
ABSENT: None
ABSTAIN: None

KENNETH R. MERCER, MAYOR

ATTEST:

Peggy J. Ezidro, City Clerk

APPROVED AS TO FORM:

Michael H. Roush, City Attorney

EXHIBIT G

CITY COUNCIL OF THE CITY OF PLEASANTON

ALAMEDA COUNTY, CALIFORNIA

ORDINANCE NO. 1791

AN ORDINANCE CONDITIONALLY APPROVING THE APPLICATION OF NEW CITIES DEVELOPMENT GROUP FOR PUD DEVELOPMENT PLAN APPROVAL, AS FILED UNDER CASE PUD-97-12

WHEREAS, New Cities Development Group has applied for development plan approval for 51 new single-family residential lots and the retention of one existing singe-family home on an approximately 34.7-acre site located at 970 and 986 Sycamore Road in the North Sycamore Specific Plan area; and

WHEREAS, zoning for the property is PUD (Planned Unit development) - LDR (Low Density Residential) District; and

WHEREAS, at its meeting of May 12, 1999, the Planning Commission denied the PUD development plan; and

WHEREAS, within the time specified by the Pleasanton Municipal Code, the applicant appealed the decision to the City Council; and

WHEREAS, the project is within the North Sycamore Specific Plan area for which the City Council has previously approved an Environmental Impact Report; and

WHEREAS, subsequent to the filing of the appeal and after meetings with the surrounding neighborhoods, the applicant submitted a plan for 48 new single-family residential homes and the retention of one existing single-family home on the site; and

WHEREAS, a duly noticed public hearing was held on October 19, 1999 before the City Council; and

WHEREAS, the City Council finds that the proposed PUD development plan is consistent with the General Plan policies of the City of Pleasanton and the North Sycamore Specific Plan.

THE CITY COUNCIL OF THE CITY OF PLEASANTON DOES HEREBY ORDAIN AS FOLLOWS:

Section 1: Approve the development plan for 48 new single-family residential lots and the retention of one existing single-family home on an approximately 34.7-acre site located at 970 and 986 Sycamore Road in the North Sycamore Specific Plan area, subject to the conditions shown on "Exhibit B", attached hereto and incorporated herein by this reference.

Section 2: A summary of this ordinance shall be published once within fifteen (15) days after its adoption in "The Valley Times," a newspaper of general circulation published in the City of Pleasanton, and the complete ordinance shall be posted for fifteen (15) days in the City Clerk's office within fifteen (15) days after its adoption.

Section 3: This ordinance shall be effective thirty (30) days after the date of its final passage and adoption; provided, however, that this ordinance shall be null and void and of no further effect in the event that the Happy Valley annexation (Annexation No. 144) scheduled for a vote in March 2000 fails to pass.

INTRODUCED at a regular meeting of the City Council of the City of Pleasanton on October 19, 1999.

ADOPTED at a regular meeting of the City Council of the City of Pleasanton on October 26, 1999 by the following vote:

AYES: Councilmembers - Ayala, Dennis, and Mayor Tarver
NOES: Councilmembers - Michelotti and Pico
ABSENT: None
ABSTAIN: None

BEN C. TARVER, MAYOR

ATTEST:

Peggy L. Ezidro, City Clerk

APPROVED AS TO FORM:

Michael H. Roush, City Attorney

Exhibit B
Final Conditions of Approval
PUD-97-12
New Cities' Sycamore Heights
October 19, 1999
City Council

Planning

1. Development shall be substantially as shown on the development plans, Exhibit "A", dated "Received August 26, 1999" on file with the Planning Department, except as modified by the following conditions. Minor changes to the plans may be allowed subject to the approval of the Planning Director if found to be in substantial conformance to the approved exhibits.

2. The PUD development plan shall be modified to result in a 49-lot plan (48 new lots and one existing residence) by eliminating Lots 32, 33, and 34. The area formerly contained within these three lots shall become open space. This revised lotting configuration shall be shown on the tentative map submitted for the review and approval by the Planning Commission.

3. This PUD shall be subject to the uses of the R-1 zoning district.

4. No grading shall be permitted on the project site until an access to the project site is available through the Greenbriar property extending from Sunol Boulevard to the western edge of the project site. It shall be the determination of the Planning Director and City Engineer as to when this access is deemed available for use. No framing operations for the proposed structure shall commence until such time that the Planning Director and Fire Marshall determine that the new water tank that will serve the NSSP area is operational and provides a satisfactory flow of water necessary for fire suppression. No occupancy of the structures shall be permitted until it is determined that the new NSSP off-site streets that provide a public access to the property are safe and available for use. It shall be the determination of the Planning Director and City Engineer as to when this access is deemed available for use.

5. The applicant shall obtain all building and other applicable City permits for the project prior to the commencement of construction.

6. The developer shall revise the site plan, grading and utility plan, preliminary landscape plan, site sections, and all other applicable exhibits to reflect the following conditions of

approval. These revised plans shall be submitted for the review and approval of the Planning Commission with review of the tentative map.

7. The homes on Lots 31 and 37 shall be single-story and oriented with their side building elevations facing the existing homes in Ventana Hills. These homes shall be limited to a maximum height of 20 ft. from the highest portion of the structure to the grade elevation at the base of the structure. A deed restriction shall be recorded with the lots and disclosed to all potential buyers that a second-story addition is prohibited on these homes.

8. The design of the custom homes on the split pad lots shall adhere to the requirements of the Design Guidelines for Split Pad Homes in Sycamore Heights approved as part of this PUD development plan.

9. The portion of "B" Street which extends easterly of Lots 28 and 29 shall be graded and reseeded with native grasses instead of being paved. The developer shall be responsible for dedicating the right-of-way and paying for the future improvements, such as sidewalk, roadway, street lights, etc., to this portion of "B" Street which extends to the project's eastern boundary prior to the recordation of the final map. This roadway will be extended to only serve the future development of the Lund Ranch II property to the east and the homes in the Bonde Ranch subdivision which were approved to be rerouted to this new street.

10. In order for the area shown on the developer's plan as Lot 1 to be a buildable lot, the developer shall demonstrate to the City that it has obtained an abandonment of the access easement(s) to the Locke, Kass, Richey and all other applicable properties. In the event that the access easement(s) is not abandoned, the developer shall show how continued use of these easement(s) by the easement holder(s) would be satisfactorily accommodated. Also, the developer shall be required to demonstrate to the City that it holds title to the area of that lot shown to be obtained from the adjacent Bringhurst parcel (Parcel 24 of the NSSP). Documentation that the above has been completed shall be provided with the review of the tentative map. In the event that either one or both of the above items is not completed, this area shall not be deemed a buildable lot unless the developer can satisfactorily demonstrate to the City prior to the approval of the tentative map how a house can be situated on the lot and meet the requirements of the NSSP and the development standards as approved in this PUD. Also, the developer shall complete a lot line adjustment to add the southwest corner of the lot covered by Sycamore Creek to the adjacent creek parcel in the Greenbriar project immediately to the west. If the creek parcel is to be owned by the City, the developer shall make an open offer of dedication to the City for the rear corner of Lot 1 contained within the creek. The area which would be added to the adjacent creek parcel shall be submitted for review with the tentative map.

11. The 0.3 acre parcel, Parcel C, on the southwestern corner of the site shown to be owned by the homeowners association and used to build an entry feature is not a building lot. The developer shall complete a lot line adjustment conveying at least three-quarters of the entire area of this parcel to the owner of the adjacent Richey property, should both parties agree, and shall be responsible for obtaining the necessary agreements and approvals to convey this property to the Richeys prior to the approval of the tentative map. The portion of this lot added to the existing Richey parcel shall have the same development standards as the existing parcel. In the event that either the Richeys or the developer does not want to complete this lot line adjustment, the developer shall include the parcel in the open space area to be owned and maintained by the project homeowners association.

12. The developer shall offer to convey the proposed 10 ft. wide area shown as the potential lot line adjustment with Locke to the owner of the Locke parcel. The developer shall be responsible for obtaining the necessary agreements and approvals to convey this property to the owner of the Locke parcel prior to the approval of the tentative map. In the event that either the Lockes or the developer does not want to complete this lot line adjustment, the developer shall include the area within the adjacent proposed lots.

13. Prior to tentative map approval: 1) the developer shall (a) identify all of the parcels of land (not on the project site) in which the developer needs to acquire an interest in order to construct or install off-site improvements, and (b) indicate which of those parcels have been purchased, are under contract to purchase, or have been dedicated; (2) as to those off site parcels that the developer has not purchased or is not under contract to purchase, the City Council shall determine whether it is prepared, if the developer is unable to purchase the parcels through negotiation, to initiate condemnation proceedings for all such parcels. If the City Council is not prepared to initiate condemnation proceedings for all such parcels, the Planning Commission/ City Council shall determine whether the tentative map nevertheless conforms to the PUD development plan in order for the tentative map to be approved. As to those parcels that the developer has not acquired or is not under contract to purchase, and for which the City is prepared to condemn, the developer shall be responsible for all City costs incurred in acquiring/ condemning these parcels. These costs include, but are not limited to, appraisals, outside attorney fees (for negotiation as well as litigation), expert witness fees, court costs, the fair market value of the land itself, severance damages, relocation, loss of good will, "Klopping" damages, etc.

14. The final design of the grading and utility connections shown to be installed on the Kass property shall be submitted for review with the tentative map and shall reflect any minor changes to the grading and location of utility lines requested by the owner of said property. The developer shall submit a plan for review and approval by the City Engineer prior to the approval of the final map showing how a satisfactory access will be provided to the existing homes, including the Kass, Locke, Richey, and Humphries residences, at all times during the construction of the subdivision improvements and homes.

Additionally, the developer shall be responsible for coordinating with the owners of these existing residences concerning the location of the new utility laterals to within 3 ft. of the structures per the requirements of the NSSP. The developer shall be responsible for obtaining permission for the construction of said laterals on these private properties and shall bear the entire cost of their installation. Copies of these owners' authorization shall be submitted prior to the approval of the tentative map.

15. The developer shall construct single-story homes on Lots 4 and 5 immediately next to the Carlson residence. A deed restriction shall be recorded prohibiting any future second-story addition on these homes.

16. The maintenance of all private hammerhead drives, except the one connecting to the Independence Drive EVA, shall be the responsibility of all of the property owners of the homes which use the respective drive as an access to their lots. An agreement outlining the maintenance responsibilities, apportionment of costs, etc. shall be submitted for the review and approval of the Planning Director and City Attorney prior to the approval of the final map. No parking shall be permitted on the private hammerhead streets.

17. The private hammerhead drive connected to the Independence Drive EVA shall be increased in width by 4 ft. This private drive shall have two 10 ft. travel lanes, 5 ft. wide planter strips behind the curb, and 5 ft. wide sidewalks. A 3 ft. portion of the sidewalk on both sides of the drive shall be located in the 8 ft. wide P.S.E. over which a public access easement shall be granted. The roadway, planter strips, and sidewalks shall be maintained by the homeowners association.

18. A private drainage easement shall be recorded along the western side property line of Lot 26 for an approved stormwater release from Lot 15. The detail of this stormwater channel/ and or pipe shall be submitted for the review and approval of the City Engineer and Planning Director prior to the approval of the final map. Also, the homeowners association shall be responsible for the maintenance and yearly inspection to ensure that it is unobstructed and in a state of good repair. The City shall be granted the right to enter the easement, but not the obligation, to enforce the maintenance responsibilities of the property owners association and make emergency repairs.

19. No building permit shall be issued or lot sold for any of the new homes within this project until after the new elementary school located on Case Avenue is operational. The applicant may request modification of this condition based on the progress being made on the construction of the new elementary school being planned on Case Avenue or other new elementary school, with the intent being that no home shall be occupied until the school is opened.

Architecture

20. The side and rear building elevations of the proposed production homes shall be revised to include the same amount of detailed articulation and use of building and accent materials as shown on the front building elevation. This articulation includes but is not limited to window sills and trim, wainscoting, etc. These revised elevations shall be submitted for the review and approval by the Planning Director prior to the approval of the final map.

21. All production homes in this development shall utilize medium to dark earthtone colors. Revised colors for the body, trim, and roofs of the production homes shall be submitted for review and approval by the Planning Director prior to approval of the final map.

22. The maximum floor area ratio (FAR) for the flat pad production home lots shall be 30% except for the following twelve lots which may at the time of their initial construction be built up to a maximum of 33%: Lots 10, 11, 16, 24, 25, 26, 34, 35, 36, 45, 46, and 48. No future building additions may be added to these homes. All flat pad production home lots which are initially constructed with a FAR of 30 to 33% may construct a maximum 150 sq. ft. of Class 1 accessory structures on the lot, subject to the City's administrative design review process. These restrictions shall be disclosed to all potential buyers and a deed restriction shall be recorded with these lots prior to the recordation of the final map.

23. The proposed grading plan shall be revised to modify the grading in the southwest corner of Lot 2 to reduce the amount of fill which would be placed in this area by limiting any future slopebank to 5 ft. in height. This revised grading shall be shown on the plan submitted for the review and approval of the Planning Director.

Landscaping and Fencing

24. A revised landscaping plan shall be submitted for review with tentative map that reflects the tree planting and any revisions made to the site plan as part of this PUD approval. This revised landscaping plan shall include the following changes along with any other modifications required in these conditions of approval.

a) The planting plan for the open space areas shall be revised to include the plant species recommended by the consulting arborist, Hortscience, Inc., in their letter dated May 3, 1999, and the project's consulting biologist, Zander Associates. The plants used in these open space areas, as well as the front yards of the production homes and streetscape landscaping shall be predominately native trees, shrubs, and groundcovers. The plants in the open space areas shall be planted in natural-looking, informal clusters and shall be designed to soften the view of the new homes as viewed from the existing residences in Ventana Hills. The location and quantity of the 15 gal. and 24" box size

trees in the open space area shall be as shown on the photomontages.

b) The street tree species for use on "A" Street shall be the same species as those used on the portion of "A" Street within the Greenbriar development immediately to the west of the project site.

c) The three trees recommended to be transplanted in the tree report update, dated May 3, 1999, shall be shown on the landscaping plan in the open space buffer area between the proposed lots and the Ventana Hills subdivision.

d) A low wooden barrier, not exceeding 3 ft. in height, shall be installed at the end of the private driveway serving Lots 35 through 40 to block any headlight glare from entering the homes in the adjacent Ventana Hills subdivision. Shrubbery and other plant materials shall be used to help screen the barrier. Also, landscaping shall be carefully selected and located near the terminus of "E" Court in order to block headlight glare from entering the existing homes.

25. The applicant shall submit detailed landscape and irrigation plans as part of the final improvement plans. These plans should include, where applicable, a street tree planting plan and landscape plans for medians, buffer strips, and any right-of-way landscape areas. The applicant shall install at least two street trees per lot, four per corner lot. The irrigation plan shall provide for automatic controls. Said landscape plan shall be consistent with the landscape plan approved with the tentative map for the project plus any conditions of approval, and shall be detailed in terms of species, location, size, quantities, and spacing.

26. All shrubs shall be a minimum of 5 gallons and tree a minimum of 15 gal., unless otherwise shown on the approved landscape plan.

27. Six inch vertical concrete curbs shall be installed between all paved and landscaped areas.

28. The applicant shall provide root control barriers and four inch perforated pipes for parking lot trees, street trees, and trees in planting areas less than ten feet in width, as determined necessary by the Planning Director at the time of review of the final landscape plans.

29. A revised fencing plan showing the proposed location of both open and privacy fences shall be submitted for review with the tentative map. This revised fencing plan shall utilize privacy fencing predominantly on flat pad lots and to create small private areas in the rear or side yard of sloped lots. Open fencing, such as split rail or corral, shall be used on sloping portions of the site and other highly visible locations. Details of the fencing types shall also be included with this plan.

Northeast Creek

30. The developer shall submit a revegetation plan for the area around the northeast creek for review with the tentative map. The purpose of this plan shall be to reestablish native plant vegetation along the slopes leading to the edge of the creekbank in order to enhance this riparian habitat and to prevent any future erosion of the channel due to surface runoff. This revegetation plan shall be developed with the assistance of a biologist and shall include a plan for the future maintenance of this vegetation as well as the drainage channel.

31. The developer shall have his consulting engineers and biologist reexamine the extent of erosion of the creekbed area and evaluate possible remediation to stabilize the banks and prevent further erosion. This evaluation and possible methods for stabilizing the creekbed shall be submitted for review with the tentative map. The developer shall be responsible for completing the remediation and other creek improvements approved with the tentative map.

32. The northeast creek and adjacent open space area shall be owned and maintained by the project's homeowners association. The developer shall prepare a schedule of the required annual maintenance of all the project's open space areas which includes the requirements of the biologist for the creekbed area and those of the City's wildfire management plan for this area. This maintenance schedule shall be incorporated into the project's CC&Rs. The homeowners association shall be responsible for the completion of this scheduled maintenance as well as any other maintenance or repairs to the creekbed deemed necessary by the City Engineer. The City shall be granted a right-of-entry and maintenance easement to this area for the purposes of completing emergency repairs if required. The revised site plan shall show the location and design of an access driveway extending from the Independence Drive EVA to this creekbed area for use by maintenance vehicles. The surface of the driveway shall be designed to blend into the natural open space environment through the use of open pavers or other such means which provides an all-weather surface. Final design of the material and location shall be shown on the tentative map submitted for the review and approval by the Planning Commission. A maintenance schedule shall also be submitted to the City Engineer and Planning Director prior to the approval of the final map. A section of the fence along the EVA shall be made to function as a locked gate to allow emergency vehicles to use the gravel drive.

33. The developer shall record an open offer of dedication for a public trail easement to the City for the creekbed area and 8.2-acres common open space area on the final map. The design and location of any future trail would be required to be reviewed by the City's Park and Recreation Commission at a public hearing.

Existing Trees

34. The applicant shall comply with the recommendations of the tree report prepared by Hortscience dated July 1997 and updated May 3, 1999. No tree trimming or pruning other than that specified in the tree report shall occur. Protective fencing around all the trees to be preserved shall be installed prior to the commencement of any grading on the site and shall be maintained at all times during the construction. The applicant shall arrange for the horticultural consultant to conduct a field inspection prior to issuance of grading permits to ensure that all recommendations have been properly implemented. The consultant shall certify in writing that such recommendations have been followed.

35. No trees shall be removed other than those specifically designated for removal on the approved plans. The applicant shall post cash, letter of credit, or other security satisfactory to the Planning Director in the amount of $5,000 for each tree required to be preserved, up to a maximum of $25,000. This cash bond or security shall be retained for one year following acceptance of public improvements or completion of construction, whichever is later, and shall be forfeited if the trees are destroyed or substantially damaged.

36. The developer shall provide more detailed plans showing the grading and other proposed improvements around the two large valley oaks (Trees 877 and 879) to be preserved. These detailed plans shall follow the design recommendations in the tree report update prepared May 3, 1999. The location, heights, and materials of any necessary retaining wall at the base of these trees shall be submitted for the review and approval by the Planning Director prior to the approval of the final map. Also, the maintenance of any storm drains installed at the base of these trees shall be the responsibility of the homeowners association. The developer shall disclose these requirements to all potential buyers and shall record deed restrictions on the proposed lots next to these two existing oak trees prohibiting any grading, planting, irrigation, or other improvements within an area designated by the consulting arborist. The deed restrictions shall be subject to the review and approval by the Planning Director and City Attorney prior to the recordation of the final map.

Geotechnical

37. The applicant shall comply with the recommendations of the geotechnical reports prepared by Lowney Associates dated April 10, 1997 and June 25, 1997, as well as those of the City's Peer Reviewer, Cotton, Shires & Associates.. The applicant's geotechnical consultant shall review and approve all foundation, retaining wall, and drainage geotechnical aspects of the final development plans to ensure that the recommendations

have been properly incorporated into the development. The consultant shall certify by writing on the plans or as otherwise acceptable to the Director of Building Inspection that the final development plan is in conformance with the geotechnical report approved with the project.

38. The applicant shall arrange and pay for the geotechnical consultant to inspect and approve all foundation, retaining, wall and drainage geotechnical aspects of project construction. The consultant shall be present on site during grading and excavation operations. The results of the inspections and the as-built conditions of the project shall be certified in writing by the geotechnical consultant for conformance to the approved plans and geotechnical report and submitted to the City Engineer and Director of Building Inspection for review and approval prior to occupancy or acceptance of the public improvements, whichever occurs first.

39. The developer shall install subdrains at the base of all cut slopes throughout the development. A series of subdrains constructed at various depths shall be installed within the open space area along the northern property line of the project site. A plan showing the design and location of these drains shall be submitted prior to the approval of the tentative map.

Building

40. All site improvements and house construction activities shall be limited to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday. All construction equipment must meet DMV noise standards and shall be equipped with muffling devices.

41. At no time shall campers, trailers, motor homes, or any other vehicle be used as living or sleeping quarters on the construction site. All such vehicles shall be removed from the site at the end of each work day.

42. Portable toilets used during construction shall be kept as far as possible from existing residences and shall be emptied on a regular basis as necessary to prevent odor.

43. The applicant shall provide all buyers with copies of the project conditions of approval.

44. All dwelling units in the development shall be constructed to meet Title 24 state energy requirements.

45. All building and/or structural plans must comply with all codes and ordinances in effect before the Building Department will issue permits.

46. The applicant shall submit a building survey and/or a record of survey and a site development plan in accordance with the provisions of Chapter 18.68 of the Municipal Code of the City of Pleasanton. These plans be approved by the Director of Building Inspection prior to the issuance of a building permit. The site development plan shall include all required information to design and construct site, grading, paving, drainage and utilities. Specific items to be indicated on the site development plan necessary to construct the improvements are to be in accordance with the City of Pleasanton Private Development Design Guidelines adopted April 15, 1986.

47. Prior to issuance of a building permit, the applicant shall pay the applicable Zone 7 and City connection fees and water meter cost for any water meters, including irrigation meters. Additionally, the developer shall pay any applicable DSRSD sewer permit fee.

48. The applicant shall submit plot plans for each of the residential lots showing building setbacks and a topographic plan showing grading and drainage. Pad elevations, finish floor elevations, retaining walls, easements, and maximum height of the highest structure are to be indicated on the plan. Plans for custom lots are to be signed by a registered civil engineer. All residential plot plans shall show compliance with 2907(d) and 70012(d) of the Uniform Building Code.

49. The applicant shall submit two copies of the site soils report to the Director of Building Inspection for third party peer review and shall pay for such review at the time specified by the Director, but in all cases before the issuance of a grading permit.

50. The applicant shall submit record tract grading plans showing: 1) the elevation of all four corners of the lot as well as the center of the lot, 2) all top and toe of slope elevations, and 3) the top and toe of all retaining wall elevations. The record grading plan is to be submitted to the Director of Building Inspection before the first house final.

51. The soils engineer shall certify the pad compactions of all lots containing fill to the satisfaction of the Director of Building Inspection prior to the issuance of building permits.

52. Building and situs plans are to be submitted to the Building Department on computer disk in a format approved by the Chief Building Official. Digitized information shall be submitted before requesting a final inspection and should reflect as-built situs and architectural information as approved by the Chief Building Official.

Fire/ Police

53. The developer shall work with the Fire Marshall and Planning Director to determine the type of gate, bollards, or other acceptable mechanism to be used between the terminus of

Independence Drive and the new project emergency vehicle access (EVA). This mechanism shall be designed to prohibit entry by all vehicles except emergency response vehicles and authorized open space area/ creekbed maintenance vehicles. The mechanism shall be designed to allow pedestrians and bicycles to pass through unimpeded. The final design and location of this mechanism and the EVA shall be submitted prior to the approval of the tentative map. Asphalt paving shall not be used for the EVA, but, rather, a decorative paving, such as stamped concrete or interlocking pavers, shall be used as long as it does not impede the use of the EVA as a pedestrian walkway/ bikeway. The EVA shall be revised to provide for a more meandering alignment, subject to the approval of the Fire Marshall, with the purpose of obscuring view of the EVA from Independence Drive. The project's homeowners association shall be responsible for the maintenance of the EVA. A public access easement shall be granted over the EVA.

54. The development shall meet all the requirements of the Pleasanton Fire Code (Chapter 20.24 of the Pleasanton Municipal Code).

55. The site shall be kept free of fire hazards from the start of lumber construction to the final inspection.

56. Approval for the number, type and location of all public and private fire hydrants shall be subject to the approval of the Fire Chief and the City Engineer.

57. Prior to any framing construction, an applicant shall provide adequate fire protection facilities, including, but not limited to, surface roads, fire hydrants, and a water supply and water flow sufficient to City Fire Department Standards to suppress a major fire. If prior to any framing construction an applicant proposes in writing an alternative method of fire protection, the Fire Chief may allow the alternative method of fire protection.

58. All public and private streets, driveways, aisles, and alleys designated as fire lanes by the Fire Chief shall be maintained in accordance with Articles 9 and 10 of the Uniform Fire Code which includes tow of vehicles illegally parked on the fire lanes. Fire lane curbs shall be painted red with "No Parking Fire Lane" or "No Parking Fire Lane" signs installed as required by the vehicle code.

59. All curbs within a 7 1/2 foot radius of a public hydrant shall be painted red, unless modified by the Pleasanton Municipal Code or Fire Chief. Blue street "hydrant markers" shall be installed for all fire hydrants per City of Pleasanton Standard Specifications.

60. The developer shall prepare a wildfire management plan for the project subject to the review and approval of the Fire Marshall and Planning Director prior to the approval of the final map. It shall be the responsibility of the project homeowners association to ensure that this plan is implemented. This wildfire management plan shall be

incorporated in the project CC&Rs.

61. All access restricting gates installed for this development shall be equipped with a remote control mechanism to permit emergency activation from the communications console at the Police Department. This shall consist of direct connection hardware, radio control, or other mechanism approved by the Police Department. All access gates shall be identified on the plans submitted for issuance of building permits and the type of remote control mechanism shall be identified.

Engineering

62. All utilities required to serve any existing or proposed development on-site shall be installed underground, unless otherwise determined by the City Engineer.

63. The applicant shall provide a bond to the City guaranteeing the installation of all common open space and recreational improvements, private streets, street trees, and all common infrastructure improvements shown on the approved development plan or otherwise required as part of this development. The applicant shall provide an itemized cost estimate of said improvements, to be submitted with the bond, for the review and approval the City Engineer prior to approval of the final map. The bond shall be returned to the applicant upon acceptance of all improvements by the City Council.

64. The developer shall install street frontage improvements per Chapter 19.40.010 of the Pleasanton Municipal Code and to the satisfaction of the City Engineer. These improvements may include, but are not necessarily limited to, grading, curb and gutter, sidewalk, paving, storm drain, sanitary sewer, water facilities and non-potable water systems, street lighting, underground utilities, traffic control devices, landscaping, and automatic irrigation systems.

65. The applicant shall submit a final grading and drainage plan prepared by a licensed civil engineer depicting all final grades and on-site drainage control measures, including concrete-lined V-ditches, to protect all cut and fill slopes from surface water overflow. This plan shall be subject to the review and approval of the City Engineer and/or the Director of Building Inspection prior to the issuance of any building permits.

66. The applicant shall submit a refundable cash bond for hazard and erosion control prior to issuance of an Engineering or Building Department permit. The amount of this bond will be determined by the City Engineer.

67. The applicant shall dedicate to the City for street right-of-way purposes those parcels of land intended to be public streets.

68. The applicant shall grant an easement to the City over those parcels needed for public service easements (P.S.E.) and which are approved by the City Engineer or other easements which may be designated by the City Engineer.

69. The design for the line, grade, and structural sections for the streets serving this development shall be subject to final review and approval by the City Engineer.

70. The applicant shall construct vertical P.C.C. curbs and gutters within this development unless otherwise approved by the City Engineer. When the sidewalk is adjacent to the curb and gutter, they shall be poured monolithically.

71. All existing wells on the site shall be removed or sealed, filled and abandoned pursuant to Alameda County Ord. 73-68, prior to the start of grading operations unless Zone 7 retains specific wells for observation wells, or special approval is obtained from the City Engineer for temporary use of an existing well for construction water. Any wells designated for abandonment or any wells, encountered during construction, are to be destroyed in accordance with a permit obtained from Zone 7.

72. All existing septic tanks or holding tanks shall be removed or sealed, filled, and abandoned, pursuant to the requirements of the Alameda County Department of Health Services.

73. The haul route for all materials to and from this development shall be approved by the City Engineer prior to the issuance of an encroachment permit. Independence Drive shall not be used as a construction entrance.

74. The developer shall submit a dust control plan as part of the improvement plans.

75. Storm drainage swales, gutters, inlets, outfalls, and channels not within the area of a dedicated public street or public service easement approved by the City Engineer shall be privately maintained by the property owners or through an association approved by the City. The homeowners association for this project shall be required to perform an annual inspection of all private stormwater collection systems and make the necessary repairs, cleaning, or removal of impediments to these collection systems. Notice of this required maintenance shall be included in the project CC&Rs.

76. The design of the water supply and sanitary sewer systems shall be subject to the review and approval of the City Engineer.

77. Approval of the storm drainage system shall be subject to the review and approval of the City Engineer and Zone 7, as applicable, that the system is adequate, connects to an approved point of discharge, meets any and all applicable requirements of the Alameda

County Flood Control District - Zone 7, meets any and all applicable requirements of the Federal Emergency Management Flood Hazard Program, the California Department of Fish and Game, and meets the immediate and long-range requirements of this development and all upstream areas intended to be drained through this development.

78. Electric power distribution, gas distribution, communication service, cable television, and any required alarm systems shall be installed underground in a joint utility trench unless otherwise specifically approved by the City Engineer or Director of Building Inspection for on-site.

79. The applicant shall be responsible for the installation of the street lighting system serving the development. Street lighting for the development shall be designed and located so as to minimize visibility to the existing Ventana Hills neighborhood to the greatest extent possible while still meeting minimum safety requirements. The height of fixtures shall be minimized and shields shall be installed to prevent view of the bulbs from the homes in Ventana Hills. The design of this streetlighting shall be submitted for the review and approval of the City Engineer and Planning Director prior to the approval of the final map.

80. Any damage to existing street improvements during construction on the subject property shall be repaired to the satisfaction of the City Engineer at full expense to the developer. This shall include slurry seal, overlay, or street reconstruction if deemed warranted by the City Engineer.

81. The applicant's contractor(s) shall obtain an encroachment permit from the City Engineer prior to moving any construction equipment onto the site.

82. The applicant shall comply with the City's non-point storm drain run-off ordinance.

83. The applicant shall label all on-site storm drain inlets with the wording, "No Dumping -- Drains to Bay" using City-approved methods and materials.

84. Prior to the commencement of any clearing, grading, or excavation, the applicant shall submit a copy of the State Water Resources Control Board Notice of Intent (NOI) for coverage under the State Construction Storm Water General Permit.

85. The applicant shall include erosion control/storm water quality measures on the final grading plan which shall specifically address measures to prevent soil, dirt, and debris from entering the storm drain system. Such measures may include, but are not limited to, hydroseeding, hay bales, sandbags, and siltation fences and are subject to the review and approval of the City Engineer/Director of Building Inspection. If no grading plan is required, necessary erosion control/storm water quality measures shall be shown on the

site plan submitted for an on-site permit, subject to the review and approval of the Director of Building Inspection. The applicant is responsible for ensuring that the contractor is aware of and implements such measures.

86. The applicant shall include erosion control measures on the final grading plan, subject to the approval of the City Engineer. The applicant is responsible for ensuring that the contractor is aware of such measures. All cut and fill slopes shall be revegetated and stabilized after completion of grading, but in no case later than October 15. Hydroseeding shall be accomplished before September 15 and irrigated with a temporary irrigation system to ensure that the grasses are established before October 15. No grading shall occur between October 15 and April 15 unless approved erosion control/storm water quality measures are in place, subject to the approval of the City Engineer/ Director of Building Inspection. Such measures shall be maintained until such time as permanent landscaping is place.

87. The applicant shall submit a construction Best Management Practices (BMP's) program for review and approval by the Planning Director prior to issuance of building and/or grading permits. These BMP's shall be implemented by the general contractor and all subcontractors and suppliers of materials and equipment. Construction site cleanup and control of construction debris shall also be addressed. Failure to comply with the approved construction BMP may result in the issuance of correction notices, citations, or a stop work order.

88. The applicant is responsible for implementing the following measures during all construction phases of the project:

a. Gather all construction debris on a regular basis and place it in a dumpster or other container which is emptied or removed an a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to storm water runoff pollution.

b. Remove all dirt, gravel, rubbish, refuse, and green waste from the street pavement and storm drains adjoining the site. Limit construction access routes onto the site and place gravel on them. Do not drive vehicles and equipment off paved or graveled areas during wet weather. Broom sweep the street pavement adjoining the project site on a daily basis. Scrape caked-on mud and dirt from these areas before sweeping.

c. Install filter materials (such as sandbags, filter fabric, etc.) at the storm drain inlet nearest the downstream side of the project site in order to retain any debris or dirt flowing in the storm drain system. Maintain and/or replace filter materials to ensure effectiveness and to prevent street flooding.

d. Create a contained and covered area on the site for the storage of bags, cement, paints, oils, fertilizers, pesticides, or other materials used on the site that have the potential of being discharged into the storm drain system through being windblown or in the event of a material spill.

e. Never clean machinery, equipment, tools, brushes, or rinse containers into a street, gutter, or storm drain.

89. Ensure that concrete/gunite supply trucks or concrete/plaster operations do not discharge wash water into street, gutters, or storm drains.

Miscellaneous

90. The developer acknowledges that the City of Pleasanton does not guarantee the availability of sufficient sewer capacity to serve this development by the approval of this case, and that the developer agrees and acknowledges that building permit approval may be withheld if sewer capacity is found by the City not to be available.

91. This approval does not guarantee the availability of sufficient water to serve the project. The City shall withhold building permits for the project if at the time building permits are applied for, mandatory water rationing is in effect, unless the City has adopted a water offset program and unless the developer is participating in the program. Notwithstanding the developer's participation in such a program, the City may withhold building permits if the City determines that sufficient water is not available at the time of application of building permits.

92. The applicant shall record CC&R's at the time of recordation of the final map which shall create a homeowners association for the development. The CC&R's shall be subject to the review and approval of the City Attorney prior to recordation of the final map. Common areas within this development not covered by the areawide NSSP homeowners maintenance association shall be maintained by the homeowners association for this project. The project's homeowners association shall be responsible for implementing all storm water measures and for the maintenance of all private streets, private utilities, creekbed and open space area, and other common areas and facilities on the site. Landscaping shall be designed with efficient irrigation to reduce runoff, promote surface filtration, and minimize the use of fertilizers, herbicides, and pesticides which can contribute to storm water runoff pollution. All landscaping extending to the sidewalk along "A" Street within the development shall be maintained as part of the NSSP homeowners maintenance association. The developer shall secure the necessary agreements making these lots and streetscape areas in this development part of this areawide maintenance association prior to the approval of the final map. The developer shall provide a plan outlining which of the common areas would be maintained by this

homeowners association and which by the NSSP homeowners maintenance association for the review and approval by the Planning Director prior to the approval of the final map. The City shall be granted the rights and remedies of the association, but not the obligation, to enforce the maintenance responsibilities of the property owners association.

93. The CC&R's for the project shall prohibit the parking of boats, campers, and trailers on site.

94. The developer shall pay any and all fees to which the property may be subject prior to issuance of building permits. The type and amount of the fees shall be those in effect at the time the building permit(s) is issued.

95. The developer shall work with the Pleasanton Unified School District and the City Planning Director to develop a program, in addition to the school impact fees required by State law and local ordinance, to off-set this project's long-term effect on school facility needs in Pleasanton. This program shall be designed to fund school facilities necessary to off-set this project's reasonably related effect on the long-term need for expanded school facilities to serve new development in Pleasanton. The method and manner for the provision of these funds and/or facilities shall be approved by the City and in place prior to approval of the final map.

96. This development plan shall be of no further validity and the applicant shall be required to submit the same or new development plan for City approval prior to development of the site in the event that a final map is not recorded within 2 years of PUD approval.

97. Any proposed phasing of this development shall be depicted on the tentative tract map and shall include narrative explaining any proposed phasing. Unless a phasing plan for improvements is approved by the Planning Director, the applicant shall complete all of the on-site improvements at one time (including all improvements around future building pads). All remaining pad areas shall be seeded and kept in a neat and weed-free manner at all times.

98. The developer shall pay its pro rata share of the NSSP infrastructure improvement costs as a Funding Developer prior to the approval of the final map.

99. This PUD development plan shall lapse in the event the Happy Valley annexation (Annexation #144) scheduled for voter approval in November 1999 is rejected.

Chapter 18.76

H-P-D HILLSIDE PLANNED DEVELOPMENT DISTRICT

Sections:

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Article I. General Provisions

18.76.010 Purpose.

The city is located in the Livermore-Amador Valley. Within the city's incorporated boundaries and within its sphere of influence are a series of major and minor hills. These hills constitute a significant topographical feature of the community because they are visible to all persons traveling on I-580 and I-680, as well as to citizens residing in and around the community. Although most of the development within the city, caused by the migration of substantial numbers of people, has occurred in the flatlands, some development has occurred in the hills and more development in the hills will occur in the future. In order to insure that a harmonious visual and functional relationship will exist between the existing natural hillside environment and the growing manmade environment, development standards specifically designed for hillside development are required. It is therefore the declared intent of the city that appropriate undeveloped land in hillside areas be placed in a hillside planned development district to be identified by the initials H-P-D, in order to accomplish the following:

A. To preserve significant features of a hill area in essentially their natural state as part of a comprehensive open space system;

B. To encourage in hill areas an alternative approach to conventional flatland practices of development;

C. To minimize grading and cut and fill operations consistent with the retention of the natural character of the hill areas;

D. To minimize the water runoff and soil erosion problems incurred in adjustment of the terrain to meet on-site and off-site development needs;

E. To achieve land use densities that are in keeping with the general plan; however, in order to retain the significant natural features of the hill areas, densities will diminish as the slope of the terrain increases;

F. To insure that the open space as shown on any development plan is consistent with the open space element shown on the general plan; and

G. To preserve the predominant views both from and of the hill areas and to retain the sense of identity and imageability that these hill areas now impart to the city and its environs. (Prior code § 2-2.3201)

18.76.020 Permitted uses.

The following uses may be permitted in the H-P-D district:

A. Single-family dwellings and planned unit developments;

B. Recreation facilities, either for general public use or for the exclusive use of the residents of the subdivision or series of subdivisions of which the recreation facilities are a part;

C. Recreational vehicle storage, stables, day nurseries, child care centers and managerial offices where any such use is owned by and used exclusively for the residents of the subdivision or series of subdivisions which contain such use;

D. Schools, public or private, attendance at which satisfied the compulsory laws of the state;

E. Churches and similar religious institutions;

F. Public facilities, such as administrative offices and similar uses, but not including storage yards, corporation yards, or similar uses;

G. Employee housing (agricultural) that complies with California Health and Safety Code Sections 17008, 17021.5 and the other applicable provisions of the Employee Housing Act at California Health and Safety Code Section 17000 et seq., and to include a residential safety management plan;

H. Supportive housing that provides shelter for six or fewer persons in a dwelling unit, subject to the provisions of Chapter 18.107;

I. Transitional housing that provides shelter for six or fewer persons in a dwelling unit, subject to the provisions of Chapter 18.107;

J. Other uses accessory to any permitted use. (Ord. 2062 § 2, 2013; Ord. 2061 § 2, 2013; prior code § 2-2.3202)

18.76.030 Conditional uses.

Agricultural uses may be permitted in the H-P-D district subject to the granting of a use permit pursuant to the procedure and criteria specified in Chapter 18.124 of this title. (Prior code § 2-2.3203)

18.76.040 Permit required.

A. Property zoned pursuant to the provisions of this chapter shall neither be developed nor shall any grading permit be issued pursuant to any provisions of this code until a hillside planned development (H-P-D) permit has been obtained pursuant to the provisions of Article II of this chapter.

B. As used in this section, "developed" means the submittal of any plans required by this code prior to the commencement of construction of any improvements, excepting therefrom those permitted by Section 18.76.070. (Prior code § 2-2.3204)

18.76.050 Property development standards.

The following property development standards shall apply to the H-P-D district:

A. Dimensions. There shall be no minimum yards, lot area, lot width, lot frontage or distance between buildings or maximum lot coverage except as may be required by an approved H-P-D permit.

B. Building Height. No building shall exceed two stories in height, exclusive of covered parking in the same structure.

C. Parking.

1. Quantity. For residential use there shall be not less than two covered parking spaces designated for the exclusive use of the occupant of every dwelling unit. In addition to covered parking spaces there shall be a quantity of open parking spaces not in driveways, equal to or greater than the number of dwelling units.

2. Location. The open parking spaces required by subsection (C)(1) shall be located within two hundred feet of every dwelling unit provided the terrain is appropriate for such placement. Wherever possible, open space parking shall be placed in groups, if six or more spaces are required; groupings may include parking within street rights-of-way, parking bays, and small parking lots, or any combination of the above.

3. Nonresidential Use. Parking for nonresidential uses shall also be required in a quantity commensurate with the specific use.

4. Covered Parking. No covered parking shall exceed one story in height.

D. Landscaping. All development in H-P-D districts shall include a combination of landscaping consisting of intensely planted and maintained areas and open space preserved in its natural condition. Unless otherwise stated in the approval of an H-P-D permit, natural open space may be used for livestock grazing.

E. Subdivisions. The final subdivision, land division or parcel map shall show not more than one dwelling unit on any one lot and commonly owned land and facilities on one or more additional lots.

F. Common Area. No final subdivision map or parcel map shall be recorded until documents pertaining to the maintenance of the privately owned open space and other facilities owned by or used in common by the subsequent owners of the various real properties within the subject development shall have been approved by the city attorney. (Prior code § 2-2.3205)

18.76.060 Signs.

Where applicable, the sign regulations for the R districts as set forth in this chapter shall apply to the H-P-D districts. (Prior code § 2-2.3206)

18.76.070 Interim uses.

A. If any land has been zoned H-P-D but no H-P-D permit has been approved thereon, no new use shall be established on such land. Any single-family residential or agricultural buildings lawfully existing at the time of the establishment of H-P-D zoning on that property may be enlarged, structurally altered, or accessory buildings may be constructed. Any remodeling or construction allowed by this section shall conform to the conditions to use applicable to the R-40 district.

B. "Agricultural building," as used in this chapter, shall mean any structure, except fences, for the purposes of housing farm animals or farm equipment and shall specifically exclude any building used for processing farm products on a commercial basis. The remodeling or construction of any building as permitted by this chapter shall conform to the various conditions to uses required in the R-40 district. (Prior code § 2-2.3207)

18.76.080 Grading.

The grading of land and maximum height of graded slopes shall be governed by provisions of the Uniform Building Code, the provisions of Title 19 of this code relating to subdivisions, and/or the provision of a comprehensive grading ordinance adopted by the city council. (Prior code § 2-2.3208)

Article II. Hillside Planned Development Permit

18.76.090 Purpose.

The purpose of the H-P-D permit is to assure that the intent and purpose of the hillside planned development district are effectuated. (Prior code § 2-2.3209(a))

18.76.100 Definitions.

The terms and symbols used in this section shall have the following meanings:

A. "Base density" means the number of dwelling units per gross acre as determined by Section 18.76.150(A).

B. "Contour interval" means the difference in elevation between adjacent contour lines on a topographical or planimetric map.

C. "I" means the contour interval measured in feet.

D. "L" means the summation of the length of all contour lines measured in feet.

E. "Open space" means landscaped areas together with areas retained in their original state without enhancement by landscaping, both of which are owned in common by the owners of the residential lots within a development.

F. "Ridge" means a connected series of major and minor hills.

G. "Ridgeline" means a ground line located at the highest elevation of the ridge running parallel to the long axis of the ridge.

H. "Weighted incremental slope (WIS)" means a number assigned to a specific parcel of land for the purpose of determining its relative slope conditions and is determined according to the following formula:

$$\text{WIS} = \frac{0.0023\text{IL}}{\text{Area in Acres}}$$

The calculation of the WIS shall be performed pursuant to the criteria and procedure set forth in Section 18.76.140(E). (Prior code § 2-2.3209(b))

18.76.110 Procedures.

Following are the procedures for processing an application for an H-P-D permit:

A. Review by Planning Commission. Upon receipt of the data required by Section 18.76.140, the planning commission shall hold a public hearing to consider the request for an H-P-D permit. The public hearing required by this section shall be given pursuant to the provisions of Government Code Section 65854. Following the public hearing, the planning commission may approve, conditionally approve, or disapprove the requested H-P-D permit. The decision of the planning commission shall be placed in resolution form and the reasons for the decision shall be specified therein. A copy of the resolution shall be transmitted to the city council and to the applicant as soon as possible after review by the planning commission. A synopsis of the planning commission's action and rationale shall be transmitted to the city council and the applicant where the planning commission's review will not occur until after the expiration of the appeal period specified in subsection E of this section; said synopsis shall be the unofficial report of the planning commissions pending receipt of the required resolution.

B. Review by City Council. Upon receipt of a resolution from the planning commission recommending approval of an H-P-D permit, the city clerk shall schedule a public hearing before the council with notice of the time, date and place of public hearing being given, pursuant to Government Code Section 65854. Following the public hearing the council may approve, conditionally approve, or disapprove the H-P-D permit. In approving a permit, the council may modify the recommendations of the planning commission. In making its decision, the council shall be subject to the same requirements as are placed on the commission by this section.

C. Referral. Council may also refer the matter back to the planning commission for further report and recommendation. The planning commission shall not be required to hold a public hearing on a matter referred back to it, but shall submit its report and recommendation within 40 days after the reference; otherwise the proposed modifications shall be deemed approved.

D. Denial by Planning Commission. If the planning commission recommends denial of an H-P-D permit application, no further action by the city council is necessary, unless the planning commission's decision is appealed to the city council by the applicant pursuant to the provisions of Section 18.144.020 of this title. (Prior code § 2-2.3209(c))

18.76.120 Findings.

In recommending approval of, or in approving an H-P-D permit, the following findings must be made:

A. The approval of the plan is in the best interests of the public health, safety and general welfare;

B. Off-site and on-site views of the ridges will not be substantially impaired. In determining which ridges are subject to this finding, the following criteria shall be used: the intents and purposes set forth in Section 18.76.010 of this chapter shall be followed;

C. Any grading to be performed within the project boundaries takes into account the environmental characteristics of that property, including, but not limited to, prominent geological features, existing streambeds and significant tree cover, and is designed in keeping with the best engineering practices to avoid erosion, slides or flooding, to have as minimal an effect on said environment as possible;

D. Streets, buildings and other manmade structures have been designed and located in such a manner as to complement the natural terrain and natural landscape;

E. Adequate fire safety measures have been incorporated into the design of the plan;

F. The plan conforms to the purpose and intent of the hillside planned development district; and

G. The plan is consistent with the city's general plan. (Prior code § 2-2.3209(d))

18.76.130 Conditions.

In the recommendation of approval and in the approval of an H-P-D permit, conditions may be imposed which are deemed necessary to protect the public health, safety and general welfare in line with the standards set forth in this article. (Prior code § 2-2.3209(e))

18.76.140 Required data.

Any application for an H-P-D permit shall be accompanied by the following data prepared by a design team consisting of an architect, landscape architect and registered civil engineer:

A. A site plan showing general locations of all streets, on-street and off-street parking, bicycle paths, riding trails, hiking trails, buildings and other manmade structures; typical elevations or perspective drawings sufficient to show building height, building materials, colors, and general design; perspective drawings showing the relationship after development of the proposed buildings and the topographic features of the site; and a table listing land coverages by percentage and acreage for the following: open space (intensely landscaped and natural) coverage by housing unit roof, parking (covered, open, off-street), streets, sidewalks, paths, recreational facilities;

B. A topographical map showing existing contours and proposed lot lines, which may be integrated with the site plan described in subsection A of this section; the lot lines may be omitted if building locations on the site plan make proposed lot lines obvious;

C. A topographical map at a scale not smaller than one inch equals 100 feet showing contour lines existing prior to grading at an interval of not more than 10 feet; a grading plan showing increments of the depths of all cuts and fills in various colors or any similar display which shows the cuts, fills, depths thereof in colors; and a slope classification map showing, in contrasting colors, all land which has less than a 10 percent slope, that land which has a slope between 10 percent and twenty percent, that land which has a slope between twenty percent and 25 percent, and all land which has a slope greater than 25 percent. The director of housing and community development, or his or her designated representative, may allow a reduction in the scale of the map or an increase in the contour interval when the size of a parcel or its terrain require such changes to make the map more meaningful;

D. Profiles showing the relationship of the proposed project to any dominant geological or topographical features which may be on or in the vicinity of the proposed project;

E. The calculation of the WIS factor shall be prepared by a registered civil engineer or a licensed land surveyor, and the following criteria and procedure shall be used:

1. The contour map shall have 10-foot contour intervals;

2. The interval used in WIS calculation shall be two feet and interpolation of the contour intervals shall be made if required;

3. Topographic map scale:

Parcel Size	Scale
Less than 2.0 acres	1″—20′
2.0 acres to 20 acres	1″—50′
Over 20 acres	1″—100′

F. Any tree(s) including size and species as defined in Chapter 17.16 of this code, whether or not such tree(s) is to be removed, or destroyed, on the site plan or on a separate plat;

G. Sufficient dimensions to show right-of-way widths, pavement widths, radii of curvature of center lines, street grades, whether streets are to be public or private, and all proposed frontage improvements on new and existing streets;

H. A current preliminary soils and geological report prepared by a registered civil engineer and a registered geologist;

I. A detailed landscaping plan showing the natural open space which will remain upon completion of development, all existing trees (and indicating which trees are scheduled for removal), and the precise boundaries of additional landscaping; the landscape plan shall include container size of all trees and shrubs, species of all plant material, irrigation system plan, street lighting, low level path lighting, street furniture and fencing materials, dimensions and locations;

J. A statement in writing stipulating to the total number of bedrooms to be constructed; and

K. The initial plan shall indicate the density allowed by subsection A of Section 18.76.150 and the location of the proposed units. Any request for density adjustments allowed by subsection B of Section 18.76.150 shall be shown on an alternate plan detailing the location of the additional units and amenities.

Notwithstanding the requirements of this subsection, an applicant for an H-P-D permit for the development of five or more acres, which development will occur in stages, may submit general information relating to subsections A and I of this section for review by the planning commission. Precise and detailed plans setting forth the information required by these items shall be submitted to the planning commission for its review and approval prior to the approval of a tentative subdivision map, building permit or other construction authorized by the H-P-D permit. (Prior code § 2-2.3209(f)

18.76.150 Density.

A. Base Density. A base density for a piece of property shall be determined by the following:

Percent slope	10%	15%	20%	25%	Greater than 25%
*WIS	9.9	14.9	19.6	24.2	Greater than 24.2
Base Density	3.5	2.8	1.8	1	0.2

*Corrected number values.

Any WIS not shown in the table shall be determined by interpolation, using the graph set forth in Exhibit A of the ordinance codified in this chapter, and incorporated in this chapter by reference.

B. Density Adjustments. The effectiveness of hillside development can be affected by a number of factors such as the physical characteristics of a specific parcel, the amount of landscaped and natural open space existing within a development, the existence of amenities within a development and the number of people who will reside in the hill area. Therefore, in order to encourage hillside developments which take into consideration the factors provided in this subsection, adjustments may be made in the base density in the recommendation for approval and approval of an H-P-D permit, pursuant to any of the following:

1. The existence of open space beyond that required by Section 18.76.160;
2. The existence of amenities or on-site or off-site improvements which are not normally found or required in residential developments;

3. The existence of a mixture of housing types which provides a variation in the appearance of the development and allows a range of housing prices;
4. The existence of landscaping of a type, size and quantity which exceeds that of a standard residential development;
5. The existence of a topographical feature, including, but not limited to, a cliff or deep ravine, or extensive land area over 25 percent slope, of a magnitude which causes the WIS to be significantly greater than would be the case if the topographic feature was not considered; and
6. The offer to and acceptance by the city of land in excess of the parkland dedication requirements of Chapter 19.44 of this code. (Prior code § 2-2.3209(g))

18.76.160 Percentage open.

The percentage of the parcel to be developed which must remain in open space and/or public parkland shall be a minimum of 25 percent plus one and one-half times the WIS factor. Public parkland shall include only those areas which are offered for dedication as public parks and which are accepted by the city. (Prior code § 2-2.3209(h))

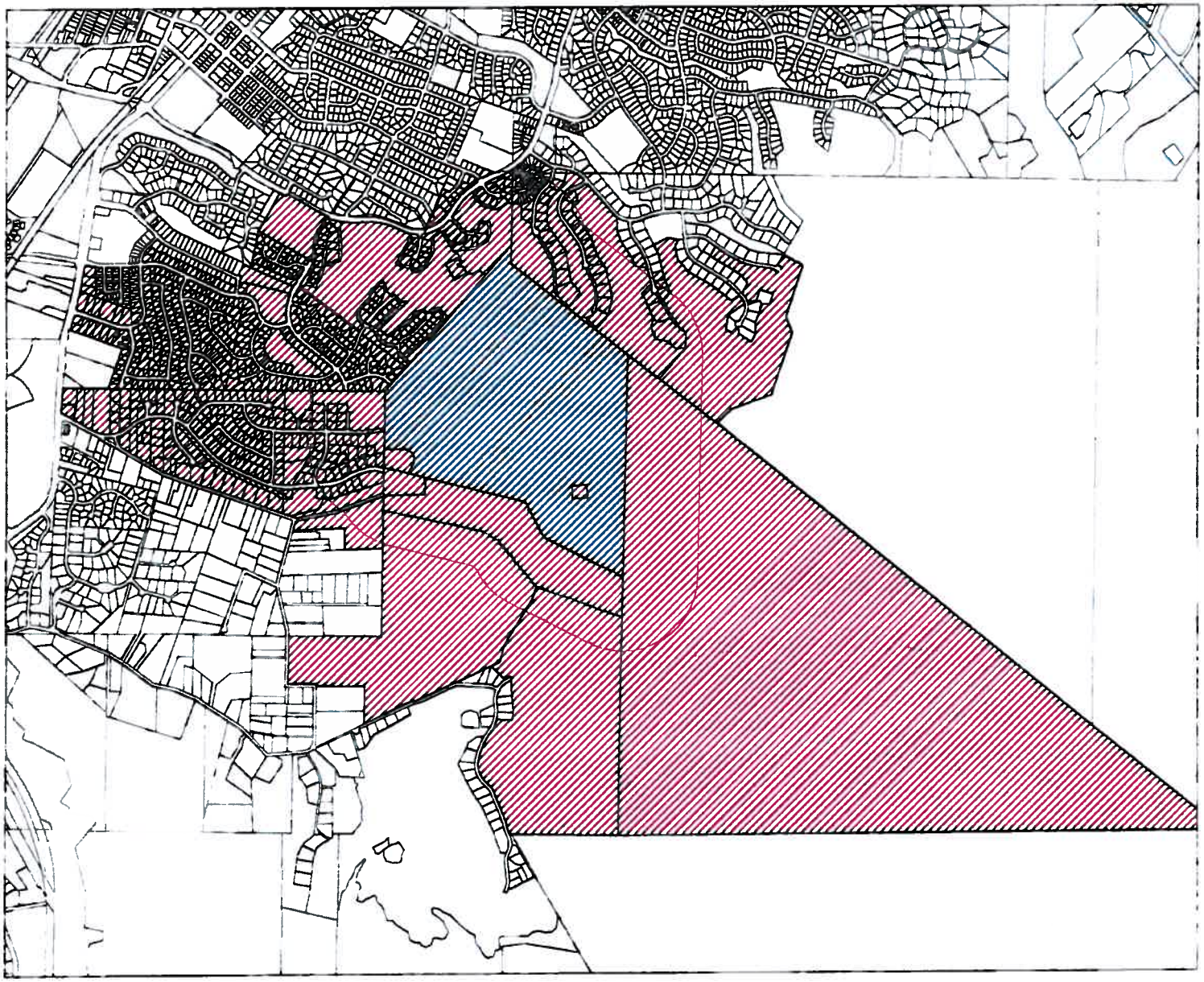
18.76.170 Grading control.

A. Size and Treatment. In order to keep all graded areas and cuts and fills to a minimum, to eliminate unsightly grading and to preserve the natural appearance and beauty of the property as far as possible as well as to serve the other specified purposes of this chapter, specific requirements may be placed on the size of areas to be graded or to be used for building, and on the size, height and angles of cut slopes and fill slopes and the shape thereof. In appropriate cases retaining walls may be required.

B. Restrictions. All areas indicated as natural open space on the approved development plan shall be undisturbed by grading, excavating, structures or otherwise except that riding trails, hiking trails, picnic areas, stables and similar amenities may be placed in natural open space pursuant to the approval of an H-P-D permit.

C. Landscaping. The H-P-D permit shall include the planting of newly created banks or slopes for erosion control or to minimize their visual effect. (Prior code § 2-2.3209(i))

EXHIBIT I



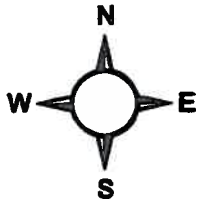
PUD-25

City of Pleasanton

GIS

Department

Notification Area



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